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A study of the perception of the impact of modeling on the development of commitment to action in Decision Conferencing.

Margaret Ann Wood

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Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university. To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgment has been made.

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ABSTRACT

Managers are increasingly faced with making complex decisions in turbulent organisational environments. This has led to greater information processing demands. Increasingly organisations try to deal with this in such a way that many of these decisions are now made in a group environment.

The increase in group decision making has generated a corresponding intensification in the interest in options available to support such decision making. One such approach is a Group Decision Support System (GDSS) referred to as Decision Conferencing. However, Decision Conferencing rests on the unsupported key premise that the computer modeling, which forms an intrinsic part of the process, leads to shared understanding and commitment – the stated goals of the process. The application of Decision Conferencing to important organizational issues continues, yet prior to this study its fundamental premise was both empirically unsupported and potentially under-theorised.

This theory-building research demonstrates that the interface between these concepts is more complex than the literature suggests and that the concepts themselves are problematic. Shared understanding is essentially a dependent variable, with factors such as comprehension of the modeling process impacting on the degree to which this is developed. In addition, many aspects of commitment fall outside of the domain of the Decision Conference workshop e.g. the individual's sense of responsibility and degree of commitment to their profession. The idea of commitment appears to fall more into the arena of managerial responsibility and change management and it is partly how the outcomes are managed after the Decision Conference which will be crucial to their implementation. Within this study it appears that the most a Decision Conference can offer is the 'buy-in' or constructive involvement of the individual participant; the assurance of an unassailable case to which all participants have contributed, for the adoption of the outcomes; and the confidence in the outcomes that this brings.

All of this suggests that a higher order goal which subsumes these factors should be considered when re-conceptualising the Decision Conferencing experience. It is suggested here that Decision Quality is a more appropriate goal for the Decision Conferencing process. In essence this is an expansion of the existing 'best bet'

concept already endorsed in the Decision Conferencing literature. The thesis presents a number of conditions for assuring decision quality e.g. a democratic environment for decision making; mutual respect and an encouragement of diversity. It is also argued that it falls to the facilitator to encompass all of these factors.

Given the above, it is also suggested that it is appropriate to consider an alternative conceptualization of Decision Conferencing which facilitators of public sector groups might adopt. This revised conceptualization is drawn from complexity theory. Incorporating the findings from this study a more strongly theorised facilitation approach, entitled Quality Facilitation Practice (QFP) has been developed.

Taking into account all of the above a revised model for Decision Conferencing in the public sector is presented, incorporating both QFP and the higher order goal of Decision Quality.

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1. CHAPTER ONE: THE RESEARCH PROBLEM

1. 1 Introduction: Background to the Study

Decision making is fundamental to organisational functioning, although it is usually trivial, either because the subject is of little importance or because the best option is obvious (von Winterfeldt & Edwards 1986: 1). However, there are times when organisations are required to make what they see as "hard" decisions. When addressing strategic issues, organisations will often find themselves confronting complex, ill structured problems with no clear solution. It may be a choice situation where the future direction of the organisation needs to be determined; perhaps the issue is one of resource allocation; or the problem may be determining in which location the new head office should be established.

In trying to resolve issues such as these, those involved may also need to take into account the interests of multiple stakeholders, the potentially far reaching consequences of their actions and bear in mind the typically dynamic environmental context. Decision makers have to make decisions and take actions in the present that will have uncertain consequences. As Stacey 1993 states

> As soon as we approach the task of identifying successful future strategies and strategic management processes, we are confronted by the problems of uncertainty and ambiguity...The world in which managerial actions bear fruit will be different to the one in which they were initiated.

Nor is the difficulty only in the determination of the factors that need to be considered, but also how they should be incorporated into the decision making process. With improvements in information technology, decision makers now have vast amounts of data available to them, however this very abundance can in turn add to the complexity of the decision making climate and may also result in critical information not being taken into account in the final decision. As Naisbitt & Aburdene (1990: 3) note:

> Without a structure, a frame of reference, the vast amount of data that comes your way each day will probably whiz right by you.

Based on the need to somehow manage this complexity there has emerged a great deal of research in the area of systems specifically designed to support decision making (e.g.Pid: 3).

Also associated with this rise in complexity is a move towards more team based organisations (Finnegan & O'Mahony 1996: 211). Increasingly organisations try to manage this complexity and risk through the application of group decision making (Van den Honert 2001:275; Slevin et al. 1998: 179). This in turn has led to a rise in interest in Group Decision Support Systems (GDSS).

A GDSS consists of a computer or computers and software, generally set up as part of a meeting environment. The GDSS essentially provides tools to a group to either facilitate or manage group communications or to assist groups in decision analysis.

It was due to the first point regarding the facilitation of communication that the 'D' for decisions has since been dropped from GDSS, to create the more encompassing term Group Support Systems (GSS) (Valacich & Dennis 1993). However, as this study is focused firmly on the decision component of a computer supported environment, the literature and definitions related to Group *Decision* Support Systems are most relevant here.

One of the earliest definitions of GDSS is that presented by DeSanctis & Gallupe (1987: 589), where GDSS were described as systems which…

> …combine communication, computer, and decision support technologies to support problem formulation and support in group meetings.

While Phillips (1988a) offered a more expanded definition as follows:

> The use of information technology to help groups of people consider uncertainty, form preferences, make judgments and take decisions within prescribed limits.
>
> (Phillips, 1988a: 210)

This reflects the purpose of a GDSS as presented by DeSanctis & Gallupe (1987: 589) ie:

> A GDSS aims to improve the process of group decision making by removing barriers, providing techniques for structuring decision analysis, and systematically directing the pattern, timing, or content of discussion.

In alignment with the above, the definition used within this study is the more recent description presented by Zuurbier (1992:60) who defined GDSS as…

> …an interactive computer-based system which facilitates solution of ill-structured problems by a set of decision makers working together as a team.

There exist various forms of GDSS, however this study falls within the context of a specific type of support system, known as Decision Conferencing.

Decision Conferencing utilizes computer modeling to support group decision making and fits well into Phillips (1988a) definition. The particular process rests on the premise that it provides two crucial benefits to groups trying to solve problems such as those outlined in the introduction. These benefits are that:

1. participants develop a shared understanding of the issue they are facing and
2. the Decision Conferencing process fosters the generation of a commitment to act on the decision made.

It is important to note that whilst this assumption forms the basic justification for Decision Conferencing, there is no direct empirical evidence in the Decision Conferencing literature to support this claim. The focus of the proposed research therefore was to partially address this gap and explore this relationship from the participants' perspective.

1. 2 Research Questions

Following on from the preceding discussion, the major purpose of this study is to explore the following question:

> ***To what extent is the modeling process perceived by participants as leading to the development of a shared understanding and commitment to action in the application of Decision Conferencing?***

This leads to the following sub-questions regarding the application of Decision Conferencing to strategic issues:

I. The Modeling Process and Shared Understanding from a participant's perspective

   A. Is the Modeling process perceived by participants as generating a Shared Understanding of the issue(s) to be addressed?

   B. What is the perceived relationship between the key aspects of the modeling process and the development of a Shared Understanding?

II. The Modeling Process and Commitment to Action from a participant perspective

A. Is the Modeling process perceived by participants as generating a Commitment to Action?

B. What is the perceived relationship between the key aspects of the modeling process and the development of Commitment to Action?

C. What is the perceived relationship between Shared Understanding and Commitment to Action?

In exploring these questions, this study utilised a modified case study approach, incorporating both qualitative and quantitative data, however the primary research focus was on the in-depth exploration of the qualitative data. Refer to Section 1. 4: Research Design and Method below for a more detailed overview.

1. 3 Significance of the Study

Decision Conferencing is a potentially valuable tool, but one which rests on the unexplored premise that its unique approach, incorporating computer modeling of decision situations, generates a commitment to action amongst participants. Whilst the literature regarding Decision Conferencing identifies the importance of generating this commitment to action, it fails to spell out exactly how this is accomplished. Despite the paucity of research in this area, Decision Conferencing continues to be applied to assist organisations to make critical decisions. This ongoing application of Decision Conferencing to strategic issues serves to further underscore the importance of this study as the choices participants make and their commitment to act on preferred courses of action may affect not only those participating in the decision process, but also the various stakeholder groups such as customers, employees, shareholders and the wider community. In seeking to address this gap in the literature, this study has clear long-term consequences for the way Decision Conferencing is applied and of the value of focusing on the development of commitment to action in Decision Conferencing.

The study is also of value in terms of the methodology and research design developed to explore the research questions. The actual design is briefly outlined in the next section and addressed in detail in Chapter Three.

Generally, however, qualitative data analysis does not come with a prescriptive set of instructions. While there is a great deal of information regarding the various methods available for qualitative data *collection*, this is less true with regard to detailed discussion of specific methods for *analysis*. There are a few exceptions to this including Strauss & Corbin (1990); Miles & Huberman (1994); Silverman (1993) and Dey (1993), although none of these proved suitable for this study.

As Creswell (1994) notes, qualitative data analysis is an eclectic process where quite different approaches may be equally appropriate. However, the underlying assumption in this study was that the purpose of the analysis was to make sense of the data gathered, with particular (but not exclusive) reference to the research objectives. It was therefore felt that it was important to apply a consistent analytical approach across the case data to facilitate understanding and enable comparisons where possible. This strategy is also cited by Silverman (1993) and Tashakkori (1998) as a means of increasing the rigour of qualitative research. In order to achieve this, a systematic procedure was developed within this study, supported by a strong rationale and providing a firm foundation from which conclusions could be drawn. It is the development and refinement of this approach that is also seen as a strong contribution to researchers generally.

In summary, this study makes a number of significant contributions to both the specific area of concern i.e. Decision Conferencing and in terms of research methodology. Specifically:

- a contribution to the literature on Decision Conferencing by providing empirical evidence in relation to the links that form the central tenets of Decision Conferencing.
- development of a revised model with implications for theory and practice in Decision Conferencing.
- a contribution to qualitative research generally through the development and application of a rigorous analytical approach for qualitative data.

- validation of new measures for commitment within Decision Conferencing, which can also be used within other Group Model Building (GMB) applications.
- potential application to the wider group decision making field. While this study has focused on shared understanding and commitment in Decision Conferencing, they are concepts and corresponding measures which apply to many other management and IT processes (including requirements determination in systems development, business process redesign, and IS/IT planning) and these ideas and results may therefore have wider applicability.

1. 4 Research Design and Method

Following is a brief overview of the methodological approach adopted in this study. A more detailed discussion regarding methodology, including the dominant paradigm underlying this approach, the research design and issues related to data analysis, may be found in Chapter 3: The Research Design and Method.

Given the nature of the research problem (refer 1. 2 Research Questions), the absence of previous research in this particular area (refer Chapter 2: Literature Review) and the need to explore this issue with regard to real organisations with real and relevant issues to address, it became clear that an investigative field study was required.

Given that this was a field study focusing on actual organisations with real strategic issues, this study needed to take place wherever the actual Decision Conferences occurred. This therefore involved a number of locations, including the offices and homes of people who participated in Decision Conferences facilitated by ICL in the UK. The UK was selected as it was a location where Decision Conferencing was being practiced on a commercial basis by ICL and the researcher was able to obtain permission to talk directly with ICL's clients.

Driven by the need to explore in depth the assumptions made in the literature regarding Decision Conferencing and the absence of empirical evidence, this study therefore utilised a modified case study approach, incorporating both qualitative and quantitative data. However given the exploratory nature of the study the research focus was on the in-depth exploration of the qualitative data. Each case was made up of a group of people who had participated in a Decision Conference sometime during the 12-month period preceding the data collection. Data collection was conducted as follows:

Qualitative Data Collection and Analysis

The semi structured in-depth interviews were undertaken with participants drawn from two Decision Conferences from separate local government organisations in the UK. In Case 1, interviews were conducted with 12 of the 13 participants involved in the Decision Conference. The remaining participant had not been involved in the whole Decision Conference and was therefore excluded from the study. In Case 2, interviews were conducted with 12 of the 14 participants involved in the Decision Conference. The other participants were not available for interview.

In terms of analysis, with regard to the qualitative data it was felt that it was important to apply a consistent analytical approach across the case data to facilitate understanding and enable comparisons where possible. Consequently, while acknowledging there were many possible routes to take, a very systematic procedure was developed for this study. While details and the rationale behind the various steps taken are presented in Chapter Three, in summary, interviews were transcribed, then mapped using the cognitive mapping software, Decision Explorer™. Concepts identified during the mapping process were then used as the basis for creating categories in NVivo™. NVivo™ is software designed to facilitate the storing and analysis of qualitative data.

Identification of concepts was followed by detailed analysis of each of the individual maps following a structured process developed specifically for this study (and seen as a strong contribution to the research community in general), prior to building a composite map of the group's Decision Conference experience. Finally, the composite maps were analysed – again utilising the structured process mentioned above - key issues and themes compared with those evident in the individual maps and findings written up.

Quantitative Data Collection and Analysis

Designed as an adjunct to the qualitative research, the quantitative survey instrument was completed by a total of 70 respondents, although missing items in two of these precluded them from the analysis. The respondents were drawn from 7 Decision Conferences across six organisations. The number of individuals in each Decision Conference varied from 6 individuals to over 20. The organisations were all public

sector organizations in the UK. All of the Decision Conferences followed a similar structure and process and all except one involved strategic resource allocation using the EQUITY™ resource allocation software. The exception was a strategic choice situation, which used the HiVIEW™ software.

The analysis of the quantitative data focused on the links between computer modeling and shared understanding, and shared understanding and commitment to action. Analysis of responses to the structured items contained in the survey instrument involved:

- assessing the validity of the measures for commitment used within this study through a comparison with the literature and a check to see how the measures correlated with a simple measure of commitment
- assessing the reliability of both of the measures of commitment (goal commitment and commitment to choice) was accomplished using Cronbach's Alpha measure of reliability
- generating summary statistics including frequencies and descriptive statistics (e.g. summary information about the distribution, variability, and central tendency of a variable).
- an exploration of the data (e.g. through graphical representation)
- examining correlation between computer modeling and shared understanding, and shared understanding and commitment to action to establish if and how variables were related

Each facet of the above research, from the rationale for choice of design and method, including selection of respondents through to the data collection and analytical approaches adopted, is covered within Chapter 3.

1. 5 Definitions

Following is a definition of the key terms employed in this thesis. For a more detailed discussion of the development of many of these terms refer to Chapter 2.

1.5.1 Decision Conference

Decision Conferencing has at its core an interrelationship between decision analysis, group processes and information technology. Whilst the application of Decision

Conferencing varies widely amongst practitioners, there remains a common core unique to this process - the on-the-spot computer modeling of the decision situation.

In drawing together these various elements, the definition of Decision Conferencing adopted in this study is that expressed by Klass and Schmidenberg (1992c):

> Decision Conferencing can thus be defined as a purposeful, problem solving activity which aims to affect the substance of group discussion in ways which bring rationality and consistency into decision making and in ways which promote a shared understanding and a commitment to subsequent action, by group members, on the decisions taken.
>
> (Klass & Schmidenberg 1992c: 6-7)

1.5.2 Computer Modeling

The term Computer Modeling refers specifically to the use of the computer program (e.g. EQUITY™) during the meeting and to the step-by-step modeling process adopted during the workshops. Broadly this would have involved defining the options and the criteria used to evaluate these; rating the options against these, assessing the relative importance of the criteria and conducting an overall evaluation of the options, including sensitivity analysis (e.g. 'what if' scenarios).

1.5.3 Shared Understanding

As will be discussed in the literature review, shared understanding is quite a complex concept with various shades of meaning. However, within this study shared understanding essentially refers to having a sound understanding of both the issues and others' perspectives. Thus, shared understanding does not necessarily imply an agreement or consensus by participants in the Decision Conference. It reflects more the fact that members come to understand other participants' positions with respect to the issue under study.

Discussing the model and testing the different judgments used in its construction is also a crucial stage in the building of a shared understanding between participants, of the costs and benefits for the group as a whole, of adopting alternative courses of action. In so doing, group members also come to understand the position of each of their fellow participants. "Shared understanding" is therefore somewhat different from the idea of "consensus" in that the emphasis is on recognising and

accommodating differing perspectives into a final decision choice (Klass and Schmidenberg 1992: 3).

1.5.4 Commitment to Action

Commitment to Action is defined as the extent to which the participant supports and feels responsible for the direction or action decided upon by the group. It also encompasses the extent to which the participant is willing to act on the decision.

1. 6 Delimitations of Scope

As indicated above, this study utilised a modified case study approach, incorporating both qualitative and quantitative data, however the research focus was on the in-depth exploration of the qualitative data. Each case was made up of a group of people who had participated in a Decision Conference sometime during the 12-month period preceding the data collection period. Issues regarding scope are highlighted here; however again it is important to note that all of these points are addressed in detail in Chapter Three.

Use of the Case Study Approach

While findings from case studies can be valuable, the method has limitations. One of the major criticisms is that of its limitations in terms of representativeness and generalisability. However, as this is the first study of its kind there were few existing benchmarks on which to base a more comprehensive, generalisable quantitative study. The focus of the study was therefore necessarily exploratory.

Sample limited to public sector organisations in the UK

The study is limited to public sector organisations within the United Kingdom. This was a deliberate choice given the paradigm guiding this study and importance of focusing on actual organisations with real issues to address. The study therefore needed to take place in a location where a sufficient number of actual Decision Conferences occurred. The common background of the various groups involved in the study is in fact a strength, in that it ensured some degree of commonality between the groups in terms of factors such as nature of the organisation, decision making style, cultural background and the nature of the issue to be addressed. This enhanced

opportunities for making comparisons between the various group's perceptions of the Decision Conference experience.

Small sample size for the quantitative study

The small sample size was a result of the exploratory nature of the study and the fact that the quantitative study was a secondary focus and conducted in order to add a further layer of meaning. In addition, accessing sufficient numbers of participants in Decision Conferences is difficult due to the often highly confidential nature of the meetings.

The study focused on only one decision making process i.e. Decision Conferencing

As discussed earlier, as this is the first study of its kind there were few existing benchmarks on which to base a more comprehensive, generalisable quantitative study. The focus of the study was necessarily exploratory and to try to examine the issues across decision-making approaches, whilst the particular aspects of Decision Conferencing were not yet clarified, would have added little to knowledge regarding this area.

The primary focus for all except one of the Decision Conferences was resource allocation.

Decision Conferences are run with many different purposes in mind. These include resource allocation decisions, strategic planning, and organisational structure – in fact for almost any complex issue facing an organisation. While this common background means that we remain largely uninformed with regard to whether a different focus for the conference would have significantly altered participant's experiences, this was seen as acceptable as the common decision focus again provided some degree of commonality between the groups. Resource allocation was a major area of consulting activity for the consulting firm in the UK from which participants were drawn and the fact that resource allocation issues are a major area of interest for both practitioners and organisations meant that any findings would be of direct benefit to these groups, as well as potentially contributing to the Decision Conference theory.

1. 7 Outline of this Thesis

This thesis consists of eight chapters each with its own focus in terms of the research questions. This section presents a brief summary of each Chapter.

Chapter Two: Literature Review

Chapter Two is a comprehensive review of the literature and relevant research associated with the central question. This chapter provides a review of the literature most relevant to this study and also acts as a more detailed source for the definitions of key concepts. In setting the stage, the chapter begins by briefly discussing the increasing complexity evident in organizational decision making and the associated growth in group decision making. While a full review of group decision making is outside the scope of this study, some of the more pertinent aspects are included to provide context for the research.

The chapter then goes on to briefly review the Group Support Systems (GSS) that have emerged to support these groups, then focuses on the literature concerning the immediate area of interest, Decision Conferencing. Encompassed here is a definition of Decision Conferencing, an outline of the Decision Conferencing process and an exploration of its underlying theoretical base (i.e. decision analysis, group processes and information technology). Following on from this is a detailed investigation of the key aspects of Decision Conferencing i.e. computer modeling, shared understanding and commitment, all of which are central to this study. Before closing, the chapter reviews the main research approaches in GSS and Decision Conferencing in particular and touches on the related area of Group Model Building (GMB).

The basic argument that emerges is that while Decision Conferencing itself is potentially useful to groups making decisions, the process rests on the unsupported key premise that the computer modeling, which forms an intrinsic part of the process, leads to shared understanding and commitment. The application of Decision Conferencing to important organizational issues continues, yet its fundamental premise is both empirically unsupported and potentially under-theorised.

Chapter Three: Research Method and Design

Chapter Three reviews the central research question and presents the case for the design and methods adopted. Having addressed the conceptual foundations for this study, including an examination of the specific ontological and epistemological perspectives underlying this particular investigation, this chapter then reviews the various research traditions related to Group Support Systems (GSS) in general and Decision Conferencing in particular, placing the research in context.

The rationale behind the choice of cases and individual participants is presented followed by a meticulous description of the data collection and analytical procedures presented. The chapter closes with a discussion of a set of guiding principles suggested for the evaluation of this study, reviews possible limitations to the approach chosen and addresses relevant ethical issues.

Chapter Four: Quantitative Data Analysis

Chapter Four presents an overview of the key findings drawn from the quantitative data in terms of the central questions being addressed in this study i.e. it explores the pivotal Decision Conferencing concepts of commitment and shared understanding and an examination of possible links with computer modeling. It is again emphasised here that the quantitative data was largely seen as an opportunity to inform the main study which focused on the qualitative data analysis.

Chapter Five: Qualitative Data Analysis: Case 1 MBC

Chapter Five presents the findings drawn from the qualitative data for Case 1 MBC and begins by presenting the background to the Decision Conference in question, including the background to the case, a detailed discussion of the analysis and associated findings drawn from the in-depth interviews conducted with participants. This includes the presentation of key concepts and themes that emerge from the data. The chapter then focuses directly on the findings as they relate to the research questions and closes with a summary of the Decision Conferencing experience as described by participants within this study.

Chapter Six: Qualitative Data Analysis: Case 2 DC

Mirroring the approach adopted in Chapter Five, this chapter presents the findings drawn from the qualitative data for Case 2 DC and once again begins by presenting the background to the Decision Conference in question, including a review of the participants, a description of preparatory work, the objectives and subsequent model building and the associated decision outcomes. Following on from this overview of the background to Case 2 DC is a detailed discussion of the analysis and associated findings of the in-depth interviews conducted with participants, again including the identification of key concepts and principal themes to emerge from the data.

The findings directly associated with the research questions are then presented and the chapter closes with a summary of the Case 2 DC Decision Conferencing experience.

Chapter Seven: Discussion and Implications

In addressing the research questions and the implications of the study outcomes, this chapter first turns to a discussion of the conclusions relating to the quantitative data (Chapter Four) and to each of the qualitative cases (Chapters Five and Six). This is followed by a comparison of the case findings and of the qualitative and the quantitative data.

The conceptual ramifications of the conclusions drawn are then discussed, including the presentation of the suggested *Revised Model for Decision Conferencing*. This is followed by a discussion of the implications of the findings for the practice of Decision Conferencing.

Chapter Eight: Conclusion, Limitations and Future Research

Chapter Eight opens with an overview of the thesis. The chapter then examines the limitations of the study, presents an overview of the major contributions made and highlights further possible research directions.

Chapter Eight concludes by returning to the evaluation principles first highlighted in Chapter Three: Research Method and Design, outlining the manner in which these have been adhered to in this study.

1. 8 Conclusion

This chapter laid the foundations for this dissertation. It introduced the research problem and associated research questions. The chapter also provided justification for the study, with an overview of the methodology and research design. Also outlined here is the structure of the report and an indication of limitations associated with this study. On these foundations, the following chapters proceed with a detailed description of the research.

2 CHAPTER TWO: LITERATURE REVIEW

2. 1 Introduction

Chapter Two provides a review of the literature most relevant to this study and also acts as a source for the definitions of key concepts. In setting the stage for this study, the chapter begins by briefly discussing the increasing complexity evident in organisational decision making and the associated growth in group decision making. While a full review of group decision making is outside the scope of this study, some of the more pertinent aspects are included to provide context for the research.

The chapter then briefly reviews the literature regarding the group support systems (GSS) that have emerged to support these groups, then focuses on the literature concerning the immediate area of interest, Decision Conferencing. Encompassed here is a definition of Decision Conferencing, an outline of the Decision Conferencing process and an exploration of its underlying theoretical base i.e. decision analysis, group processes and information technology. Following on from this is a detailed investigation of the key aspects of Decision Conferencing i.e. computer modeling, shared understanding and commitment, all of which are central to this study.

The basic argument that emerges is that while Decision Conferencing itself is potentially useful to groups making decisions, the process rests on the unsupported key premise that the computer modeling, which forms an intrinsic part of the process, leads to shared understanding and commitment. The application of Decision Conferencing to important organizational issues continues, yet its fundamental premise is both empirically unsupported and potentially under-theorised.

2. 2 Group Decision Making

2.2.1 Complexity and the Rise of Group Decision Making

Managers are increasingly faced with making complex decisions in turbulent organisational environments (Slevin 1998: 179). In an extensive review of the strategic decision making (SDM) literature, Christensen & Fjermestad (1997: 373) noted that increasing environmental uncertainty has led to greater information processing demands, exacerbated by the velocity of the perceived change. The need for more comprehensive information has also lengthened the time needed to take

decisions. In addition, power distributions in existing organisational roles have resulted in increased political activity within organisations and an associated rise in role and interpersonal conflict (Christensen & Fjermestad 1997).

Associated with these factors is a move towards more team based organisations (Finnegan & O'Mahony 1996: 211). Increasingly organisations try to deal with this turbulence in such a way that many of these multifaceted decisions are now made in a group environment, where the decision is made jointly by a committee or group structure (Van den Honert 2001; Slevin et al. 1998: 179). These decision-making groups are seen as a key contributor to organizational effectiveness (Guzzo & Dickson 1996).

However, groups possess both beneficial and dysfunctional characteristics, a point that is directly relevant to this study. Following is an overview of the key aspects in terms of the benefits and pitfalls associated with group decision making.

2.2.2 Benefits of Group Decision Making

Group decision making is said to confer a number of benefits on the decision-making process. These include:

- *shared understanding of the issues* - one of the key benefits here is to enable senior managers to interact in sharing and evaluating information in making strategic recommendations (Daft, Bettenhausen & Tyler 1993). Where individual managers lack requisite knowledge, a group of relevant individuals may be convened to inform the decision-making process (Slevin et al. 1998: 180).

  In groups, more information tends to be pooled, thus increasing the likelihood that the group will review the most pertinent alternatives. Murphy (1989: 101) noted the importance of this in the context of strategic decision making by stating:

  > If current research on organizations is correct, firms that can successfully introduce pertinent information about their changing environments into strategic decision-making processes have the brightest prospects of long-term survival.

  Complementing this, Janis & Mann (1977) stated that the exchange of ideas in a group whilst weighing alternatives, leads to the development of new viewpoints

amongst participants. They thus gain a better understanding of the potential consequences of their decision.

- *enhanced commitment* - it has been claimed that the public nature of decision making within groups and the influence of group norms enhances the degree of commitment to a new course of action (Janis & Mann 1977).

  Participation in group discussion was also found to enhance commitment to carry out the group decision (Pennington, Haravey & Bass, 1958 in Janis & Mann 1977: 180). Vroom (1964) also found that adherence to the decision is also facilitated when the decision has to be implemented by a group, but this was predicated on each member's participation in the evaluation process.

  Commitment to a reference group makes judgments formed in that group more resistant to change (Jones & Gerard 1967; Kiesler 1971 in Janis & Mann (1977: 180). The social support provided by the group enables participants to adhere to the decision, despite negative feedback.

- *increased confidence* – group decision making generally results in higher confidence in the decision compared to individual decision making (Slevin et al. 1998).

- *better decisions* - a study of Expert Support Systems (ESS) by Hoon, Mao & Benbasat (1999: 137) also compared individual and group decision making and found that groups outperform individuals both with and without ESS support settings – especially with regard to novice decision makers. However, in general the research on whether group decision making does in fact increase decision quality is variable (Slevin et al. 1998).

All of the above are seen to form part of the rationale for the increased use of groups in organisational decision making.

2.2.3 Problems in Group Decision Making

Group work, however, is also characterised by some dysfunctional behaviours, which lead to process losses and are also believed to affect decision quality (Van den Honert 2001). These include:

- *groupthink/ conformance* - generally characterized by uncritical acceptance or conformity to prevailing points of view (Janis & Mann 1977); a false consensus may also emerge as a result of pressure to comply with expected standards or norms (Jones & Roelofsma 2000; Janis & Mann 1977; Mejias, Vogel & Shepherd 1997; Straus 1996; Granstrom & Stiwne 1998).
- *disorganisation* - lack of an organised process; groups often fail to use key information that is held by members, often as a result of inefficient, unstructured processes (Stasser 1992; Stasser & Titus 1985; Slevin et al. 1998; van de Ven & Delbecq 1974; Vogel & Nunamaker 1990).
- *member dominance* - members dominate discussions, exercise undue influence or monopolize time in an unproductive manner (Maier 1967; Mejias, Vogel & Shepherd 1997; Vogel & Nunamaker 1990; George et al. 1990).
- *production blocking* - only one person can contribute at a time; thus preventing the introduction of new ideas (Straus 1996)
- *social loafing* - shy and/or lazy members make little effort to participate. This may be due to cognitive loafing, the problems of competing for 'air time' or the belief that input is not required (Hoon, Mao & Benbasat 1999: 139)
- *evaluation apprehension/social inhibition* - unwillingness of members to contribute for fear of being criticised (Straus 1996; Shaw 1981; Vogel & Nunamaker 1990; Hoon, Mao & Benbasat 1999; George et al. 1990).
- *deindividuation* – essentially this is a loss of self-awareness; when a person finds him/herself submerged in a group and feels anonymous (Diener, 1977 in Peterson 1997). More particularly, the individual loses his/her own sense of identity. Two of the characteristics of deindividuised behaviour are weakened restraints against impulsive behavior and a lowered ability to engage in rational planning or critical thinking (Peterson 1997).
- *diffusion of responsibility* – this can be a problem where the individual group members are often not equally qualified to contribute equitably to the decision process, or may have different saliencies (desires) to influence the decision (Van den Honert 2001: 275).

- *group escalation of commitment* – commitment to a failing course of action. Bobocel & Meyer (1994) and Whyte (1993) found that group decision making amplified trends apparent at the individual level in terms of the frequency with which escalation occurred and its severity.
- *group polarization* – previously this was known as risky shift where earlier research found that groups tended to make riskier decisions than individuals. Later research has found that the risk shifts both ways in group decision making i.e. reactions of groups tend to be more extreme than that of individuals. Evidence suggests that the effect is caused by two processes: (1) the desire to evaluate one's own opinions by comparing them to others' (social-comparison theory) and (2) exposure to other members' pro-risk or pro-caution arguments (persuasive-arguments theory) (Spears, Lea & Lee 1990).

The preceding points indicate that the desire to be accepted and to be a good group member tends to silence disagreements, favour consensus and produce unreasonable social pressure for conformity (Hoon, Mao & Benbasat 1999: 139). As a number of authors note (e.g. Slevin et al. 1998; Van den Honert 2001; Hoon, Mao & Benbasat 1999), inferior decision quality may result.

All of this reinforces Finnegan and O'Mahonys' (1996) point regarding the complexity of working with groups. In their 1996 study of group problem solving and decision making, Finnegan and O'Mahony (1996) found that although group decision making is a widespread phenomenon, it is far more complicated than individual decision making. Groups were found to need a great deal of control and coordination to enable members to collaborate effectively (Finnegan & O'Mahony, 1996: 211).

As a consequence, the increase in group decision making has generated a corresponding intensification in the interest in options available to support such decision making (Finnegan & O'Mahony 1996: 211; Christensen & Fjermestad 1997: 351). This will be discussed further in the next section.

For a more extensive review of research regarding groups in organisations the reader is encouraged to refer to Guzzo & Dickson (1996). It is also worth noting that while the term "team" has largely replaced "group" in the argot of organisational

psychology (Guzzo & Dickson 1996), the word "group" predominates in the research literature and is the term used within this study.

2.2.4 Summary

Groups are now an integral part of organisational decision making and as such have a significant part to play. However, along with this and the number of benefits of making decisions in groups, there are a number of dysfunctional group behaviours that threaten the quality of decisions and thus organisational effectiveness. As a consequence, a need for tools and processes to support the group decision making process has arisen. The next section explores those processes relevant to this study.

2. 3 Technological Support for Group Decision Making

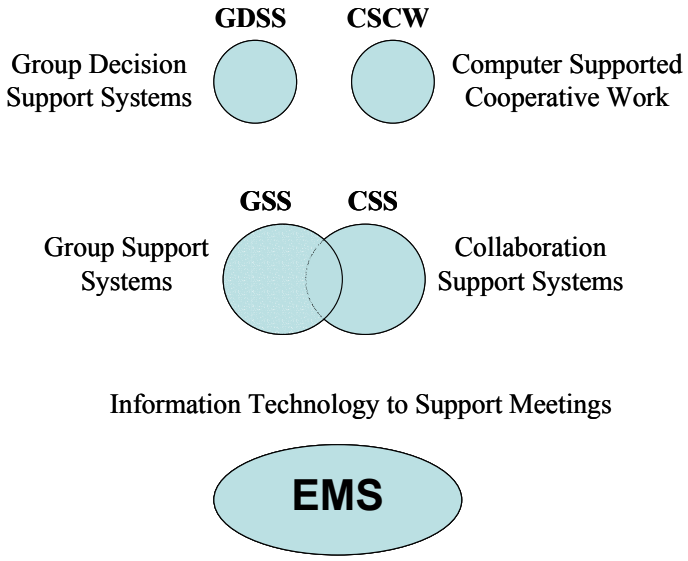
The increase in decision complexity has seen a commensurate growth in use of groups in organisational decision making. In turn, this has generated the development of a wide range of systems and processes intended to support the efforts of groups meeting to exchange information, generate ideas and make decisions. Whilst this whole area of group support is extremely broad and interdisciplinary, the general area of direct concern in this study is that known as Group Support Systems (GSS). More specifically this study focuses on a specific type of GSS known as Decision Conferencing, however before addressing this particular process in detail, this section provides a brief overview of the wider GSS field in order to provide context.

Originally entitled Group Decision Support Systems (GDSS), the D has since been dropped from GDSS, to create this more encompassing term. This change reflects the belief that such systems also support tasks other than decision making (Valacich & Dennis 1993). GSS thus covers a broad range of systems such as EMS (Electronic Meeting System), DGSS (Distributed Group Support Systems), CMCS (Computer Mediated Communication Support), GNSS (Group Negotiation Support Systems), GCSS (Group Communication Support System), CAC (Computer Assisted Communication) and GIS (Group Information System) (De Vreede 1996: 123).

In their article discussing the growth and interest in the use of IT to support meetings, Dennis, Geroge, et al (1988) present an argument for the term EMS (Electronic Meeting Systems) to present an even higher order classification than

GSS. The authors argue that systems which utilise IT to support group meetings can generally be classified into two broad classes i.e. group decision support systems (DSS) and computer based systems for cooperative work (CSCW). Historically, from this has flowed the more encompassing terms of GSS and CSS, however given that the distinction between these two classes has become increasingly blurred Dennis, George et al. (1988: 592) propose that the revised term EMS be adopted to encompass the broader view of technological support for decision making. This progression and the relationship between these various systems is presented in Figure 2.1 below.

Figure 2-1 The Progression to EMS



Dennis, George et al. (1988: 592)

There exist four theoretical mechanisms whereby EMS is said to affect the various gains and losses experienced by groups using technological support ie process support, process structure, task structure and task support. The reader is referred to Nunamaker, Dennis et al (1991: 45) for a detailed discussion of each of these.

However as this study's central concern is primarily with *decision making*, discussions and definitions related to GDSS are more particularly relevant here and thus is the focus of the following overview. As noted in Chapter One, one of the earliest definitions of GDSS is that presented by DeSanctis & Gallupe (1987: 589), where GDSS were described as systems which…

> …combine communication, computer, and decision support technologies to support problem formulation and support in group meetings.

Howeer, the definition used in this study is the comparable, but more recent describtion presented by Zuurbier (1992: 60), where a GDSS is defined as:

> ..an interactive computer-based system which facilitates solution of ill-structured problems by a set of decision makers working together as a team.

The aim here is that the GDSS should improve the decision-making process and/or the outcomes of groups. As DeSanctis & Gallupe (1987: 589) note:

> A GDSS aims to improve the process of group decision making by removing common communication barriers, providing techniques for structuring decision analysis, and systematically directing the pattern, timing or content of discussion.

Following on from this, Phillips (1988a: 210) offered an expanded definition of GDSS, as follows:

> The use of information technology to help groups of people consider uncertainty, form preferences, make judgments and take decisions within prescribed limits.

DeSanctis & Gallupe (1987) presented a conceptual framework for classifying GDSS. Level 1 GDSS improve the decision process by facilitating information exchange among members, Level 2 GDSS provide decision modeling and group decision techniques aimed at reducing uncertainty and "noise" that occur in the group's decision process and Level 3 GDSS are characterised by machine-induced group communication patterns and can include expert advice. Decision Conferencing, the GDSS which forms the basis of this study, falls within Level 2 of this classification.

A more recent model of group system classification proposed by Watson (1992) provides some further insight. In this arrangement groupware is classified by considering the effect on group output:

> First level groupware primarily supports information exchange and the main output is shared opinions... Second level groupware converts exchanged opinions into shared understanding and shared priorities... The third and highest level output is a shared mental model. Third level groupware assists a group to develop a shared map by teasing

> out relationships between items to develop a group causal map. The collective mind has a network of relationships.
>
> (Watson 1992: 4 -5)

At the third level, models are used to explore data relationships. Whilst the above classification explicitly refers to *groupware* the description applies equally well to the processes that accompany the various groupware products. Following this schema, Decision Conferencing would be classified at the third level of Watson's classification scheme.

It is Decision Conferencing's emphasis on decisions, commitment to future action and its relation to strategic issues which Eden (1995) sees as the most fundamental difference to other GDSS such as that developed by Nunamaker, Applegate & Konsunski (1988), which tend to focus more on increased productivity of group meetings where added value is seen to come more from data management capabilities. The next section further explores the unique features of Decision Conferencing.

2. 4 Decision Conferencing – The GDSS in this Study

2.4.1 A Caveat Regarding the Published Research

Having addressed the general field of GDSS it is time to address the group support system at the heart of this study – Decision Conferencing. However, prior to focusing on the published literature in this field it is important to note that there are essentially two groups within the Decision Conferencing community – academics and practitioners. Although these boundaries are sometimes blurred, this is significant, as while academics do publish material on Decision Conferencing there has been very little in evidence since the late 1980's and early 1990s. Some exceptions which will be discussed within this review include Quaddus & Siddique (2001); de Reuck, Schmidenberg & Klass (2000b); de Reuck, Schmidenberg & Klass (2000a); de Reuck, Schmidenberg & Klass (1999) and Schuman & Rohrbaugh (1998) who have focused primarily on theory development and a descriptive overview of the process based on experience rather than empirical evidence.

This paucity of material might suggest that the field has stagnated, however anecdotal evidence suggests otherwise. Practitioners such as ICL and Catalyze in the United Kingdom, the Decision Techtronics Group in the US, those associated with

Curtin University of Technology's Graduate School of Business in Australia and others who make up the Decision Conference Forum[1] membership have advanced and changed the field significantly. However, it is difficult to ascertain exactly in what ways this has been done, as generally these practitioners do not publish in the academic press. The Decision Conference Forum membership is by invitation only, further limiting access to current thinking and practice. Thus this is largely an unclaimed field in the mainstream academic writing.

The result is that much of the reference material available is possibly no longer relevant or fully representative of current practices or beliefs regarding the Decision Conference process. Bearing in mind these limitations, as complete a picture as possible is presented in this chapter.

2.4.2 Defining Decision Conferencing

Decision Conferencing has its roots in the 1970s with Cam Peterson from Decision and Designs Inc. who drew on the field of decision theory, with originators such as Bell, Keeney and Raiffa (Atkinson & Marshall 1990: 20). Peterson designed the approach in the late 1970s. The London School of Economic's (LSE) version was introduced in 1981 with further developments in collaboration with ICL from 1984. Decision Conferencing is also practiced at the State University of New York (SUNY), by ICL in the UK and Decision Techtronics Group in the US. In Australia, it began at Curtin University with an initial contact with Phillips at the LSE in 1988 and a visit by Phillips in mid 1989 for a three-week training session in theory and facilitation (Atkinson & Marshall 1990: 20).

Decision Conferencing is a form of GDSS that utilizes computer modeling to support group decision making. Unlike DeSanctis & Gallupe (1987) Level 3 GDSS, Decision Conferences are not restricted by electronic networking (Schuman & Rohrbaugh 1991a: 148). A Decision Conference generally consists of a two to three day meeting, which brings together a group of people who have a stake in an issue or problem facing their organisation or have responsibility for making a decision. This face-to-face meeting is run with the support of one or more facilitators and includes on the spot computer modeling of the issue(s) to provide structure to the decision

[1] The Decision Conference Forum is made up Decision Conference practitioners throughout the world. The

process. This approach is reflected in the majority of the Decision Conferencing literature (e.g. Atkinson 1990; Dobson 1991; Galliers et al. 1991; Klass & Schmidenberg 1992c; McCartt & Rohrbaugh 1989; McCartt & Rohrbaugh 1990; Morgan 1992; Phillips 1988b; Phillips 1988a; Phillips 1989e; Phillips 1989d; Phillips 1990b; Quaddus & Tung 2002; Schuman & Rohrbaugh 1991a; Thierauf 1989; Vari & Vecsenyi 1992).

The aim of a Decision Conference is to achieve a shared understanding of the issues facing the group, develop a sense of common purpose and a mutual commitment to action. Again the widespread acceptance that these are the aims of the process may be found in the majority of the extant Decision Conferencing literature (e.g. Dobson 1991; Galliers et al. 1991; Klass & Schmidenberg 1992c; Morgan 1992; Phillips 1988b; Phillips 1988a; Phillips 1989e; Phillips 1989c; Phillips 1990b; Phillips & Phillips 1993; Quaddus, Atkinson & Levy 1992; Schuman & Rohrbaugh 1991a; Thierauf 1989; Phillips 2000b; Phillips 2000a).

Whilst the Decision Conference may involve pre-conference meetings and additional information gathering sessions (Schuman & Rohrbaugh 1991a; Milton-Smith, Schmidenberg & Klass 1999; de Reuck, Schmidenberg & Klass 1999), during the actual Decision Conference the various participants sit around a table, interacting with each other and the facilitator in much the same way as in a traditional meeting (refer Figure 2-2).

Figure 2-2 Decision Conference

(Catalyze Ltd 2003b)

---

group meets annually and membership is by invitation only.

However, there are some major differences from traditional meetings in terms of the tools and techniques used to support the group. The key differentiating feature is the creation of an on-the-spot computer model representing participants' view of this issue, incorporating both objective data and participants' own perspectives, judgments and preferences (Phillips 1988b; Phillips 1989e; Phillips 1988a; Morgan 1992; Thierauf 1989; Galliers et al. 1991; Klass & Schmidenberg 1992c; Quaddus & Tung 2002).

The modeling is accomplished utilising specially designed decision analysis software such as HiVIEW™ and VISA (multi-criteria modeling tools which may be used to evaluate alternatives), ALLOCATE and EQUITY™ (for allocation of resources) (Eden 1990; Klass & Schmidenberg 1992c; Quaddus, Atkinson & Levy 1992). The software enables calculations of the outcome of the subjective evaluations made by the group and also provides for an evaluation of the sensitivity of outcome to small changes in any of the ratings (Eden 1990: 193). The facilitator selects the computer modeling software on the basis of the nature of the issue to be addressed.

Decision Conferencing has been described as the most widely applied type of Level 2 GDSS (Schuman & Rohrbaugh 1998: 19). The Decision Conferencing process has been applied to areas as diverse as organisational planning, resolving conflict among expert negotiating multi-party agreements, developing government policies and addressing resource allocation issues (Schuman & Rohrbaugh 1998). The widest application appears to be in the areas of organisational planning (Schuman & Rohrbaugh 1998) and increasingly, resource allocation.

Reflecting much of the work drawn on in the above overview, Schuman & Rohrbaugh (1991a: 148-149) describe a Decision Conference as follows:

> Decision Conferences are designed for groups that need to reach consensus about a complex unstructured problem…The Decision Conference provides an arena for bringing together people of diverse perspectives and for helping them develop a shared understanding of the problem and reach a consensus decision.
>
> The Decision Conference is computer-assisted, using structure and preference technologies that improve analysis, combined with group facilitation techniques that improve interpersonal communication and integrate support technologies in the group process. This approach systematically incorporates the role of human judgment in the decision-making process and enables groups to use information more consistently and coherently.

In summary, a Decision Conference may therefore be defined as:

> …a purposeful, problem solving activity which aims to affect the substance of group discussion in ways which bring rationality and consistency into decision making and in ways which promote a shared understanding and a commitment to subsequent action, by group members, on the decisions taken.
>
> (Klass and Schmidenberg 1992: 6-7)

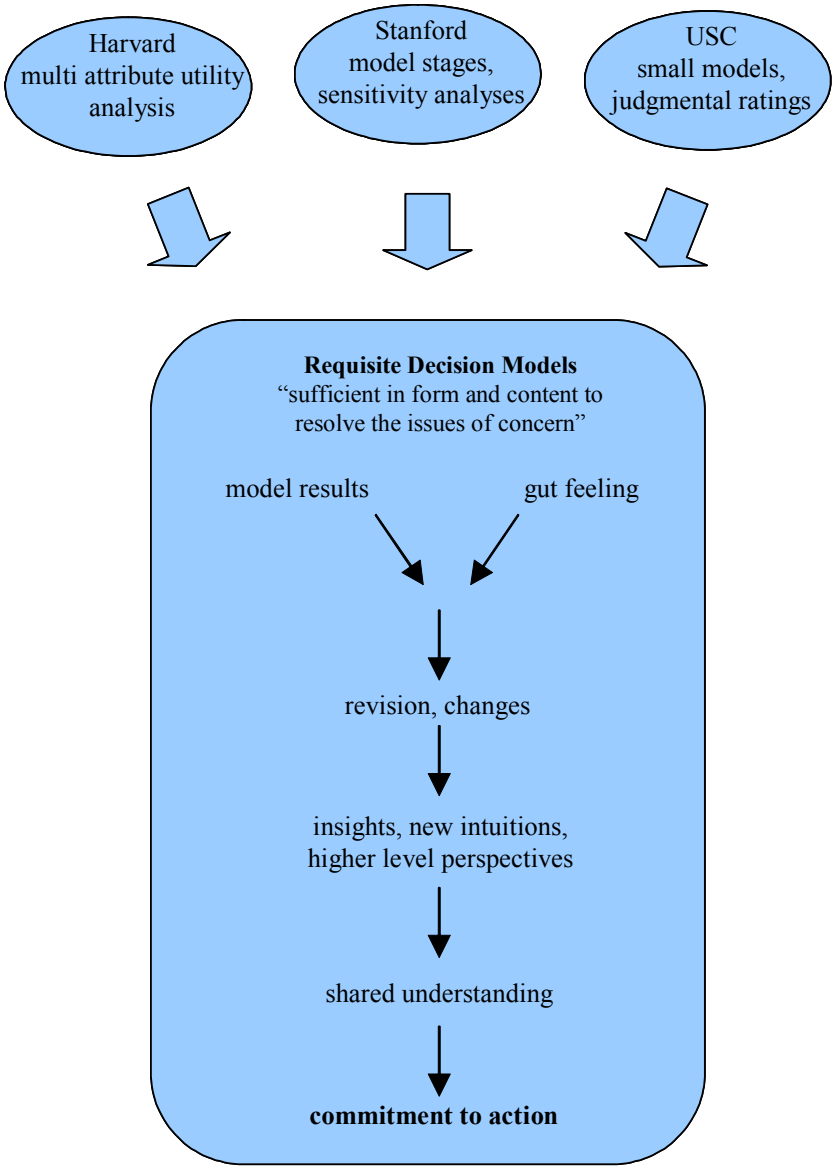
In addition to achieving the goals of a shared understanding and commitment to action, other perceived benefits of participating in a Decision Conference include better communication across 'silos'; development of an 'idea-generating' culture; improved team-working; better appreciation of uncertainty and smarter, defensible decisions (Phillips 2000a: Slide #24).

Thierauf (1989: 199) stated that another key advantage of Decision Conferencing was to enable participants to arrive at higher quality and more acceptable solutions than would be possible using other procedures. However, there is no accompanying empirical evidence to support these claims.

The focus in Decision Conferencing is on problem solving (Klass & Schmidenberg 1992c; Phillips 1988b), so the information technology is made as unobtrusive, yet easy to use, as possible. The facilitator can use a remote control to display the computer output (e.g. the model as illustrated in Figure 2.2) or any other relevant information such as video footage or printed materials through use of a projector (not shown in Figure 2.2).

Initially, Decision Conferences were run along closely prescribed lines (e.g. see Phillips, 1988). This overall process, including the generation of a shared understanding and commitment to action, was presented in an early paper describing the Decision Conference process (Phillips 1989a). In this 1989 paper, outlining the application of Decision Analysis in benefit/risk management, Phillips 1989a presented the outline illustrated in Figure 2.3 regarding the role computer modeling plays in developing commitment to action.

Figure 2-3 Decision Conferencing Process Version 1



(Phillips 1989a: 8)

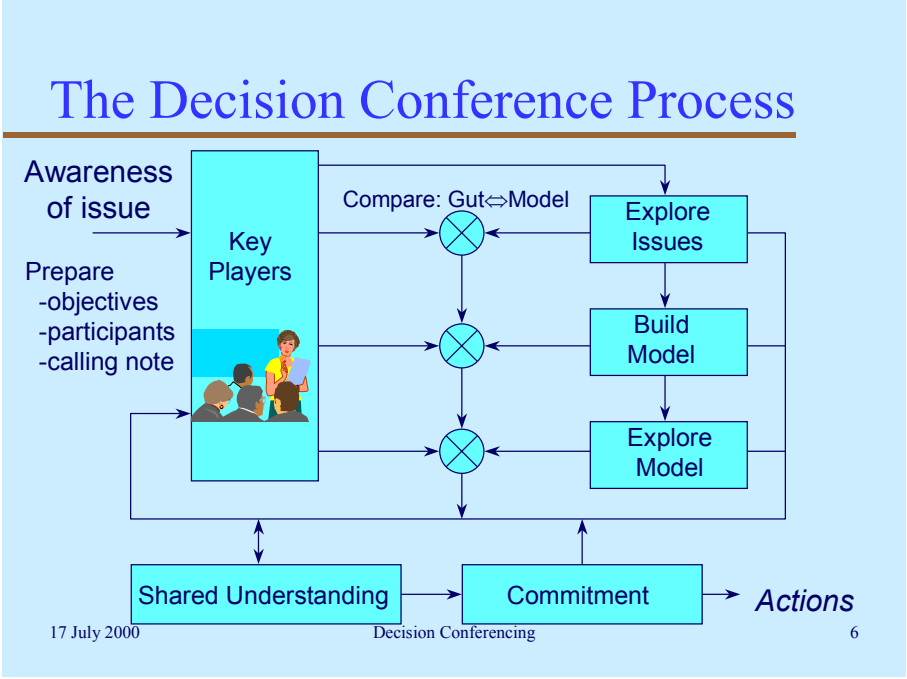
Here Phillips (1989a: 8) argues that the Decision Analysis approach used in Decision Conferencing can provide better outcomes, shared understanding, commitment to action, an audit trail for decisions and justifiable decisions i.e. all the claimed hallmarks of a contemporary Decision Conference (e.g. Phillips 2000a; Quaddus & Tung 2002; Quaddus & Siddique 2001; Phillips 2000b).

Whilst this paper largely focused on Decision Analysis in particular, subsequent Decision Conferencing literature used this as a basis for a more general view of this

chain of events, claiming that commitment as indicated here was as a result not only of requisite decision modeling but of the overall Decision Conferencing process. It is important to note that this original model and subsequent papers drawing on this were not produced on the basis of any empirical research. It is this paper and two earlier publications (Phillips 1988a; Phillips 1988b) that appear to have generally informed the basis for the claim that the use of computer modeling in Decision Conferencing results in the achievement of a shared understanding amongst participants and subsequent commitment to action. Many of these papers reiterate the same material with some small changes in wording or provision of different examples.

A slightly modified version of this model was presented by Phillips at the Euro XVII conference in 2000. In this instance the model had been only slightly modified to draw in participant's awareness of the issues and some consideration of preparation (Phillips 2000a). Figure 2.4 presents this slightly revised process description.

Figure 2-4 Decision Conferencing Process Version 2



(Phillips 2000a: Slide 6)

While the layout is slightly different, the basic principles here and in the description on the remaining slides remain the same. Again in this model, both shared understanding and commitment are represented as generic goals of the Decision

Conference process (Phillips 2000a). However it is important to bear in mind that this model had not been presented at the time the data was collected in this study.

More recently the available literature and anecdotal evidence from people working and researching in this area suggests that the process is now a much more divergent one (e.g. Phillips 2000a; de Reuck, Schmidenberg & Klass 1999) than that presented in the previous figures. Factors such as the facilitation style, the use of alternative technologies to support the process, the degree of content introduced by the facilitator(s), the duration of the Decision Conference and the extent of follow up all vary considerably.

With regard to duration, until recently the literature presented a fairly uniform view that a Decision Conference typically involved a two day workshop that included key people with a stake in solving a pressing organisational problem or with responsibility for making a decision. This uniformity of views is evident in Eden (1990); McCartt & Rohrbaugh (1990: 2); Phillips (1988a: 95); Phillips (1989e: 213); Phillips (1990b: 147); Schuman & Rohrbaugh (1991a: 150); Quaddus & Tung (2002; : 94) Klass & Schmidenberg (1992c: 1) and Phillips (1988b: 95).

However more recent work by de Reuck, Schmidenberg & Klass (1999); Phillips (2000a); Phillips (2000b) and anecdotal evidence suggests that Decision Conference practitioners such as Catalyze Ltd and ICL in the UK, the Decision Techtronics Group in the US and Curtin University of Technology in Australia have continually modified their practice of Decision Conferencing.

It appears there is more pre-meeting support and post Decision Conference follow-up as well as some variation to the ‘two day’ standard, with a growing emphasis on a sustained engagement with clients (Phillips 2000a; Phillips 2000b). However as many of these practitioners rarely publish in academic journals, it is difficult to determine exactly what is currently being applied. One indicator that the process is not as rigid as outlined in the earlier literature is evident in Klass & Schmidenberg (1992c) where the authors argue for an expanded role for Decision Conference practitioners with increased flexibility in terms of both time i.e. it need not be a "2-day process", and techniques utilised i.e. the process could possibly include any other facilitation techniques or GSS tools such as MeetingWorks and GroupSystems, if that was what was required in order to meet client needs.

According to the literature, generally the Decision Conference is aided by a minimum of two people, experienced in working with groups (Atkinson 1990; Phillips 2000b; Phillips 1988b). According to Phillips (1988a: 213), the role of the facilitator is to assist participants to:

> …structure their discussion, think creatively and imaginatively about the problem, identify the issues, model the problem and interpret the results. The analyst helps the facilitator and attends to the computer modeling.

This clear distinction between the role of the facilitator and the analyst was a feature of earlier Decision Conferences; however this is no longer a universal practice. The analyst is often a co-facilitator and at times three person teams have supported various Decision Conferences (observed by the researcher).

There has also been an ongoing debate within the literature, but more predominantly in the Decision Conference Forum and reported anecdotally, regarding the actual role of the facilitator, with a clear dichotomy between those who support a purely process driven approach and those who argue for inclusion of content expertise.

An example of these divergent views regarding the practice of Decision Conferencing can be seen in the application of Decision Conferencing at Curtin University of Technology. Here there have been variations in terms of duration, number and role of facilitators, uses of additional supporting GSS prior to the Decision Conference and in the degree of content support provided to decision-making groups during the Decision Conference. For example, varied aspects of group functioning and ideas drawn from the strategy formulation and implementation literature have been integrated for use in conferences where strategic issues are addressed (Klass & Schmidenberg 1992a; Klass & Schmidenberg 1992b). Another example is the perceived difference in the role of the facilitator, where Klass & Schmidenberg (1992c) argue that Decision Conference facilitators and analysts need to know something about the general area of strategic planning/management in order to successfully facilitate a Decision Conference dealing with strategic issues. In other words, the pure "process support" philosophy that places great reliance on the modeling function, as espoused by the traditional approach to Decision Conferencing is not enough. More recently, this group has also been questioning the underlying theoretical base driving the Decision Conference process and has been adjusting their practice accordingly (de Reuck, Schmidenberg & Klass 1999; de Reuck, Schmidenberg & Klass 2000b; de Reuck, Schmidenberg & Klass

2000a; de Reuck, Schmidenberg & Klass 2003). This will be discussed in further detail shortly.

Despite these differences, there still exist a number of key common features, the most significant of which is the computer modeling of the decision situation (Phillips 1989d; Thierauf 1989; Klass & Schmidenberg 1992a; Schuman & Rohrbaugh 1991b). This on-the-spot computer modeling is seen as a unique feature of Decision Conferencing and as Galliers et al. (1991: 159) argues, is the main aspect in which Decision Conferences differ from more traditional meeting approaches. This view that the on-the-spot modeling is the unique feature of a Decision Conference is supported by virtually all of the published Decision Conference literature and is encapsulated in the following quote:

> A distinguishing feature of Decision Conferencing is the on-the-spot development of a computer based decision model that incorporates the differing perspectives of participants.
>
> (McCartt & Rohrbaugh 1990: 2)

The computer modeling is seen as the primary tool in achieving the underlying objectives of a Decision Conference i.e. a shared understanding and subsequent commitment to action amongst participants. Again the literature demonstrates very little divergence from this view (e.g. Dobson 1991; Galliers et al. 1991; Klass & Schmidenberg 1992c; Morgan 1992; Phillips 1988b; Phillips 1988a; Phillips 1989e; Phillips 1989c; Phillips 1990b; Phillips & Phillips 1993; Quaddus, Atkinson & Levy 1992; Schuman & Rohrbaugh 1991a; Thierauf 1989; Phillips 2000a; Phillips 2000b). This will be discussed further in Section 2. 6.

2.4.3 Steps in the Decision Conference Process

Schuman & Rohrbaugh (1991a: 149) maintain that a Decision Conference may be considered as having three phases. They illustrate this with reference to a Decision Conference, which was designed to identify the strategic issues facing the participants and to determine the associated organisational information needs (Schuman & Rohrbaugh 1991a: 140). The generic phases are presented as follows:

Phase 1 Understand the decision situation and develop a strategy for approaching this situation.

- Develop a common perception of the problem and a useful focus - may need to reframe the problem
- Determine who should attend the conference
- Select a decision model (in this paper, a resource allocation model)
- Develop a process agenda

Phase 2 Conduct the Decision Conference

- Facilitator engages participants to make explicit their knowledge of the situation
- Simultaneously another staff member tracks the discussion on the computer
- As the facilitator elicits more precise assessments, the analyst captures their estimates using the selected structure of preference technology
- Group develops an initial action plan for implementing their decisions

Phase 3 Follow through for successful implementation

While mirroring the overall structure, Phillips (Phillips 2000a; Phillips 2000b) provides a more succinct overview of the process and reflects the dominant approach evident in the literature i.e.:

- Establish the context
- Explore the issues
- Create the structure of a model that will aid thinking
- Input data and judgments
- Explore the model, do sensitivity analyses
- Develop shared understanding and commitment

In some ways both of these process descriptions reflect Mintzberg, Theoret & Rainsinghanis' (1976) analysis of twenty-five decision-making processes that identified three basic stages in the decision-making process:

1. Identification - the need to make a decision has to be identified
2. Development - searching for alternatives
3. Selection - which involves screening, evaluative choice and authorisation

These stages are also analogous to the five stages described in arriving at what has been termed a *stable decision* (Janis & Mann 1977), where people will continue to implement until they encounter a challenge strong enough to engender dissatisfaction with the current direction i.e.

1. Appraising the challenge
2. Surveying alternatives
3. Weighing alternatives
4. Deliberating about commitment
5. Adhering despite negative feedback

It may be argued that Decision Conference effectively seeks to support the group through these stages. This will be explored further in Section 2. 6.

2. 5 Decision Conferencing – The Underlying Theoretical Base

The Decision Conferencing process draws primarily on three fields for its underlying theoretical base i.e.

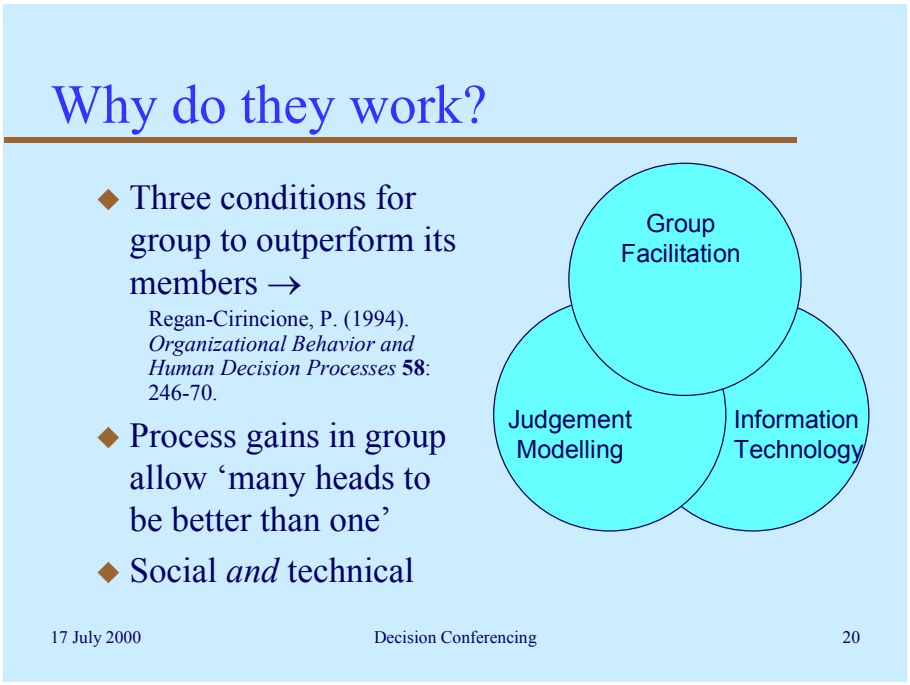
1. Decision Theory
2. Information technology
3. Small Group Process

Atkinson & Marshall (1990) state that Decision Conferencing's main strength lies in its use of well-developed theory i.e. decision theory and theory associated with small group process. This view is shared by Adelman (1984) who believes that combining these elements enables groups to produce better quality decisions:

> Groups using multi attribute utility assessment procedures in conjunction with group facilitation procedures tended to make more accurate decisions than groups using only facilitation procedures.

With some modification in wording, the three fields which form the underlying theoretical base are also evident in Phillips' (2000a) more recent work and are illustrated in Figure 2.5.

Figure 2-5 Theoretical base for Decision Conferencing



(Phillips 2000a: Slide 20)

Recently de Reuck, Schmidenberg & Klass (1999); de Reuck, Schmidenberg & Klass (2000b); de Reuck, Schmidenberg & Klass (2000a); de Reuck, Schmidenberg & Klass (2002) and de Reuck, Schmidenberg & Klass (2003) have questioned some elements of the assertion that Decision Conferencing rests on a strongly theorised base, claiming that aspects of the Decision Conferencing process are in fact under-theorised. Their specific concerns will be addressed where relevant within this section as the Decision Conference literature concerning the theoretical basis for the process is reviewed in detail.

2.5.1 Information Technology

In effect, developments in Information Technology (IT) have acted as an enabler for the development of Decision Conferencing. Advances in IT have meant that Decision Analysis can be conducted in real time (Phillips 1983; Phillips 1988a; Phillips 1989e; Morgan 1992). In talking about the role of IT, Phillips (1989d) states:

> …information technology permits instant playback of model results… The computer is subservient to the process. Participants can try out

> ideas, without commitment, then develop and refine their view (insight). Result - shared understanding of the issues.
>
> (Phillips 1989e: 151)

For the moment leaving aside the claim made regarding the link between computer modeling and shared understanding, the relevant point here is that advances in Information Technology have made the practice of Decision Conferencing possible.

2.5.2 Rational Choice and Decision Theory

Decision Analysis, the applied technology that developed from Decision Theory (e.g. French 1989), guides the problem solving process within Decision Conferencing. Decision Theory itself largely falls within the framework of Rational Choice Theory (RCT), which claims that when faced with options, people normally select those that they believe will best advance their interests (de Reuck, Schmidenberg & Klass 2002).

In order to accommodate the diverse but related literature pertaining to the application of Decision Theory in Decision Conferencing, this section has been broken down into the following sub sections:

- A discussion of some of the key notions of rationality
- A brief review of Decision Analysis and the ways in which it accommodates notions of instrumental rationality
- The application of Decision Analysis as a support process, highlighting its role as a tool to support thinking and decision making, rather than as a means of obtaining 'the decision'
- The application of Decision Analysis to Decision Conferencing.

2.5.2.1 Rationality

In essence, the theory of rational choice argues that when faced with several options, people will usually choose what they believe will result in the best overall outcome. As Klass (1999: 21) notes, an action is rational when it is most likely to satisfy one or more of an individual's personal objectives and presumes that an individual with several objectives is capable of comparing the satisfaction of these objectives so as to come up with an overall assessment based on a 'utility' measure. Hargreaves Heap

et al (1992) refer to this classical model of rationality as 'instrumental rationality'. This view originates from classical economics, which itself has its antecedents in the traditional principles of the 'scientific method' (Sarantakos 1993; Wallace 1998).

In the context of the classical view of rationality, rational results must be:

- *Universal: A*ll rational thinkers must arrive at the same solution to their problem - they all begin with the same information, and in such cases logical reasoning can only lead to one conclusion (Brown 1998: 5).
- *A Result of Necessity*: it is not enough that all rational thinkers arrive at the same conclusion, a rationally acceptable conclusion must *follow with necessity* from the information given (Brown 1998: 14).
- *Determined by Rules:* the rationality of any conclusion is determined by whether it conforms to the appropriate rules (Brown 1998: 17).

As Klass (1999: 21) notes, there exist several assumptions inherent within this discussion of the classical model of rationality. These include the following:

1. the idea that rationality is defined from an individual perspective, where the decision maker is primarily concerned with satisfying his/her personal ends
2. that choice options and outcomes are clearly defined
3. that the decision makers understand the rules and have the intellectual capacity to maximise the outcome
4. that the desires are rational.

(Klass 1999: 21-22)

These assumptions with regard to rationality are supported by Goodwin & Wright (1998) who state that..

> …if the decision maker is prepared to accept a set of rules (or axioms) which most people would regard as sensible then, to be rational, he or she should prefer the indicated course of action to its alternatives.

However, much of the decision making which takes place in an organisational context does not readily accommodate the 'ideal form' represented in the classical model of rationality. Cyert & March (1963) recognised this limitation, arguing that because of the pluralistic, social nature of the organisation, the focus on the individual by the pure classical model was an unrealistic one. Based on concerns such as these, alternative views of rationality began to emerge. One of the variations

on instrumental rationality to emerge was the idea of 'bounded' rationality, usually associated with Simon (1957). The chief lesson of bounded rationality is to "replace the goal of *maximizing* with the goal of *satisficing*, of finding a course of action that is 'good enough' "(Simon 1957: 204-205, italics in the original).

Within his theories of bounded rationality and satisficing, Simon argues that decision makes operate within time and cognitive limitations that prevent them from evaluating all possible decision outcomes (Agosto 2002: 16). Here he reflects the view that managers can only be rational within the constraints or 'boundaries' imposed by factors such as resources, experience and knowledge of the available alternatives (Simon 1976).

One of the key advantages of the concept of 'bounded rationality' is that it still allows the underlying ideas of the classical model to be utilised while preserving its basic tenets. These include the individual, free action and calculated choice between alternatives that are the foundations of the pure classical model (Klass 1999: 23). As Klass (1999: 23) states:

> Like the pure classical rationality model, bounded rationality does not see problem framing as a major difficulty. Bounded rationality is still about problem solving or decision making and the processes described are still step-by-step or algorithmic (rule-based) procedures, differing from those of pure rationality only in that they are expedient and heuristic, that is, involving rules of thumb to guide their actions and select options.

This idea of simplification underlies almost all of Simon's work in human cognition (Agosto 2002: 17). Simon's concept of bounded rationality, still begins with the notion that people are goal-oriented, but he argues that they often fail to accomplish this intention because of the interaction between aspects of their cognitive architectures and the essential complexity of the environment they face (Jones 2002: 272) – thus they 'satisfice' rather than 'optimise'.

Another view of rationality is that presented by Brown (1988), and more recently by Healy (1993), where they have argued for a view of rationality as involving *judgement* in an essential way (Reiner 1994). The notion of judgement that both have in mind is derived from Putnam's work on practical knowledge, and Polanyi's work on skills and tacit knowledge: judgement in this sense involves performing well in some domain without following *rules* (Reiner 1994). Healy (1993, paragraphs 7-

8) claims that "the key factor in establishing the reliability of judgement is expertise, acquired through training and practice in a particular area."

As Klass (1999: 24) observes, here Brown (1988) presents an alternative view of rationality that removes some of the stringent requirements of the classical model and moves the concept of rationality away from the individual and towards a social setting.

> In distinguishing between a 'rational agent' and a 'rational person', Brown (1988) introduces the idea of a 'rational agent' able to make judgments where there is a lack of sufficient rules to determine decisions. This brings the notion of judgment to center stage and suggests that our ability to act as rational agents is limited by our expertise. No longer can deterministic rules be applied to analysis and to the evaluation of known alternatives. Both the inputs to the processes of analysis and the process itself are themselves subject to the process of selection, rather than being known in advance. Further, selections will be a function of the specific experience of the individual. This concept introduces the need for judgments to be evaluated and accepted.
>
> (Klass, 1999: 24)

The implication here for Brown (1988) is that the evaluation must therefore be undertaken by those within the situation who have the expertise to do so. This is related to Hargreaves Heap et al's (1992) perspective that rationality within this more public 'social' sphere is…

> ..much concerned with establishing the value of ends pursued and … action is as much an expression of those beliefs regarding value as it is the execution of a plan to satisfy given objectives.
>
> (Hargreaves Heap et al. 1992: 21)

It may be argued that the ideas of Brown (1988), outlined above, to some extent correspond to those presented by Habermas (1984). As Klass (1999: 24) observes, Habermas provides a distinct point of departure from the classical model of rationality in his explicit rejection of its fundamental tenets. While still focusing on understanding rationality and action, the focus now becomes the situation where there is the impact of the social environment, where preferences are not well defined and where the objectives come in the form of doubt and uncertainty within the individual (Hargreaves Heap et al. 1992). Here Habermas' work is informed by the basic conviction that history is the arena for the operation of reason and…

> ...reason is, for him (i.e. Habermas), a human disposition for rationality which is inherent in the use of speech. Language is the vehicle for the most basic form of social action, namely communicative action.
>
> (Brand 1990: 43)

Rationality for Habermas is thus an inherently socially-based phenomenon requiring the involvement of many 'actors', moving away from the Weberian "philosophy of consciousness" where rationality is goal rationality (i.e. goal directed) to an alternative paradigm of "communications theory" (Klass 1999: 24).

Habermas argues that reason is situated in all subject-subject relations, which he refers to as communicative rationality. Through communicative rationality, a shared understanding of the meanings of various acts of cognition and manipulation of objects can be achieved. The basis for this rationality is language and Habermas believes that here the focus of investigation necessarily shifts from cognitive – instrumental rationality to communicative rationality, stating:

> ..and what is pragmatic for the latter is not the relation of a solitary subject to something in the objective world that can be represented and manipulated but the intersubjective relation that speaking and acting subjects take up when they come to an understanding with one another about something. In doing so, communicative actors move in the medium of natural language, draw upon culturally transmitted interpretations, and relate simultaneously to something in the one objective world, something in their common social world and something in each's own subjective world
>
> (Habermas 1984: 392)

In his discussion of these concepts raised by Habermas, Klass (1999: 25) argues that this theory of Communicative Action thus emphasises the central role of rationality in explaining social interaction, in that plans of action of different actors are coordinated through an exchange of communicative acts i.e. action is coordinated on the basis of motivation through reason.

Communicative rationality, through which shared understanding evolves, is an important pre-requisite for understanding what impacts on commitment to a decision with respect to this study. However, within this view, shared understanding - even if genuinely wrought - does not necessarily lead to shared agreement regarding the appropriate decision to be taken.

In outlining how we come to a shared understanding of a situation via language, Habermas (1984) introduces the idea of the three 'worlds' (objective, social and subjective) i.e.

1. The objective world: Acts relating to the objective world are intended to represent the state of affairs in the objective world and involve claims of truth
2. The social world: Communicative Action relating to the social world of interpersonal relations is intended to establish interpersonal relations and validity claims related to norms of rightness
3. The subjective world: Communicative Action relating to our internal subjective world involves validity claims relating to sincerity

Within each world, in Communicative Action the recipients react to a claim presented in a message by:

1. understanding its meaning
2. taking a stance of agreement or disagreement with the message
3. if in disagreement, the receiver then presents his/her position for disagreement

(Brand 1990:26).

Communicative Action differs from both of Habermas' alternative concepts of Instrumental Action and Strategic Action in significant ways. Strategic Action is action oriented to success with people or subjects and Instrumental Action may be described as action oriented to success with objects. On the other hand Communicative Action is oriented to achieving shared understanding between subjects (Habermas 1979: 117-119). This is the key source of its relevance to this study.

As Klass (1999: 26) notes, within communicative rationality, shared understanding is reached through the exchange, criticism and dynamic resolution of 'valid' claims and counter claims. This process of communicative interaction eventually leads to a mutually agreed definition of the situation (Habermas 1979).

Brand (1990) believes that our use of language indicates a desire to achieve consensus, implying as Klass (1999: 26) noted, an inherent motivation for achieving Habermas' "*ideal speech situation* in which discourse can fully unfold its potential

for rationality". Rationality for Habermas is therefore a quality inherent in being human, and it is also an integral, if unconscious, objective of human communication.

These notions and contrasts between classical, bounded and communicative rationality are of central importance when connecting literature to Decision Conferencing as they underlie the strongest theoretical component of the process, Decision Theory and also begin to suggest the limitations of Decision Analysis alone to effectively support the decision-making process. As de Reuck et al (2000) argue, there is an underlying assumption within Decision Conferencing that individuals will automatically make rational decisions when participating in a Decision Conferencing environment. This assumption of rationality is applied in Decision Conferencing by believing that when individuals become part of a group they will make rational decisions regardless of the impact the decision may have on them as individuals. However, de Reuck, Schmidenberg & Klass (2000a) argue against this traditional understanding, as it does not recognise group dynamics, the notion of moral values, or the roles of power within group settings. No consideration is made in regard to the individuals' level of authority/responsibility or beliefs in comparison to other group members. It is simply assumed that each member will put aside their own fears and prejudices to ensure that the best outcome for the group is achieved. Nor are Habermas' ideas regarding communicative rationality sufficiently integrated into the Decision Conferencing process.

2.5.2.2 Decision Theory and Decision Analysis

Despite some of the concerns indicated in the previous section, it is recognised that there are a number of benefits provided to Decision Conferencing practitioners by the strong underpinning of Decision Theory, embodied within the practical application of Decision Analysis.

Decision Analysis is the applied technology developed from Decision Theory (Phillips 1990b). Developed in the 1920's by Frank Ramsey (Ramsey 1931), Decision Theory relied heavily on the concepts of both classical and bounded Rational Choice Theory as discussed earlier (e.g. von Winterfeldt & Edwards 1986; Hargreaves Heap et al. 1992), but at that stage did not incorporate the notion of Communicative rationality (Klass 1999: 27).

Embracing the notion of 'coherence', Decision Theory implies that decisions taken at a point in time should be consistent and correspond (Klass 1999: 27). As part of this, various perspectives of Decision Theory have in common four assumptions regarding coherence. These include:

1. **The Principle of Ordering** - the decision maker must be able to put choices in order of preference i.e. a person must be able to say that he/she prefers A to B or B to A or is indifferent between A and B. What is not allowed is a no preference response (i.e. 'I don't know').
2. **The Principle of Transitivity** - the decision makers' preference ordering is transitive in that if he/she prefers A to B and B to C then it follows that he/she prefers A to C.
3. **The Principle of Dominance** - This principle states that if A is in every respect as good as B and is better in at least one (other) respect, then A should be preferred to B. For example: I toss a fair coin and if you call the outcome correctly you win otherwise you lose. If Wager A is *you win $5 or you lose $5* and Wager B is *you win $5 or lose $10* then Wager B is dominated by Wager A.
4. **The Sure-Thing Principle** - This principle states that when you form your preference between, for example, 2 options A and B, you should not be influenced by identical aspects they hold in common.

(Klass 1999: 27)

As Klass (1999: 27 notes), the theory proposes that it is only necessary to accept these as required principles to be applied to the decision at hand. An acceptance of Ordering, Transitivity, Dominance and the Sure-Thing as reasonable principles to be applied to the decision, implies that the preferences and the decision that follow from them will thus be coherent.

As discussed earlier, Christensen & Fjermestad (1997: 373) noted that increasing environmental uncertainty has led to greater information processing demands, exacerbated by the velocity of the perceived change. Decision makers have to make decisions and take actions in the present that will have uncertain consequences. In an attempt to encompass uncertainty in the decision-making process, there are three basic theorems within Decision Theory designed to achieve this and to provide coherence i.e.:

Theorem 1: states that probabilities exist

Theorem 2: states that utilities exist

Theorem 3: demonstrates how probabilities and utilities combine to determine expected utility

Further, in dealing with uncertainty and incorporating the above, two of the prevalent approaches which have emerged to support decision making are:

1. Multi-Attribute Utility Theory (MAUT), focusing on risk and uncertainty; and

2. Multi-Attribute Value Theory (MAVT), with its use of preference scores

Both of these approaches have emerged based on differences in the employment of Decision Theory and are briefly discussed below.

MAUT is closely associated with the Harvard School, mainly in connection with Howard Raiffa and Ralph Keeney (Keeney & Raiffa 1976) and the Stanford School via Ron Howard and Jim Matheson (Howard & Matheson 1984; Howard 1996). As Klass (1999: 27) explains, common structures adopted here to support decision making includes the use of decision trees, influence diagrams and multi-attribute utility models.

Identifying MAUT as closely tied to the theoretical origins of Decision Theory, Klass (1999: 27) explains the generic approach as follows:

> These multiple criteria/attributes are identified and dealt with by 'pricing out' each criteria so it can be expressed in monetary values. All the attributes can then be collapsed into a single monetary criterion that allows a utility function to be determined and assessed. The key assumption here is that, ultimately, everything can be expressed in monetary terms.

Howard & Matheson (1984) discuss several cases using MAUT.

Alternatively MAVT advocates direct, judgmental ratings using preference scores (Edwards 1977). This approach places significant emphasis on multi-attribute value models with difference-rating techniques used to generate scores on the value criteria (Klass 1999: 28).

Edwards & Newman (1982) later developed a simple, multi-attribute rating technique (SMART), which was subsequently augmented by Edwards & Barron (1994) to facilitate the elicitation of weights in the modeling process. However,

there are several other approaches that have been devised to assist in the elicitation of preference data regarding the various options. As Klass (1999: 28) notes:

> The output is an additive value function that forms the basis for determining the best alternative(s). The key to these approaches is the interactive sensitivity analysis used to clarify fuzzy ideas, data and doubts of the decision maker before a solution is selected.

Various other alternative approaches have also been suggested by Belton and Hwang (Belton 1990; Belton 1985; Hwang & Masud 1979).

In effect, the models created by MAVT reflect their view of the decision situation, incorporating uncertainties, judgments and the various trade-offs on the criteria they have established. In contrast, a MAUT model is more typically a model where this uncertainty, having been modified through the application of Bayes theorem, is really only one input with a utility function as another (Klass 1999: 28). As Klass (1999: 28-29) observes here, with regard to MAUT, much of the emphasis is placed on calculating the value of information and gathering information.

Having briefly outlined the key elements of Decision Theory and provided an overview of its practical application in terms of Decision Analysis, the next section focuses more directly on the role of Decision Analysis in supporting the decision maker.

2.5.2.3 The Supporting Role of Decision Analysis

According to Klass (1993: 29), the opinion of many prominent in the field (e.g. von Winterfeldt & Edwards 1986; Howard 1996; Raiffa 1968; Edwards 1977; French 1989) is that the aim of Decision Analysis should be to focus on assisting decision makers explore the problem(s) with which they are faced, to learn about their values and preferences and to appraise their real objectives. This process is then seen as finally leading to a preferred course of action. Here formal decision analytic models support the consideration and accommodation of complex information, in bringing this data to bear on the situation at hand.

Consequently, the main aim of Decision Analysis is to support the decision maker in their deliberations, rather than to arrive at the 'correct' solution. By enabling decision makers to decompose their problem into manageable components in a rational consistent manner, it is argued that Decision Analysis enhances the decision-

making process. Supporting this view, Goodwin & Wright (1991) also argue that Decision Analysis helps decision makers in dealing with complexity by breaking down the issues into their constituent parts. Here the authors argue that:

> Decision Analysis therefore involves the decomposition of a decision problem into a set of smaller (and hopefully, easier to handle) problems.
>
> After each smaller problem has been dealt with separately, decision analysis provides a formal mechanism for integrating the results so that a course of action can be provisionally selected.
>
> (Goodwin & Wright 1991: 3)

Thus, Decision Analysis is not perceived as a method for producing optimal solutions to complex decision problems, but rather as a 'thinking tool' to support the decision process (Klass 1999; Phillips 1989b). Further, Keeney (1982) argues that Decision Analysis is not intended to solve a decision problem; rather its purpose is to promote creativity and insight in order to enhance decision quality. This view is also reflected in Phillips (1989b) i.e.:

> Decision theory has now evolved from a somewhat abstract mathematical discipline which when applied was used to help individual decision makers arrive at optimal decisions, to a framework for thinking that enables different perspectives on a problem to be brought together with the result that new intuitions and higher-level perspectives are generated.

Decision Analysis thus plays a central role in the Decision Conferencing process, as will be discussed in the following section.

2.5.2.4 The Role of Decision Theory and Decision Analysis in Decision Conferencing

Phillip's earlier papers on Decision Analysis and its application to complex problem solving can be seen as the precursor to his work on Decision Conferencing (Phillips 1983; Phillips 1984).

According to Phillips (1988a; 1990b), Decision Theory plays three roles within the Decision Conferencing process. First, Decision Theory provides a language that participants can share. As Phillips (1990b) states, even within the same organisation there are often misconceptions regarding common terms such as Mission or Vision.

Thus,

> Decision theory provides a language that makes it possible to fix the meanings of these terms in a way that contributes to the subsequent development of a model.
>
> (Phillips 1990: 144)

Second, Decision Theory provides a grammar for manipulating meaning and establishing priorities in ways that are not easy with words alone. An example of this is problems involving multiple objectives and requiring tradeoffs. This is where multi-attribute utility models can assist. As Phillips (1989a) states:

> Enabling comparisons is one of the most important contributions that decision analysis can make.

The third critical role that Decision Theory plays is that it provides a structure to thinking. "The form of the model developed . . .shows how parts of the problem interrelate"(Phillips 1990b: 145).

Morgan (1992) concurs with this view that decision theory provides the structure and language with which participants can think and talk about the problem. As Phillips (1988a) notes:

> The goal is to find an overall ordering of the options, and this is achieved by scaling the options on the individual attributes, assigning relative weights to the attributes and then taking a weighted average of the individual scales. Multiatttribute value modeling is the approach favoured by decision analysts.
>
> (Phillips 1988a: 211)

Resource allocation problems present a large number of options and only a few objectives. The goal is finding the best way of allocating a fixed resource (for more detail see Phillips 1988a: 212) and Phillips argues that the best way of achieving this is through the application of Decision Analysis i.e.:

> Much of a senior manager's work is concerned with evaluating options and allocating resources in light of conflicting objectives and uncertainty about the future (which can be accommodated in a multi-attribute model as a risk attribute or by incorporating alternative scenarios).
>
> (Phillips 1988a: 211)

de Reuck, Schmidenberg & Klass (2000a) expand upon this by stating the reason for Decision Conferencing is to encourage consistent, rational judgements across

multiple criteria in group decision making. Decision Analysis is presented as one of the key factors in accomplishing this task.

In describing the application of Decision Analysis to Decision Conferencing, Phillips (1980: 33) presents a 10 step process i.e.:

1. Recognise that a decision problem exists
2. Structure the decision problem
3. Describe the consequences
4. Specify the criteria
5. Evaluate the consequences for each criterion
6. Assess weights for the criteria - not all are equally important and the units of the scales may not be equivalent
7. Determine utilities of consequences - NB the utility is not the same as the consequence itself
8. Assess probabilities
9. Apply the expected utility principle
10. Carry out sensitivity analyses - try to find out the extent to which the decision maker's choice is sensitive to his assumptions and judgments.

In effect, this is the modeling process referred to within the Decision Conferencing literature. Phillips' (1990: 14) argument here is that by breaking down the problem into its constituent parts it makes the decision making more manageable i.e.

> By breaking the problem down into its constituent parts it becomes easier to exercise judgment about any individual part and then all the parts are reassembled at the end by applying decision theory.

While Adelman (1984: 82) claims that groups that use multi attribute utility assessment procedures in conjunction with group facilitation procedures tended to make more accurate decisions than groups using only facilitation procedures, the point reinforced here is that the role of Decision Analysis is not so much to provide a 'best solution' but rather to act as a guide. As Phillips (1980) notes, it should not be seen as an optimal model that dictates the 'best' solution. This contrasts with recent views propounded by de Reuck, Schmidenberg & Klass (2003), where the authors argue for a stronger emphasis on the epistemic quality of the decision outcome.

2.5.2.5 Computer Modeling in Decision Conferencing

As discussed in the above overview concerning Decision Theory and its practical application in Decision Conferencing, the conceptual basis for the models is multi-attribute decision theory (Klass & Schmidenberg 1992c).

The models generated here are what are commonly referred to as requisite models (Phillips 1984; Phillips 1988b). That is, they are considered sufficient in form and content to solve the problem at hand or resolve the issues of concern (Phillips 2000a). Furthermore...

> ..requisite models represent the shared social reality created by the group …The model is only a guide to action, not a normative prescription, and at best it is conditionally prescriptive
>
> (Phillips 1990b: 149-150)

This model may incorporate both objective data and participants' own perspectives, judgments and preferences (Phillips 1989c; Phillips 1988b; Thierauf 1989; McCartt & Rohrbaugh 1990; Galliers et al. 1991; Klass & Schmidenberg 1992c).

As Quaddus, Atkinson & Levy (1992: 63) comment:

> A major feature of Decision Conferencing is modeling the problem using multiattribute utility/value theory (MAUT)... We used a software called HIVIEW™, which is built around a variation of the simple multiattribute rating technique (SMART) (Edwards, 1977; Watson and Buede, 1987). SMART is a simplified approach to MAUT that does not include the rigorous evaluation processes Keeney and Raiffa (1976), among others recommend...SMART assumes that value equals utility, does not define any natural scale, and elicits a 'desirability score' ("value") directly for each alternative on each attribute (Winterfeldt and Edwards, 1986). The multiattribute desirability score of SMART is simply a weighted sum of individual desirability scores.

There are different variations of SMART. Like many of the other Decision Conference practitioners, Curtin University of Technology uses a more rigorous swing-weighting scheme. Swing weighting considers the range and importance of the change from the best alternative to the worst alternative of one attribute over similar change in another attribute. Quaddus et al (1992) comment that this is considered more theoretically sound than the simple importance rating scheme.

One of the perceived benefits of the modeling tools used in Decision Conference is the application of sensitivity analysis. Sensitivity analyses are considered to play the

most important role in forming the requisite model for a decision problem and in enabling new intuitions to emerge about the problem (Quaddus 1992: 66). The argument here is that through use of sensitivity analysis a better, more robust decision emerges (Eden 1990: 193).

Adelman (1984: 82) argues that the application of real time sensitivity analyses quickly illustrates the potential implications of different courses of action. Galliers et al (1991: 159) argue that this allows the removal of ineffective strategies and enables attention to be focused on key issues of major impact. This ability to evaluate the sensitivity of the outcomes to small changes in any of the ratings is also propounded as a benefit by (Eden 1990: 193).

The use of sensitivity analysis is also seen as a useful tool not just for considering different courses of action, but also for taking into account the impact of participants assumptions which are built into the model. As Schuman & Rohrbaugh (1991a: 156) note, sensitivity analysis makes it possible to examine the implications of different assumptions about costs and benefits. This view is supported by Klass & Schmidenberg (1992c) where they state:

> The group examines the decision model, discusses its implications, modifies it, tests its sensitivity and explores the potential effects of the adoption of alternative decision assumptions. Sensitivity analysis enables the group to focus on those issues which have an impact on the final outcome and to avoid the trap of incessant debate over issues which, in the end, are of little or no importance to the solution.

The authors also argue here that the process of discussing the model and testing the different judgments used in its construction is also a crucial stage in the building of a shared understanding between participants.

Further, Phillips & Phillips (1990; 1993: 547) argue that sensitivity analysis can help to minimise the threat to individuality posed by the group life in that it reveals agreement about actions in spite of differences of opinion about details. Phillips & Phillips maintain that the assessment of the options, incorporating judgments allows the development of new higher level perspectives. The sensitivity analyses in the modeling helps to demonstrated that the overall ordering of the options is often insensitive to considerable variations in many of the judgments. This allows individuals to agree on what to do even while disagreeing on matters of judgment. As Phillips & Phillips (1993: 547 - 548) state:

> In this way the collectively-best solution can be agreed while preserving individual viewpoints that differ from each other...it is this feature of decision models that helps a group achieve a shared understanding of the issues (which does not necessarily mean that everyone agrees) and a commitment to action.

However, de Reuck, Schmidenberg & Klass (2002: 11) contend the view that sensitivity analysis provide better epistemic outcomes, stating:

> While sensitivity analysis may well shift the relativities among the optimal set, it cannot engage with suppressed alternatives held by members of the group not surfaced. We must avoid the misunderstanding that a sensitivity analysis, which assesses the impact of a preference measure, delivers an improvement in the epistemic value of the option.

This is an area which will be explored further in this chapter.

2.5.2.6 Decision Conferencing Software

The choice of software is made by the facilitator and depends on the issue that is to be addressed. The software has largely been developed by practitioners in the field, based on the theoretical base discussed above (especially Decision Analysis). The computer software used to construct models includes HiVIEW™ and VISA (multi-criteria modeling tools which may be used to evaluate alternatives), ALLOCATE and EQUITY™ (for allocation of resources) and cross impact models such as EZ-IMPACT for evaluating various policy options involving disparate stakeholder groups. The models generally use simplified multi-attribute utility methods and according to Atkinson & Marshall (1990: 24) their strengths include:

1. ease of use
2. flexibility in revising the model
3. general robustness
4. good graphical displays
5. facilities for sensitivity analysis

As an example, ALLOCATE is a resource allocation package, designed to assist Decision Conference participants to prioritise projects. As Williams, Klass & Morien (1997) explain:

> The program prioritises projects on the basis of an analysis of incremental benefit to cost ratios and produces an ordered listing of

> 'favoured packages' representing those projects that achieve the greatest benefit (as defined by the subjective or objective criteria determined by the 'problem owners') in relation to cost for a given level of resource, or alternatively, a given level of benefit for a specified minimum expenditure.

An important feature of ALLOCATE is its ability to incorporate an important concept from decision theory, that of uncertainty. It does this by allowing the use of probability estimates regarding expected benefits. ALLOCATE also facilitates sensitivity analysis. Participants go through an iterative process, reviewing various packages as they can gain a better understanding of the implications of the judgments they make until the decision makers decide on what is the 'best' package to suit their needs.

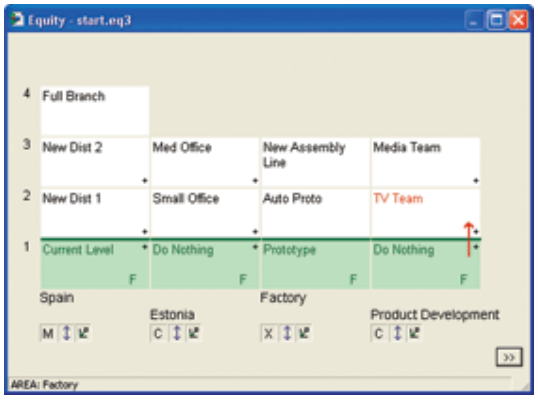
The majority of cases within this study utilised EQUITY™, thus a description of a standard modeling approach utilizing this software is the focus of this section. As with ALLOCATE, the majority of EQUITY™ models are built in order to allocate monetary resources to a portfolio of investments. This could be how to most effectively allocate a Council's budget, determining which R&D projects to invest in or deciding on the appropriate distribution of a marketing budget.

A description of the general application of EQUITY™ is available online from Catalyze Ltd, part of the commercial arm of the LSE associated with Phillips (Catalyze Ltd 2003a). However, in short there are 5 main stages to modeling in EQUITY™. The following descriptions and illustrations concerning these stages are based on descriptions from the Catalyze website (Catalyze Ltd 2003a).

Stage 1: Constructing a Model

The first stage in actually constructing the model is to put together an outline. For example, in the structure below each 'box' represents an area for possible investment. As indicated in the figure over, this creates 'vertical towers of options' (Catalyze Ltd 2003a).

Figure 2-6 EQUITY™: Constructing the Model



(Catalyze Ltd 2003a)

These options could represent either several distinct projects or possibly different degrees of funding for a particular proposition.

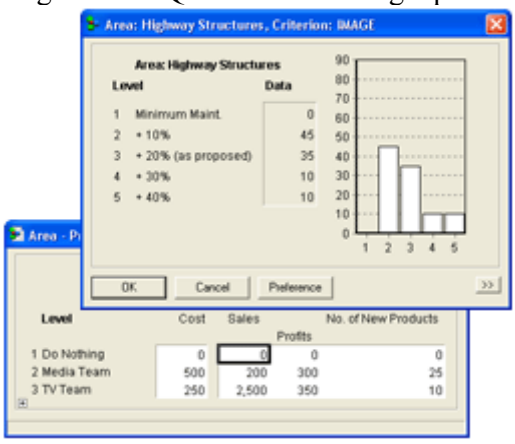
Stage 2: Scoring Options

Stage 2 involves scoring the various options against a set of criteria. The criteria may be defined either during or prior to the Decision Conference and are not necessarily monetary. Generally the criteria are grouped under two headings e.g. Benefits and Costs. As the Catalyze Ltd (2003a) site states:

> One of the advantages of multi-criteria decision analysis (MCDA) is that it allows quantification of non-monetary assets. This is seen as especially important for public sector and not for profit users.

Figure 2-7 (below) presents the screens associated with this stage.

Figure 2-7 EQUITY™: Scoring Options



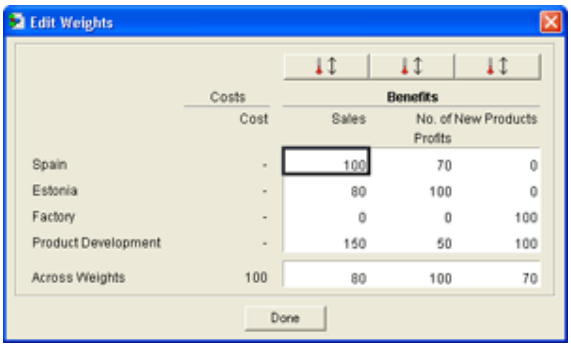
(Catalyze Ltd 2003a)

EQUITY™ permits either numerical or graphical entry of the scores. The choice here is made by the facilitator on the basis of what the group is likely to be most comfortable with.

Stage 3: Setting Preferences

The process of setting preferences is seen as a key differentiator of MCDA over other Decision Analysis techniques (Catalyze Ltd, 2003). Based on the group's value judgements regarding the relative importance of the various components of the model, preference ranking of each of the options is conducted against each criterion. The following figure illustrates the display associated with this stage of the modeling process.

Figure 2-8 EQUITY™: Setting Preferences



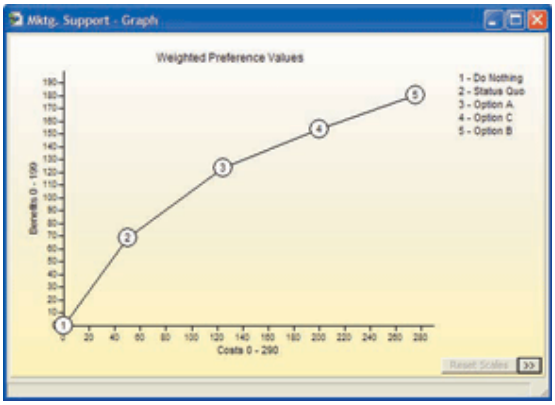
(Catalyze Ltd 2003a)

As discussed earlier, preferences are set using swing-weighting techniques, which are seen as technically more robust than simply setting relative importance of criteria.

Stage 4: Analysing the Model (a)

Having completed Stages 1 to 3, a number of different analyses can be conducted exploring the implications of the model. For example a Weighted Benefit-Cost Ratio is used to sort all the options within areas. This is illustrated in the following figure where the steepest line represents the highest Cost-Benefit ratio thus providing the most value for the investment (costs) required. These options should thus have priority over those which contribute a smaller degree of benefit for the same investment.

Figure 2-9 EQUITY™: Analysing the Model



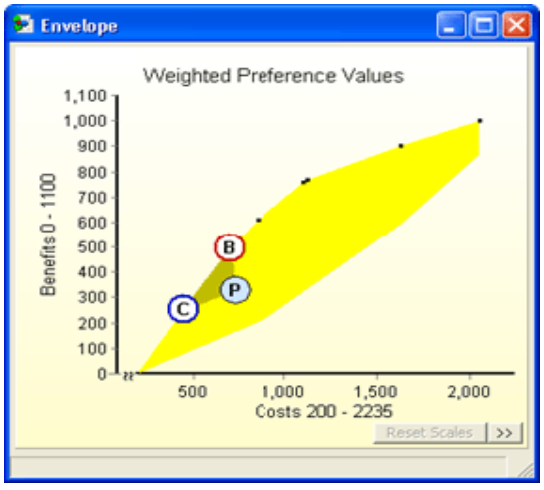
(Catalyze Ltd 2003a)

It is possible that still other options may be a rational choice for the group, depending on their propensity to bear higher costs. It is also possible to test cost sensitivity to see whether the weightings here would make a difference to the outcome.

Stage 5: Analysing the Model (b)

To achieve the most efficient investment across the whole portfolio, all the options in all the areas must be considered together. The Envelope graph represented in Figure 2-10 reflects all of the possible combinations of investments. The line across the top represents the Efficient Frontier. The Efficient Frontier shows those 'packages' of options which generate the most benefit for a given cost.

Figure 2-10 EQUITY™: The Efficient Frontier



(Catalyze Ltd 2003a)

In discussing this graph, Catalyze Ltd (2003a) state:

> The graph also shows a P symbol representing the original portfolio proposed by the decision makers. The B symbol shows how to achieve more benefits for similar cost. In our experience, the effectiveness improvement from P to B averages 30%.

While this is the last formal stage in the construction and evaluation of the model, in reality the modeling stage is not complete until the group is satisfied with the outcome. As Klass & Schmidenberg (1992c) observe:

> The modelling stage is usually not finalised until the group is comfortable with the model and is satisfied that it accurately encapsulates their preferences, perspectives and values.

Once this has occurred, an action plan is then generated.

2.5.3 Small Group Processes and the Role of the Facilitator

While Decision Analysis confers many benefits to groups making important decisions, it is argued that this needs to be augmented by an understanding of small group processes (Phillips 1990b: 147).

However, whilst the literature surrounding group decision making presents a number of factors to be considered when working with groups (as discussed in Section 2. 2), exactly how this is to be operationalised within Decision Conferencing is not addressed in the main body of the extant literature. This means that much of the facilitation of the Decision Conferencing process appears to be intuitively based and builds on prior experience, rather than being supported by a sound theoretical framework.

An example of an impact of this is in the implicit view within the Decision Conferencing literature that participants are all at the same level and equally able to speak and be heard. This is an unrealistic assumption given the context in which Decision Conferences take place and is not supported in the general small group process literature. Indeed it is the belief that this has not been adequately taken into account within the Decision Conferencing process that drives much of the recent theory building work by de Reuck et al (e.g. de Reuck, Schmidenberg & Klass 2003).

A further issue regarding power and influence is the point that while many complex decisions are made jointly by a committee or group structure, the individual group members are often not equally qualified to contribute equitably to the decision process, or may have different desires to influence the decision (Van den Honert, 2001: 275). Again this is not explicitly addressed in the Decision Conferencing literature.

Although the role of the facilitator has received a great deal of attention in GSS research (Clawson & Bostrom 1996; Clawson & Bostrom 1995; Phillips & Phillips 1990; Ackerman 1996: Kelly & Bostrom 1997; Dickson, Partridge, & Robinson 1993; Dickson, Lee-Partridge, Limayem, & Desanctis 1996; Whiteley & Garcia 1996; Vennix 1999; Briggs, Nunamaker Jr, & Sprague Jr, 1998/99; Fjermestad & Hiltz, 1998/99), the only apparent attempt to encompass this role within a proposed theoretical base within the Decision Conferencing context has been in discussion papers put forward by de Reuck, Klass and Schmidenberg (e.g. de Reuck, Schmidenberg & Klass 1999). In their early papers, the authors argue that the process of communication and facilitation in which the computer modeling is embedded within the Decision Conference process is "seriously under-theorised" (e.g. de Reuck, Schmidenberg & Klass 1999: 195).

Building on previous work, the authors' most recent paper presents a discussion of strategic planning and the requirement for robust group decision management processes in which to embed the planning procedures (de Reuck, Schmidenberg & Klass 2003). Within this article, de Reuck et al (2003) draw on Habermas' work (e.g. Habermas 1979; Habermas 1990), integrating this with their extensive Decision Conferencing experience. Here they developing a process whereby the authors claim that conditions can be created under which any group can optimise their decision quality and make the 'best cognitive bet' the group is capable of at that time (de Reuck, Schmidenberg & Klass 2003: 13). Essentially the authors propose the following conditions to ensure decision quality:

a. authentic debate – discourse for democratic attraction and communication – group members must agree to be bound to the authority of the better argument

b. treating the group members with dignity – cognitive respect

c. commitment by the group to be receptive to diversity of opinion

d. diversity of perspective and judgment – entitles group members to maintain their opposition, even to the decision finally endorsed by the majority

e. group commits to accepting cabinet responsibility for decision is endorsed by the majority

These principles are seen as a means of civilising the debate and are "..vindicated by the procedural fairness and subsequent legitimacy and so secure group buy-in by maintaining individual authentic autonomy." (de Reuck, Schmidenberg & Klass 2003: 17).

Much of the above is linked to Habermas' Theory of Communicative Action, defined as follows:

> Communicative action can be understood as a circular process in which the actor is two things in one: an *initiator,* who masters situations through actions for which he is accountable, and a *product* of the transitions surrounding him, of groups whose cohesion is based on solidarity to which he belongs, and of processes of socialization in which he is reared
>
> (Habermas 1990: 135)

In Communicative Action the recipients react to a claim presented in the message by first understanding its meaning, subsequently taking a stance of agreement or disagreement with the message and if in disagreement, the receiver then presents their position for disagreement (Brand 1990: 26). As touched on earlier, Communicative Action thus emphasises the central role of rationality in explaining social interaction. Here, plans of action of different actors are coordinated through an exchange of communicative acts i.e. action is coordinated on the basis of motivation through reason. It is possible that through this process a form of shared understanding emerges however this would depend on the perceived validity of the process and this is heavily dependent on the facilitation.

Additional issues such as roles, responsibilities and accountabilities and their impact on group functioning are also not addressed in the Decision Conferencing literature. For example, whilst Decision Conferencing theory draws on the Tavistock approach to group functioning and group dynamics as well as on aspects of organisation theory such as Jacques' (1989) ideas on organisational structure (Klass & Schmidenberg

1992c), it seems it does not draw sufficiently on the ideas behind Jacques split from the Tavistock Institute in 1952. Jacques experiences at that time led him to rethink his views on group dynamics in the context of organisations. He came to the conclusion that difficulties in these groups lay not in group dynamics and personality differences, but in the unreality of group decision making in a managerial hierarchy organization. As Jacques (1998) comments in looking back at this realization:

> there is no such thing in life as situations with free floating accountability and authority, in which something of the order of generalized group processes can occur…
>
> The second and equally illuminating finding was that it is possible to bring far-reaching and rapid changes in behavior and in interpersonal relationships, without any change occurring in individual personality, simply by clarifying the nature of the required working relationships, or by clarifying and modifying them. Accountability and authority are at the center of all human relationships. The clarification of the required accountability and authority can have the most profound and lasting effects upon the ways in which people behave toward each other.
>
> (Jacques 1998: 256)

As Jacques (1998) suggests here, the notions of individual action and accountability are critical factors in group decision making and it is unwise not to take this into account.

2.5.4 Summary

The preceding discussion reviewed the extant Decision Conferencing literature in terms of the underlying theoretical base on which the process rests. Whilst there is substantial support for the role of Decision Analysis in supporting decision making, evidence for the support of group decision making is not as strongly apparent in the literature.

Further, while the computer modeling is an integral component of the Decision Conference process and based on the solid foundation of Decision Theory, there are some concerns in recent work that the underlying rationality assumption does not adequately accommodate the social and communicative aspects of group communication.

As a consequence of the above it is suggested that the facilitation of the process is under-theorised.

2. 6 The Aims of Decision Conferencing

2.6.1 Primary Goals – Shared Understanding and Commitment to Action

Klass & Schmidenberg (1992c: 1) describe a Decision Conference as a working meeting involving participants who have stake in or responsibility for a pressing organisational problem.

It is well accepted in the field that the aim of a Decision Conference is to achieve a shared understanding of the issues facing the group, develop a sense of common purpose and a mutual commitment to action (Phillips 1988a; Phillips 1989e; Phillips 1990b; Phillips & Phillips 1993; Galliers et al. 1991; Quaddus, Atkinson & Levy 1992).

Morgan (1992) adds to this stating that the purpose of Decision Conferencing is to help decision makers understand their beliefs, judgments and preferences in the context of choices facing them. Language and 'formalism' of the decision analytic process facilitates communication by focusing on critical issues. Thus, for Morgan (1992) one of the key outputs of a Decision Conference is this shared understanding. The argument is that the group can then make better decisions and develop 'commitment to and support for the decision taken' i.e.

> Because they are fully involved in all stages of the analysis and the growth of this understanding, the decision makers gain a strong commitment to the implementation of the decision.
>
> (Morgan 1992: 4-5)

This is a view expounded earlier by Thierauf (1989: 194-199) when he states:

> By examining the implications of the model, then changing it and trying out different assumptions, participants develop a shared understanding of the problem and are helped to an agreement about what to do….Essentially, decision conferencing helps a shared understanding to emerge from different perspectives. It builds commitment and generates plans for action.

However, de Reuck et al (2002) challenge this fundamental assumption of a link between shared understanding and commitment i.e.:

> It is also a mistake to believe that even if we could achieve a genuinely wrought shared understanding of the issues confronting the executive team; this would necessarily lead to real agreement on the decisions committing the group to actions. It no more follows that a deep, shared understanding of the awfulness of death would lead any

> rational group to a singular, rationally forced commitment to a particular configuration of strategies.

This questioning of the basic assumption that shared understanding and commitment are valid goals of the Decision Conferencing process and of the generally acceptance of the link between computer modeling, shared understanding and commitment form the basis for this study.

In order to further build the context for this examination, the following sections examine both shared understanding and commitment as they are presented in the extant Decision Conferencing literature.

2.6.2 Shared Understanding

As can be seen from the model of Decision Conferencing presented in the previous section, the development of a shared understanding is a central tenet of the Decision Conferencing process. As Thierauf (1989: 199) states:

> Essentially, decision conferencing helps a shared understanding to emerge from different perspectives.

This view is evident in almost all of the Decision Conferencing literature (e.g. Dobson 1991; Galliers et al. 1991; Klass & Schmidenberg 1992c; Morgan 1992; Phillips 1988b; Phillips 1988a; Phillips 1989e; Phillips 1989c; Phillips 1990b; Phillips & Phillips 1993; Quaddus, Atkinson & Levy 1992; Schuman & Rohrbaugh 1991a; Thierauf 1989; Phillips 2000a; Phillips 2000b; de Reuck, Schmidenberg & Klass 2000a; de Reuck, Schmidenberg & Klass 1999), however to date there has been very little empirical evidence to support this claim.

This section examines the way the notion of shared understanding is expressed in the Decision Conferencing literature and highlights those facets seen as driving the creation of a shared understanding amongst Decision Conference participants.

2.6.2.1 Defining Shared Understanding

In Phillip's (1989e) discussion regarding the seven needs at the level of top management he identifies the need for *a shared perspective* on the key issues that concern their organisation (i.e. shared understanding). In discussing this in the context of Decision Conferencing, Phillips explains that this shared understanding of the issues is ‘not necessarily agreement about them’ (Phillips 1989e:144).

Following Phillip's lead the literature generally conceptualises shared understanding within Decision Conferencing as a shared understanding of other's views, but not necessarily agreement with them. For example:

> Shared understanding does not necessarily imply an agreement by participant members. It reflects more the fact that members understand the others' position with respect to the issue under study. The conference target is to encourage members to accommodate these alternative positions.
>
> (Dobson 1991: 32)

This view is echoed by Dobson (1991) and Schuman & Rohrbaugh (1991a: 148-149) i.e.:

> The Decision Conference provides an arena for bringing together people of diverse perspectives and for helping them develop a shared understanding of the problem and reach a consensus decision.

Again the argument is that a shared understanding does not necessarily imply agreement amongst the group members, rather it reflects an understanding of other's positions with respect to the issues being addressed. According to Dobson (1991: 32) the aim here is to encourage members to accommodate these alternative positions, with the requisite model developed acting as the external manifestation of the compromises agreed amongst participants.

Shared understanding is also seen as a critical component as it is a contributing factor to the development of a commitment to action. Dobson (1991) argues that commitment must derive partly from the shared understanding in that it requires recognition of alternate views and a consequent commitment to the final shared view.

For Klass and Schmidenberg (1992c: 3), shared understanding is quite different from the idea of "consensus" in that the emphasis is on recognising and accommodating differing perspectives into a final decision choice.

The following section examines perspectives regarding how this shared understanding is generated during a Decision Conference.

2.6.2.2 Creation of a Shared Understanding

One of the fundamental claims within the literature is that the modeling process is the catalyst for engendering a shared understanding amongst participants. This can be seen in the traditional model of Decision Conferencing presented in the previous

section; however it is important to note that there are allusions within the literature of additional factors coming into play. Both of these ideas will be explored further in this section.

As indicated earlier, the computer modeling itself is seen as providing the means to achieving a shared understanding of the issues. As Phillips (1989e: 95) states:

> By examining the implications of the model then changing it and trying out different assumptions, participants develop a shared understanding of the problem and reach agreement about what to do next.

It is also claimed that participants can try out ideas without commitment, then develop and refine their insights and thus achieve a shared understanding of the issues (Phillips 1989e: 151).

This claim that requisite modeling leads to shared understanding and commitment to action is also evident in another of Phillip's articles (Phillips 1989c) and also in the following statement:

> The purposes of a Decision Conference is to generate a shared understanding of a problem and a commitment to action. This is achieved by creating a computer-based model which incorporates the differing perspectives of the participants in the group, then examining the implications of the model, changing it and trying out different assumptions. As actions are shown to be insensitive to differences of opinion, as new, more robust options are developed, and as higher-level perspectives emerge, participants develop a common understanding that facilitates agreement about what to do next.
>
> (Phillips 1990b: 147 - 148)

One of the primary arguments presented in the literature is that group discussion, triggered by the computer modeling, leads to this understanding and subsequently to commitment. In essence, the argument is that within a Decision Conference the model becomes a focus for the discussions, helping the group to break their problem down into manageable portions. This in turn helps the group to share their individual views and assumptions, and to identify clearly any areas of difference within the group. The group can then examine the effects of their differing views by reviewing whether the model outcomes differ according to the changes made.

Complementing this view, Klass and Schmidenberg (1992: 3) argue that the process of discussing the model and testing the different judgments used in its construction is also a crucial stage in the building of a shared understanding between participants.

In so doing, group members also come to understand – but not necessarily concur with - the position of each of their fellow participants. Schuman & Rohrbaugh (1991a) build on this notion and add a further rationale regarding why modeling enhances understanding. Their argument is that by decomposing the problem into smaller and more manageable elements, each part can be examined and understood without disrupting the whole (Schuman and Rohrbaugh 1991a: 155). Furthermore, they state that with computer support:

> .. the group is able to explore and evaluate alternative solutions and their implications. This detailed level of analysis helps to create a common understanding of the problem, reduce inconsistencies in individual judgments, and isolate specific areas of disagreement for more efficient discussion.
>
> (Schuman and Rohrbaugh 1991a: 149)

Thierauf concurs with this view in his assertion that by examining the implications of the model, modifying it and trying out varying assumptions, 'participants develop a shared understanding of the problem and are helped to an agreement about what to do' (Thierauf 1989: 194).

In their description of the Decision Conference process, Schuman and Rohrbaugh (1991a) maintain that the first stage is the one primarily concerned with developing this understanding of the decision situation and the development of a common perception of the problem. However others see this as an iterative process which takes place throughout the Decision Conference (Galliers et al. 1991; Klass & Schmidenberg 1992c).

However, there is also some sense that it is not the modeling alone that assists this understanding, but also that the facilitation plays a part.

> The Decision Conferencing process increased shared understanding among the participants...This increase in shared understanding came about partly because the facilitator ensured that all perspectives were given equal representation and partly through the use of computer modeling. The group became committed to the strategic direction and enthusiastic about it.
>
> (Quaddus et al 1992: 70).

Here Quaddus et al (1992: 63) also argue that the facilitator must make use of the group dynamics to gain shared understanding and a commitment to action.

However, until recently this explicit recognition of the critical role of the facilitator was quite rare within the Decision Conferencing literature. The importance of the facilitation of the process was implied, but rarely overtly discussed. In part, the recent work by de Reuck et al (de Reuck, Schmidenberg & Klass 1999; de Reuck, Schmidenberg & Klass 2000b; de Reuck, Schmidenberg & Klass 2000a; de Reuck, Schmidenberg & Klass 2002; de Reuck, Schmidenberg & Klass 2003) seeks to address this oversight.

Galliers et al (1991: 159) argue that it is the integration and application of the theoretical foundations of Decision Conferencing, viz.: Decision Theory, Group Dynamics and Information Technology which overall enhances the group's shared understanding of the problem or issue.

2.6.3 Commitment to Action

2.6.3.1 Defining Commitment to Action

An explicit discussion of what is meant by commitment - and particularly commitment *to action* - is largely absent from the Decision Conferencing literature and terms such as agreement, consensus and commitment are used interchangeably. There is also very little discussion regarding *why* this is important to achieve, other than a vague notion that commitment is seen as impacting on subsequent implementation of the decisions taken in the Conference.

Nevertheless this is not an entirely unfounded claim. Whilst this importance of commitment is generally presented as an implicit, unsupported assumption in much of the Decision Conference literature, it is possible to locate some support for this notion in the motivation literature which draws links between the effect of goals on performance. More specifically relevant to this study is the recent research which indicates that goal commitment affects goal achievement. This will be discussed in more depth shortly.

In a 1991 study of implementation in Decision Conferencing, Dobson (1991) conducted 16 open-ended interviews with participants drawn from four different Decision Conferences. Dobson stated that while he felt the concept of commitment was important in that it was one of the major aims of Decision Conferencing, it was

difficult to investigate because there did not appear to be an acceptance of levels of commitment - people are either committed or not.

In Dobson's (1991) pilot study, people were asked, "Were you committed to implementing the action plan?", however as this question received little more than a 'yes' in response, it was discarded in the main study. There were no other specific questions on commitment. Despite this, Dobson stated that he believed there were four attributes of commitment i.e. acceptance, comprehension, satisfaction and confidence in the decisions made. Findings regarding the degree and nature of commitment were basically inferences based on semi related questions (Dobson 1991: 78).

This view that commitment may be measured in a one-dimensional fashion with a 'yes' or 'no' response is not shared in the wider literature regarding commitment (e.g. Hollenbeck, Williams & Klein 1989; Tubbs & Dahl 1991; Bobocel & Meyer 1994; Dooley & Fryxell 1999; Tubbs 1994).

This study therefore draws on literature from outside the Decision Conferencing field for a working definition of commitment. For example, in defining commitment Brehm & Cohen (1962: 7) state:

> We assume a person is committed when he has decided to do or not do a certain thing, when he has decided to do a certain thing, when he has chosen one (or more) alternatives and thereby rejected one (or more) alternatives, when he actually engages in a given behavior or has engaged in a given behavior. Any one or a combination of these behaviors can be considered a commitment.

This is similar to the following discussion of goal commitment from Hollenbeck & Klein (1987):

> Goal commitment, according to Locke et al (1981) refers to the determination to try for a goal. Commitment implies the extension of effort, over time, toward the accomplishment of an original goal and emphasises an unwillingness to abandon or to lower the original goal (Campion and Lord, 1992).
>
> (Hollenbeck & Klein 1987: 212)

This is consistent with Kiesler (1971). Whilst restating his earlier definition of commitment as a "pledging or binding of the individual to behavioural acts" (Kiesler & Sakumura 1966: 349) he further asserted that the *effect* of this commitment is to make the cognition representing the behavioral act more resistant to change. This

view is also supported by Janis and Mann (1977: 285) and Amason (1996: 125). This point is important in considering the significance of developing commitment. These interpretations fit with the general discussion of developing a commitment to act as outlined in the Decision Conferencing literature and thus form the basis for the definition of commitment within this study i.e. Commitment is defined as the extent to which the participant supports and feels responsible for the direction or action decided upon by the group. It also encompasses the extent to which the participant is willing to act on the decision.

It is worth noting that there are various degrees of commitment (Kiesler 1971; Janis & Mann 1977; Senge et al. 1996). In his discussion of the importance of developing a shared vision, Senge (1992: 219) discusses the seven levels of commitment as ranging from 'Apathy' through to true 'Commitment': a state of not only being enrolled (becoming part of something by choice) but feeling fully responsible for making the vision happen and then contrasts this with what he feels is the more common mode - compliance, of which there are several levels. Amason (1996: 125) argues that a decision requires more than compliance if it is to be successfully implemented:

> To effectively usher a decision through the complex web of operational details, team members must do much more than simply agree to or comply with the decision. They must both understand and commit to the decision if it is to be implemented effectively. These understandings and commitments are cultivated while the decision is being made.

As outlined above, an investigation of the Decision Conferencing literature failed to provide a clear validated measure of commitment to action in the context of Decision Conferencing. As a consequence a brief review of alternative measures of commitment including goal setting and decision choice has been incorporated into this study. Work in this area has been drawn on in developing the quantitative survey instrument used in this study and is discussed further in Chapter Three: Research Method and Design.

2.6.3.2 Generation of Commitment to Action

As noted earlier (e.g. Atkinson 1990), a key claim in the literature is that group discussion leads to shared understanding, then commitment to action. One of the

drivers of commitment is the public nature of the discussion amongst participants' peers and the cohesion that supposedly results from this (Atkinson and Marshall 1990: 23)

Adelman (1984) argues that by providing a mechanism for improving group discussion, this increases the probability not only of a more accurate final position, but one that is also more strongly supported by the group. Here he sees that a 'better' decision generates stronger commitment (Adelman 1984: 82). This view that an obviously better solution will assist in the generation of commitment is also discussed by Dobson (1991: 9-10) i.e.:

> Commitment is assumed to result from the fact that analytic process provides for full option definition and the obviously better solution will be demonstrated and therefore achieve commitment

De Reuck et al (e.g. de Reuck, Schmidenberg & Klass 2000a; de Reuck, Schmidenberg & Klass 2002; de Reuck, Schmidenberg & Klass 1999) also support this notion that improving the epistemic quality of the decision would enhance commitment, however the authors argue that computer modeling alone will not achieve this.

By far the most common assertion in the Decision Conferencing literature is the largely empirically unsupported claim that modeling leads to commitment. Phillips (1989e) clearly states:

> …the model plays a crucial part in generating commitment. All model inputs are generated by the participants and nothing is imposed, so that the final model is the creation of the group. The model is "owned" by the group, so its results are accepted, and participants buy in to the consequent action plan. In addition, the model allows the consequences of differences of opinion to be explored in ways that are inaccessible to word. Usually, the results are hardly affected by those differences, and when they are, substantial areas of agreement remain. The importance of this feature cannot be over emphasized, for the model permits individual judgments to differ even though agreement has been reached about actions. Thus each participant can preserve aspects of his or her individuality, while still committing to the collective best solution agreed by the group. Many groups fail because the inevitable conflict between individual identity and the group life is not managed well, with the result that destructive forces dominate the group and effective work cannot be accomplished without rigid controls that stifle dissent and creativity.
>
> (Phillips 1989e: 151)

Here Phillips sees that the inevitable tensions between the individual and the 'group life' can be quickly eliminated through redress to approaches such as sensitivity analysis, clearly demonstrating the best solution.

> The purposes of a Decision Conference is to generate a shared understanding of a problem and a commitment to action. This is achieved by creating a computer-based model which incorporates the differing perspectives of the participants in the group, then examining the implications of the model, changing it and trying out different assumptions. As actions are shown to be insensitive to differences of opinion, as new, more robust options are developed, and as higher-level perspectives emerge, participants develop a common understanding that facilitates agreement about what to do next.
>
> (Phillips 1990b: 147-148)

However as can be seen in the above and in the previous discussion regarding sensitivity analysis, it is not necessarily the modeling per se that is seen as leading directly to commitment, but rather that this is understood to occur via the shared understanding achieved as a result of the modeling and discussion this generates (e.g. Dobson 1991).

Phillips (1989e) states that the fact that a Decision Conference runs without a fixed agenda or prepared presentations and the interactive nature of the workshop enables participants to come to grips with the deeper issues and consequently help build consensus (Phillips 1989e: 151). As discussed earlier, the Decision Conferencing literature uses terms such as agreement, consensus and commitment interchangeably.

Commitment is also seen to be a result of participants' involvement in the intellectual process (Dobson 1991: 9-10). As Morgan (1992: 4-5) states, because they are fully involved in all stages of the analysis and thus in the growth of this understanding, the decision makers gain a strong commitment to the implementation of the decision. (Morgan, 1992: 4-5). Phillips (1989e) also identifies involvement as a factor contributing to the development of commitment to action in that where participants are selected to represent all key perspectives on the issues, the agreed actions are therefore unlikely to be stopped because a perspective wasn't included (Phillips 1989e). This is seen as a form of increased ownership and aligned with group cohesion contributes to an increase in the level of commitment.

As touched on earlier, commitment to act is also seen as partly attributable to the semi-public nature of the commitment. Dobson (1991) comments on this by stating:

> Commitment to action is increased by making the action plan clear and explicit; by making the action path irrevocable; by making the commitment process public (for example by eliciting verbal support from all members); by ensuring that the participants do not feel they were coerced into the decision.
>
> (Dobson 1991: 32)

Dobson employs Kiesler's (1971) and Salancik's (1977) definition of commitment (binding of the individual to behavioral acts) and states that is increased to the extent to which it is explicit, irrevocable, public and done freely (Dobson, 1991: 32). However, there is some questioned regarding whether this very public act is itself coercive given the various power structures at play in these decision-making groups (Jones & Roelofsma 2000; Whyte 1993).

Phillips (1990) also suggests that evidence concerning group process indicates that processes that are private and confidential reduce group cohesion and hence reduce, by extension, shared understanding and commitment to action (Phillips 1990; private conversation, in Atkinson & Marshall, 1990: 23). While this statement is not supported through examples or references to particular applications, there is some support for this in the wider social psychology literature. For example, Lewis (1952) introduced the idea of public commitment in his studies re changing eating habits (Locke & Latham 1990: 138). Salancik (1977) also argued that making a public commitment to a course of action binds one more strongly to the action than making it in private (Locke & Latham 1990: 138). Presumably this is because one does not want to project a lack of integrity or stability or to submit oneself to later embarrassment (Bandura 1986; Janis & Mann 1977). Several studies in the goal commitment literature also suggest that public commitment to goals has a greater effect than private commitment (Locke and Latham 1990: 138). However, this area has not been empirically explored in the Decision Conferencing literature.

The assumption of a group 'identity' in much of the Decision Conference literature (e.g. Phillips etc, based on the Tavistock view and discussed in de Reuck, Schmidenberg & Klass 1999: 197) also brings into question the authenticity of an assumption of shared understanding and consequently avowals of commitment. As de Reuck, Schmidenberg & Klass (1999: 198) state, such reification of a group mind then implies that the facilitator is required to interpret it. This is problematic in that it is possible that such an interpretation will differ considerably from individual

perspectives. Consequently, as de Reuck, Schmidenberg & Klass (1999: 198) observe:

> A real possibility then arises of a resistant readership which might remain silent about differing interpretations because of social constraints (even the high tech environment could be intimidating). The possibility of social compliance under conditions of coerced communication could well result in inauthentic avowals being made in support of the facilitator's interpretation (of the group mind). Here any 'shared understanding' reflects power plays rather than cogently derived, mutually supported conclusions.

Again the Decision Conferencing literature is silent on this issue.

As with shared understanding, the role of the facilitator is suggested by a proportion of writers in the field as impacting on the development of commitment to action. For example, Quaddus, Atkinson & Levy (1992) and Quaddus & Tung (2002) state that the facilitator must make use of the group dynamics to gain shared understanding and a commitment to action. Atkinson & Marshall (1990) also see the role of the facilitator as impacting here. However, on the whole the role of the facilitator is implied rather than directly discussed.

2.6.4 Summary

This section presented an overview of the aims of a Decision Conference i.e. to generate a shared understanding and a subsequent commitment to action. The role of computer modeling in developing shared understanding and commitment was also explored.

Based on this discussion it was shown that while these aims have become an accepted part of the practice of Decision Conferencing there is very little empirical evidence to support this.

The next section reviews the various research approaches evident within the GSS literature in general, then focuses on research in Decision Conferencing in particular.

2. 7 Research Approaches in GSS & Decision Conference Research

2.7.1 Predominant Approaches in Group Support Systems Research

This chapter has discussed the nature of Group Support Systems (GSS), placing Decision Conferencing within this broad framework and examined relevant issues to

arise from research in this field. This section builds on this understanding by providing an overview of the research approaches used in this area, identifying a gap not only in content (as demonstrated above) but also in method.

This study focuses on real participants making decisions that would impact on themselves as individuals and also on their community. As will become evident, in this it was unlike much of the pre-existing research in the GSS field in general and Decision Conferencing in particular.

2.7.2 A Brief Review of GSS Research Approaches to Date

Whilst there was very little published research into GSS prior to the 1980s, major research programs and technological change acted as a catalyst for strong growth, especially in the mid 1990s (Fjermestad & Hiltz 1998/99; Pervan 1998).

A review of research in GSS by Pervan (1998) drew on papers published in key IS journals between 1984 until the end of 1996. Applying an amended taxonomy from Alavi and Carlson (in Pervan 1998), publications were categorised as either Empirical or Non-Empirical and then further grouped according to the specific type of approach within the following subheadings:

Empirical

- Objects – e.g. studies that looked at classifying types or class of products
- Events/Processes – e.g. studies that focused on actual processes used or events that took place

Non - Empirical

- Conceptual Orientation – e.g. discussion regarding theoretical principles, presentation of conceptual models
- Illustrative – e.g. opinion and example or personal experience; descriptions of methods and applications
- Applied Concepts – conceptual frameworks and their applications

Of the 234 papers reviewed, 56% were classified as empirical with the remainder grouped as 'non-empirical; i.e. based on 'ideas, frameworks and speculation'. A further breakdown of these figures showed that the majority of the empirical studies focused on events/processes and were identified as experimental research in the laboratory. Data was generally quantitative. Only four of the 131 empirical papers evidenced an interpretive approach.

Fjermestad (1998/99: 230) further demonstrates the preponderance of experimental studies in GSS research in a paper where the sheer volume of experimental research indicates the popularity of this approach. Fjermestad (1998/99) summarized the methods and results of all experimental GSS studies published in the English language in refereed academic journals from 1982 to mid 1998. It found that over 200 controlled experiments had been published in 230 articles, with over 90% of these experiments using students as their subjects. The students were primarily undergraduates (73%).

Observing this emphasis on experimental studies and the use of students as subjects, Pervan (1998) noted the following:

> There is a clear need for more field work where studies involving actual stakeholders with their own problem(s) may reveal ways of improving technologies, methodologies and models, or suggesting where new approaches may be needed. Further, theory development has been limited and more conceptual work is needed along with empirical studies, which extend current theories, and previous research studies.

This in fact reinforces the call for a more pluralistic approach to Information Systems research raised by in the late 1980s and early 1990s (Galliers 1991; Galliers & Land 1987) and more recently by Eden (1995). As Kraemer (1988) noted, studies investigating the use of technology support for group decision making would gain a richer picture if conducted within an actual organisational setting.

The issue of research context is also discussed by Wilson (1977 in Marshall & Rossman 1989: 49) where he states:

> Human behaviour is significantly influenced by the setting in which it occurs; thus one must study that behaviour in situations. The physical setting - e.g. schedules, space, pay and rewards - and the internalised notions of norms, traditions, roles and values are crucial contextual variables. Research must be conducted in the setting where all the contextual variables are operating.

The key issue here is the importance of examining a contemporary phenomenon in its natural setting. This is seen as especially critical where the boundaries between the phenomenon and its context are unclear and is seen as a strong indicator for the use of the case study approach (De Vreede 1996: 27; Yin 1989: 23).

2.7.3 Research into Decision Conferencing

As indicated earlier, whilst never copious, research into Decision Conferencing appears to have tapered off even further during the late 1990s. This is contrary to trends identified in the broader GSS literature, but reflects the anecdotal evidence that those most interested tend to focus more on practice and application rather than on conducting theoretical or empirical research.

The research here also differs from that in the broader GSS research in that subjects tend to be actual organisations with real concerns to address rather than student groups. This again reflects the strong practitioner led nature of any work done in this field.

Empirical Studies

Empirical research in the area of Decision Conferencing is extremely limited and mostly based on practitioner experience and anecdotal evidence. Most of the existing empirical studies have encompassed the following approaches:

- conclusions drawn by practitioner/researchers based on their observations and experience and mining their own notes/records of past Decision Conferences – (Wooler 1987; Chun 1988a; Chun 1988b and Oldfield & Wooler 1988 in Phillips 1989d; Vari & Vecsenyi 1992; Kravatzky 1995; White 1991; Quaddus & Siddique 2001).

  For example, Phillips (1989d) discussed four studies conducted in the late 1980's, exploring how participants in Decision Conferences handled the issues they were dealing with. They believed that the handling of issues would differ, depending on the participant's level in the organisation. For the initial study (Wooler 1987 in Phillips 1989d) a data base of 45 Decision Conferences was created by coding information from:

  - notes taken during the Decision Conference
  - the Decision Conference report which was written after the meeting

- interviews with the facilitator

Phillips (1989d) stated that this first study confirmed the hypothesis. The key finding here was that senior executives restructure a model twice as frequently as do general managers.

Following this, Chun (1988a in Phillips 1989d) extended the sample database to 47 Decision Conferences and added some new variables.

Chun (1988a in Phillips 1989d) also did a follow up study examining the results from 12 Decision Conferences that used the same model type, but differed in the degree of threat expressed by the group in the discussion at the problem formulation stage. This was a subjective classification, assessed by the researcher on the basis of the comments made by the groups. For example, a "high threat group usually talked about loss of profits, declining market share, lack of competitiveness etc " (Phillips 1989d: 7). Chun concluded that high threat groups tend not to look at as many options or use as many criteria and may be convergent in their thinking.

- analysis of empirical findings of previous research (Pinsonneault & Kraemer 1989)
- application of a structured questionnaire (Oldfield 1987; Chun, 1988a; Chun 1988b; Ildfield and Wooler 1988 all in Phillips 1989d; McCartt & Rohrbaugh 1989; McCartt & Rohrbaugh 1990). See comments above for outcomes.
- in-depth interviewing of a total of 16 people drawn from 4 different Decision Conference (Dobson 1991)
- lab experiment – survey, pilot study (Dickson, Partridge & Robinson 1993); survey reviewing methods for eliciting additive weights from participants in Decision Conferencing (Cairns 1992)
- field experiments (1 study) - a small experimental field study involving 114 responses to a structured questionnaire; participants were drawn from a sample of 14 Decision Conferences (McCartt & Rohrbaugh 1989; McCartt & Rohrbaugh 1990)
- field study (3 studies)- a interpretive study involving in-depth interviews with 16 people from 4 different Decision Conferences (Dobson 1991); a field study by

(Reagan & Rohrbaugh 1990); a study of managerial openness to the success of GDSS was studied by analyzing a survey of participants in 26 decision conferences (McCartt & Rohrbaugh 1995)

- case study - Phillips 1988b; Phillips 1989e; Klass & Schmidenberg 1992c; Schuman & Rohrbaugh 1991a; Quaddus, Atkinson & Levy 1992

Note that none of the preceding studies explored the link between computer modeling, shared understanding and commitment.

A further example of research into Decision Conferencing has been primarily illustrative – not really research into the area, but rather discussions presenting the authors' opinions, personal experiences and descriptions of methods and applications of the process. This includes work by Adelman (1984); Atkinson & Marshall (1990); Galliers et al. (1991); Klass & Schmidenberg (1992b); Morgan (1992); Phillips (1980); Phillips (1983); Steeb & Johnston (1981); Phillips (1988a); Phillips (1989e) and Phillips (1990b). This also includes a review of group decision support systems (Finlay & Marples 1991).

Also as indicated in the preceding discussion in this chapter, recent work in the Decision Conferencing area has been more along a conceptual orientation, setting the grounds for future research. Examples here include the recent theory development work by de Reuck, Schmidenberg & Klass (1999); de Reuck, Schmidenberg & Klass (2000a) and de Reuck, Schmidenberg & Klass (2000b).

2.7.4 Theory Development

In recent years, Decision Conferencing has received more theoretical rather than empirical attention and this may be primarily attributed to three Decision Conference practitioners publishing in this area (de Reuck, Schmidenberg & Klass 2000a). In their discussion of the process of group communication and facilitation in which the modeling is embedded de Reuck, Schmidenberg & Klass (2000a) assert that the latter is seriously under- theorised and propose a process of social enquiry that allows the final decisions taken by the group to achieve the highest standard of quality possible for that group. The authors suggest a set of procedures that 'allows for the emergence of the best bet decision outcomes under conditions of maximum intellectual competition… the result is the most rational decision that *that* executive

group is capable of reaching at *that* time'. (de Reuck, Schmidenberg & Klass 2000a: 8).

2.7.5 Summary

Despite the strength of working with 'real groups on real issues', at the time of this study research into Decision Conferencing shared the lack of theory development observed by Pervan (1998: 142). Although theoretical perspectives put forward by de Reuck et al (e.g. de Reuck, Schmidenberg & Klass 1999; de Reuck, Schmidenberg & Klass 2000b; de Reuck, Schmidenberg & Klass 2000a) have partially addressed this, empirical support of these theoretical frameworks is yet to be acquired.

Another point is that many of the papers on Decision Conferencing are based on significant experience rather than as the outcome of a formalised study. In a common link between Decision Conferencing and GMB (discussed in the next section), this was also seen to be a major issue by Rouwette, Vennix & van Mullekom (2002) in their meta analysis of the literature on group model building.

2. 8 Other Group Model Building (GMB) Approaches

Prior to concluding this chapter there is one other research stream that is relevant to this study – Group Model Building (GMB). Whilst this field does not mention Decision Conferencing in particular there are many areas of commonality, so that it makes sense to draw this field in at least briefly to this discussion.

GMB essentially falls within the realm of System Dynamics, so that the models built often utilise quite different tools to those employed within Decision Conferencing, however many of the model building principles remain the same and the GMB literature shares the same stated goals i.e. that of achieving a shared understanding and a commitment to action (e.g. Akkermans & Vennix 1997; Rouwette, Vennix & van Mullekom 2002; Vennix, Akkermans & Rouwette 1996).

In this field, model building is increasingly seen as a method to both structure the debate and 'to create a learning environment' so that assumptions and strategic options can be surfaced and tested (Vennix, Akkermans & Rouwette 1996: 103).

As with Decision Conferencing, an important role of most System Dynamics modeling projects is to support strategic decision-making. However, also paralleling the Decision Conference experience, little is known about its effectiveness, apart from anecdotal evidence and statements by consultants that it works (Akkermans & Vennix 1997: 3). In an attempt to address this with respect to GMB, Akkermans and Vennix (1997) report on an assessment study of six group model-building projects. Since few tested theories were available for them to draw on, case studies and a qualitative research approach (observation and in-depth interviews) were used to shed more light on the effectiveness of group model-building projects in real organisations working on real strategic problems.

In five of the six cases, the GMB was seen as successful in terms of building insight, consensus and commitment, however there was no information included regarding the measures used for commitment or how it was defined. With regard to consensus and commitment, both were related to process and to quality of communication (Akkermans & Vennix 1997: 30).

An earlier study by Vennix, Akkermans & Rouwette (1996) described a qualitative modeling project where the primary goal was to establish consensus regarding the problem situation and commitment to the action necessary for change. The project was conducted with a group of mid-level managers of a company at the beginning of a period of organizational change. This group of managers engaged in a series of group model-building sessions, facilitated by the authors. Evaluation of the project results indicates that consensus and commitment with regard to the problem were established, but that the project was not successful in creating a full consensus on the course of action. While the questionnaire used was not included in this paper, it appears that the measure for commitment included the degree of :

- support for the conclusions of the project
- agreement that GMB leads to plans that will be loyally implemented
- agreement that they would communicate and defend the conclusions to others
- agreement with the suggestion that the conclusions would influence their future actions

(Vennix, Akkermans & Rouwette 1996: 49–50)

That is, when GMB is used to induce change, then merely changing knowledge about a problem is not sufficient to alter behaviour (Vennix, Akkermans & Rouwette 1996: 55). While commitment or intention to act is established, this was not at the level of concrete behaviour.

From this discussion it is evident that there are a significant number of commonalities between the issues raised in the GMB literature and that identified within the Decision Conference field. The two fields share common goals i.e. shared understanding and commitment, as well as similar problems with measurement of key concepts such as commitment, problems arising from assumptions made in terms of process and a lack of strong empirical evidence.

Having reviewed a number of articles in the GMB arena, Andersen, Richardson & Vennix (1997) make a statement that resonates with the discussion that has taken place in this chapter concerning the Decision Conferencing literature i.e.:

> …group model building is still more art than science. Research on the effects of group model building is scarce; it focuses on a wide variety of outcomes and variables, and research designs differ quite considerably. Instead of a solid research program creating replicable and cumulative results, we seem to have series of presumptions and hunches being repeated in a descriptive literature with little empirical evidence, certainly lacking any sense of competing propositions will repeatability of the claims being made (most often by the practitioners who are using the system intervention approach). The norm for research seems to be to posit an intuitively grounded hunch about what will work with the group and then to design a facilitation conference process around that hunch. If the interventions are successful (in the sense that paying clients like it and are willing to fund them being repeated), then the hunch is substantiated and the best intuitive practice continues. It seems that legends about what is working grow up around these interventions in what can only be described as superstitious behaviour.
>
> (Andersen, Richardson & Vennix 1997: 187)

While one would hesitate to call the current practice of Decision Conferencing as 'superstitious behaviour', the authors' call for a more focused and disciplined approach to research in the area would also apply here.

Given the extent of these shared concerns (e.g. Rouwette, Vennix & van Mullekom 2002; Vennix 1999; Vennix, Akkermans & Rouwette 1996; Andersen, Richardson & Vennix 1997; Akkermans & Vennix 1997; Richmond 1997), it may also be possible

that this research may also have some relevance for the broader field of GMB approaches.

2. 9 Conclusion

This chapter provided a review of the literature most relevant to this study and also acts as a more detailed source for the definitions of key concepts. In setting the stage for this study, the chapter began by briefly discussing the increasing complexity evident in organisational decision making and the associated growth in group decision making. While a full review of group decision making is outside the scope of this study, some of the more pertinent aspects were included to provide context for the research.

The chapter then went on to briefly review the group support systems (GSS) that have emerged to support these groups, then focused on the literature concerning the immediate area of interest, Decision Conferencing. Encompassed here was a definition of Decision Conferencing, an outline of the Decision Conferencing process and an exploration of its underlying theoretical base (i.e. Decision Analysis, Group Processes and Information Technology). Following on from this was a detailed investigation of the key aspects of Decision Conferencing i.e. computer modeling, shared understanding and commitment, all of which are central to this study. The chapter then presented an overview of the various research approaches in GSS and Decision Conferencing research and touched on the related area of Group Model Building.

Decision Conferencing is thus presented as a potentially useful process in aiding group decision making. It has also been shown that the process is based on critical assumptions regarding computer modeling, shared understanding and commitment and the inter-relationship of these concepts. As importantly, the literature review has revealed that the assumptions regarding these concepts are not sufficiently supported through empirical studies.

This study explores the central foundations of Decision Conferencing i.e. the role of computer modeling in developing a shared understanding and commitment to action and as has been shown here, this area has not been studied to date, so the focus of the study is of value.

This study therefore provides two primary benefits to researchers, practitioners and potential Decision Conference participants. Firstly the study explores the central foundations of Decision Conferencing i.e. the role of computer modeling in developing a shared understanding and commitment to action.

Secondly, the study explores this issue with regard to actual organisations with real issues to address and including contextual factors as an integral part of the analysis. This provides the basis for a more meaningful discussion of participant perceptions. Through this approach it is possible to understand not only what participants said about their experience, but also the specific circumstances applying to that case. From here, it is possible to make an assessment about the degree of transferability of the findings to other situations – something that is not possible in the previous studies discussed above. Given the number of areas of commonality, it is possible that this study may also contribute to the allied area of Group Model Building in System Dynamics.

Having presented a clear argument for the worth of the study, the next chapter presents the research approach designed to address this gap in the Decision Conferencing literature.

3 CHAPTER THREE: RESEARCH METHOD AND DESIGN

3. 1 Introduction

Prior to presenting the rationale for the research design and associated methods adopted within this study, this chapter first outlines the overall approach adopted. The research questions are then revisited, the implications for research design highlighted and links drawn with the conceptual foundations for this study. This includes an examination of the specific ontological and epistemological perspectives underlying this particular investigation and a brief discussion of the various research traditions related to Group Support Systems (GSS) in general and Decision Conferencing in particular, in order to place this study in context with existing work. An outline of the overall stages in the research design is then presented.

This is followed by a detailed description of the participants in the study, a comprehensive review of the data collection process and an examination of the methods of data analysis used to elicit the findings presented in Chapters Four to Six. The chapter closes with a discussion of possible limitations to the approach chosen, presentation of the proposed standards to use in evaluating research of the kind adopted in this study and touches on relevant ethical issues.

3. 2 An Overview of the Approach Adopted in this Study

In order to quickly familiarize the reader with the overall design, this section presents a snapshot of the study approach and a brief description of the participants. The aim here is to provide context for subsequent discussion regarding issues such as the conceptual foundation for the study, methodology, instrument development and data collection and analysis.

This study utilised a modified case study approach, incorporating both qualitative and quantitative data, however the research focus was on the in-depth exploration of the qualitative data. Each case was made up of a group of people who had participated in a Decision Conference sometime during the 12-month period preceding the data collection period. Data collection was conducted as follows:

Qualitative Data Collection

The semi structured in-depth interviews were undertaken with participants drawn from two Decision Conferences from separate local government organisations in the UK. In Case 1, interviews were conducted with 12 of the 13 participants involved in the Decision Conference. The remaining participant had not been involved in the whole Decision Conference and was therefore excluded from the study. In Case 2, interviews were conducted with 12 of the 14 participants involved in the Decision Conference. The other participants were not available for interview.

Quantitative Data Collection

Designed as an adjunct to the qualitative research, the quantitative survey instrument was completed by a total of 70 respondents, although missing items in two of these precluded them from the analysis. The respondents were drawn from 7 Decision Conference across six organisations. The number of individuals in each Decision Conference varied from 6 individuals to over 20. The organisations were all public sector organizations in the UK. All of the Decision Conferences followed a similar structure and process and all except one involved strategic resource allocation using the EQUITY™ resource allocation software. The exception was a strategic choice situation, which used the HiVIEW™ software.

Each facet of the above research, from the rationale for choice of design and method, including selection of respondents through to the data collection and analytical approaches adopted, is covered within this chapter.

3. 3 Conceptual Issues

3.3.1 The Research Questions and their Methodological Implications

In the discussion of the Decision Conferencing literature presented in Chapter Two, it was noted that whilst the hypothesized relationships between modeling, shared understanding and commitment form the basic justification for Decision Conferencing, only anecdotal evidence supports these claims. It is also apparent in the literature that consistent definitions of the terms “shared understanding” and “commitment to action” are lacking. Shared understanding has been variously described as a shared perspective of key issues (Phillips 1989e); a common understanding or perception of the problem (Schuman & Rohrbaugh 1991a; Thierauf

1989) and the development of an understanding by participants of other group members' positions regarding the issue(s) being addressed (Klass & Schmidenberg 1992c; Dobson 1991; de Reuck, Schmidenberg & Klass 2000a). Furthermore, an explicit discussion of what is meant by commitment - and particularly commitment to action - is also largely absent from the Decision Conferencing literature. These are all critical factors, given that they form the central tenants for the justification of the practice of Decision Conferencing. It was in order to address these gaps that the following question was developed:

> ***To what extent is the modeling process perceived by participants as leading to the development of a shared understanding and commitment to action in the application of Decision Conferencing?***

As indicated in the introductory chapter, this lead to the following sub-questions regarding the Decision Conferencing process:

III. The Modeling Process and Shared Understanding from a participant's perspective
   - A. Is the Modeling process perceived by participants as generating a Shared Understanding of the issue(s) to be addressed?
   - B. What is the perceived relationship between the key aspects of the modeling process and the development of a Shared Understanding?

IV. The Modeling Process and Commitment to Action from a participant perspective
   - A. Is the Modeling process perceived by participants as generating a Commitment to Action?
   - B. What is the perceived relationship between the key aspects of the modeling process and the development of Commitment to Action?
   - C. What is the perceived relationship between Shared Understanding and Commitment to Action?

In seeking to address these questions, a firmly pragmatic approach was adopted in line with Patton's (1990) belief that the selection and application of methods should be based on practical need rather than whether it aligns with any particular philosophical paradigm i.e.

> Rather than believing that one must choose to align with one paradigm or another, I advocate a paradigm of choices. A paradigm of choices rejects methodological orthodoxy in favor of *methodological appropriateness* as the primary criterion for judging methodological quality. The issue then becomes…whether one has made sensible methods decisions given the purpose of the inquiry, the questions being investigated, and the resources available.
>
> (Patton 1990: 38-39)

This view that appropriateness rather than orthodoxy should act as the key criteria in deciding on methodology is also strongly propounded by Toulmin (1983) in Potter (1992) and Firestone (1990) as well as Patton (1990). Otherwise termed 'paradigm relativism', methodological decisions here are guided by the aims of the research rather than deference to any particular worldview (Richardt & Rallis 1994; Patton 1990; House 1994).

In considering the most appropriate research design and methods to address the research questions, it became evident that whilst a quantitative survey of participants in Decision Conferences may have been sufficient to address questions I A and I B, it would not have provided the participants' perspective of what is meant by the various terms, or of their perceptions regarding the relationship, if any, between the various constructs (questions I B; II B, C). An additional consideration was the importance that context plays in providing an understanding of people's perspectives and experiences (Creswell 1994; Creswell 1998; Manning 1997; Eisenhardt 1989; Neuman 2003; Marshall & Rossman 1995). As the whole focus of this study was on gaining an understanding both of the meanings these terms hold for participants as well as the perceived interrelationships, the study therefore demanded an approach that was suited to a deeper investigation of the issues. Consequently, the methodological implications of this quest for meaning included:

- the data collection needed to be conducted in such a way that it would be possible to not only tell whether or not participants felt a shared understanding and commitment were achieved and whether it was as a consequence of the computer modeling, but also what participants meant by these terms, whether and in what ways these factors were interrelated and whether in fact there were other previously unknown factors impacting on this whole process
- there needed to be an opportunity to explore issues and beliefs that may not have been initially evident based on the literature

- the participants needed to be part of a 'real' group i.e. formed by the organisation to address a 'real' issue and not constructed solely for the purpose of this research
- only by studying the groups who had actually participated in a real Decision Conference could any contextually sensitive insights be gained

Given the complexity of this task, the inquiry process therefore necessitated an exploratory and in-depth methodology if it was to achieve understanding, or *verstehen* as it is sometimes termed (e.g. Creswell 1994; Weiss 1994; Manning 1997). All of the methodological implications discussed earlier also indicated that a primarily qualitative study would thus be the appropriate choice.

The use of qualitative methods is appropriate where the research problem needs to be explored, variables are largely unknown, the researcher wants to focus on the context that may shape the understanding of the phenomenon being studied and the area lacks a literature base on which to guide the study (Chenail 2000; Creswell 1998; Creswell 1994; Potter 1996; Patton 1999; Weiss 1994; Symon & Cassell 1998; Neuman 2003; Marshall & Rossman 1995). Also as a consequence of the paucity of directly relevant literature and the psychological, situational and interpretive nature of the research questions, exclusive use of a more deductive, deterministic approach was precluded (Lincoln & Guba 1985b). Despite this, it was felt that quantitative data could potentially add another layer of meaning to the research, enhancing understanding of the issues. This mixed method approach was also seen as potentially providing a means of triangulating the findings.

While critics of the mixed method approach argue that research of this kind merely represents "mixed-up" approaches deficient in paradigmatic or theoretical grounding (Datta 1994: 59), adherents consider this argument an abstraction that does not detract from the usefulness of mixed method designs (Mactavish & Schleien 2000). Tashakkori (1998) argue that greater coherence and clarity in mixed method research will go some way to address this problem and is a device adopted in this study. Other researchers who also support the use of mixed methods include Shepard et al. (2002); Loosemore (1998); Pernice (1996); Gioia, Donellon & Sims Jnr (1989); Gliner & Harmon (1999); Smith (1983) and Bryman (1988), although the emphasis shifts depending on the research question. Bryman (1988: 127-156) argues that

"when qualitative and quantitative research are jointly pursued much more complete accounts of social reality can ensue." A strong argument for the use of mixed methods in IS research is also presented by Trauth & Jessup (2000).

A mixed method study was therefore undertaken, utilising both qualitative and quantitative data to explore the issues raised in the research questions. The primary focus was on the use of qualitative research methods due to the need to develop a deeper understanding of the Decision Conference process, particularly in relationship to the interconnections as outlined in the research questions.

3.3.2 Which Approaches to Use?

Having determined that the most appropriate approach would be a mixed method with a focus on the use of qualitative data, the next step was to determine exactly which approaches to use to collect the information.

One of the criticisms of research into the GSS field and to the related area of management has been the lack of rigor and critical reflection (Macdonald & Simpson 1997). One aspect of this criticism was the placement of 'convenience before scholarship' with regard to the choice of subjects in research, where a 1995 review of management research published in leading management journals revealed that almost a third of the studies relied solely on student populations (Macdonald & Simpson 1997: 7). With specific reference to GDSS, Eden (1992) also criticises the use of students as subjects, stating:

> If the system is designed specifically to address real groups (with a history and a future) working on complex issues, then it is no use taking out those very characteristics that make it complex in order to control experiments. Research with students using structured problems will say absolutely nothing about the performance of a GDSS in relation to its designed aims. As Checkland put it: "Methodology can be tested only in conjunction with a problem to which it is applied" (1981, p.242), and the problem will always be complex".
>
> (Eden 1992: 212)

Thus, in order to partially respond to this problem of relevance and to clearly address the research question in a manner commensurate with the paradigm guiding this study, the most relevant choice of research subjects was real organisations with real issues to address. Whilst there is some acknowledgement that seen from a Realist

point of view there is potential for bias in selecting a sample in this way, Eden's comments are relevant here:

> Real clients of a GDSS are always a biased sample, but that does not matter. A GDSS should have declared boundaries to its use and therefore will only be used by a biased sample of the total possible universe, but an unbiased sample in relation to purpose.
>
> (Eden 1992: 214-215)

As a result, a modified case study approach was adopted. Yin (1988) defines a case study as:

> ..an empirical study that investigates a contemporary phenomenon within its real-life context; when the boundaries between the phenomenon and context are not clearly evident; and in which multiple sources of evidence are used.
>
> (Yin 1988: 23)

Burns (1990) lists six reasons for utilising case studies. Firstly, as case studies tend to generate rich data that may suggest themes for broader inquiries, they are valuable as preliminaries to major investigations. Secondly, since case studies 'have the aim of probing deeply and analysing intensively' (Burns 1990: 366) the intricate details of the phenomena under study, and then generalisations may be possible. Thirdly, anecdotal evidence that is generated within case studies can illustrate general findings. Fourthly, case studies may serve to refute generalisations. Fifthly, a case study approach is preferred when germane behaviours cannot be manipulated. Finally, a case study may be the optimum description of a unique historical event.

Within this study, there was indeed the potential for the research to act as a catalyst for a broader inquiry. The in-depth interviews promised to provide a rich source of data to support readings and possible generalisations arising from the data analysis. Additionally, it was not possible – or desirable – to manipulate the behaviours of the Decision Conference participants as would be required for an experimental study. Critically, the study also had the potential to refute the generalisations about the role of modeling, shared understanding and commitment in the Decision Conferencing process. Thus the project fitted at least five of Burns' (1990) suggested reasons for carrying out case study research.

Furthermore, a Collective Case Study approach was implemented in that a limited number of cases were examined to explore the research question. The key point of

this approach is that whilst balance and variety are important; the opportunity to learn is of primary importance. As Eysenck (1976) comments:

> We simply have to keep our eyes open and look carefully at individual cases - not in the hope of proving anything, but rather in the hope of learning something.
>
> (Eysenck, 1976 in Kuper & Kuper 1985: 95)

This is a similar view to that expressed by Morse (1994) in his discussion of Critical Case Sampling, which once again focuses on the selection of cases with the most to offer. Bryman (1988) notes that the addition of even one extra case has produced benefits in a number of studies. Miles & Huberman (1994) also discuss the use of multiple cases, which they call Cross-Case Analysis. Whilst raising the difficulty of reconciling the particular with the universal inherent in this approach, they also recognise the benefits of this approach (e.g. extend external validity and identify configurations that hold in some cases, but not others). Also, as Neuman (2000: 33) notes:

> Case study research [raises] questions about the boundaries and defining characteristics of case. Such questions help in the generation of new thinking and theory.

This view is also supported by Eisenhardt (1989) who comments that this research approach is particularly appropriate in new or undeveloped topic areas. The case study seeks to understand the matter being investigated, where understand is used in the 'phenomenological or hermeneutic sense' (Gable 1994: 113). Case studies also allow a researcher to 'reveal the multiplicity of factors [which] have interacted to produce the unique character of the entity that is the subject of study' (Yin 1988: 82). The subsequent generation of potentially new insights was therefore one of the key drivers for adoption of this approach.

A case is defined in this study as the group of participants from an organisation who jointly participated in a specified Decision Conference.

3.3.3 Data Collection Techniques – An Overview

Having determined that the most suitable approach was to focus on specific cases, the next issue was to determine the specific, relevant data collection techniques to utilise as even within case studies there are numerous options to choose from. Some examples include: in-depth interviews, participant observation, journals, analysis of

public documents, focus group interviews and videos of particular experiences (Creswell 1994: 149; Marshall & Rossman 1995: 78-97). The aims of the research were the primary drivers in the decision regarding the type of data collection approach to adopt. Inherent within the stated aims of this research - focusing on the perception of the impact of the modeling process on shared understanding and commitment in Decision Conferencing - was the need to develop detailed descriptions regarding participant perceptions, to describe the process, learn how participants interpreted the events and to integrate a number of different perspectives. As indicated earlier, all of these factors are cited by Weiss (1994: 9-10) as reasons for conducting qualitative studies in general and in-depth interviewing in particular.

Thus the approach selected here was the semi-structured in-depth interview. As King (1994) notes:

> The goal of any qualitative interview is … to see the research topic from the perspective of the interviewee, and to understand how and why he or she comes to this particular perspective.
>
> (King 1994: 14)

This is precisely the rationale for the adoption of this approach in this study. In addition the in-depth interview has a number of strengths including:

- interviewing is a useful way to gather large amounts of data quickly (Marshall & Rossman 1995: 80)
- it enables a focus on the meaning of particular phenomenon to the participants (King 1994: 16)
- sometimes interviewing is the only means whereby one can get access to certain information – there are many things people are unlikely to put in writing but are willing to tell someone in confidence (Macdonald 1997: 8-10)
- interviewing also offers the potential for the addition of realism to a study. It takes place in real time, allows interaction between the researcher and the interviewee, permitting the continuous reappraisal of both questions and answers (Macdonald 1997: 8-10)
- through obtaining detailed personal perspectives that can be quoted directly, interviewing provides a powerful means of conveying information to the

intended audience. In this case, this would include theoreticians, practitioners and potential future Decision Conference participants (Macdonald 1997: 8-10)

- it can act to inform concurrent or subsequent quantitative studies (Gable 1994: 123)

Following are the possible limitations of the in-depth interview process applied in this study, adapted from Macdonald (1997: 10-22):

- possible limited transferability to other contexts – although this is more of an inherent quality of the research paradigm than that of the interview process per se
- aggregation and integration of information (e.g. there may be a great deal of conflict between various interviews) - but this richness could also be seen as a positive element of the interview
- selecting specific examples (e.g. quotes) may appear biased (they are necessarily selective)
- problems in mixing different sources of information. For example, interviews plus external information about the company which may jeopardize confidentiality or a report on a workshop versus the participants' stated perceptions of what occurred

Some of these limitations are also addressed further in Section 3-11: Limitations. However, despite these restrictions it was felt that the benefits of the interview process outweighed the perceived costs in addressing the research question. As Weiss (1994: 3) notes, in choosing an in-depth interview approach:

> ..we gain in coherence, depth and density of the material each respondent provides. We permit ourselves to be informed as we cannot be by brief answers to survey items. The report we ultimately write can provide readers with a fuller understanding of the experiences of our respondents.

As a result of this, in-depth face-to-face interviewing was selected as the primary data collection technique. In some ways, this approach reflected Kahn's "Conversation with a purpose" (Kahn & Cannell 1957: 149), where the researcher explores a few general topics to help uncover the participant's perspectives, but otherwise respects how the participant frames and structures the responses. The

purpose of the semi structured, face-to-face interview was to gain valid and reliable information.

However, selecting this approach does not preclude using additional methods of data collection (Weiss 1994). In addition to the interviews, a structured self-complete quantitative survey was also developed.

The process involved in the development of both the interview guide and the survey instrument is covered in detail in Section 3. 6: Development of Interview Guide and Survey Instrument.

The following sub-section builds on this discussion regarding research design, by reviewing the predominant approaches in the GSS field in general and Decision Conferencing in particular.

3.3.4 Predominant Approaches in Group Support Systems and Decision Conferencing Research

Chapter Two (Literature Review) discussed the nature of Group Support Systems (GSS), placing Decision Conferencing within this broad framework and examined relevant issues to arise from research in this field. The predominant research approaches evident in the GSS research were also discussed in Chapter Two, therefore only a brief summary is provided here, reinforcing the point that a gap has been identified not only in the content of the existing Decision Conferencing literature, but also in the methods adopted in researching this area.

With regard to GSS research in general, while there is strong growth in research in this area, work conducted by Pervan (1988) and Fjermestad & Hiltz (1998/99) strongly demonstrated the preponderance of experimental studies with the majority using students as their subjects. This has led to a call for a more contextual, pluralistic approach by a number of researchers (e.g. Galliers & Land 1987; Pervan 1998; Eden 1995; De Vreede 1996).

Also discussed in detail in Chapter Two: Literature Review, the published research demonstrates significant gaps in both content and use of appropriate method to explore critical issues in Decision Conferencing. While the Decision Conferencing research does in general focus on actual organisations with real concerns to address rather than student groups, overall the empirical research in the area of Decision

Conferencing is still extremely limited and mostly based on practitioner experience and anecdotal evidence. The fact that most of the research is practitioner led is perhaps one of the primary reasons behind the paucity of published work in this field.

Rather than revisit the discussion regarding the nature of the research, which was covered in Chapter Two, the point is reinforced here that based on the research published to date this study provides two primary benefits to researchers, practitioners and potential Decision Conference participants. Firstly the study explores the central foundations of Decision Conferencing i.e. the role of computer modeling in developing a shared understanding and commitment to action – an essentially unexplored and central tenet of the Decision Conferencing process. Secondly, the study explores this issue with regard to actual organisations with real issues to address and including contextual factors as an integral part of the mixed method analysis. As noted, this allows for an in-depth exploration of the issues, making it possible to make an assessment regarding the degree of transferability of the findings to other situations.

Finally, the overall research design in the study is one that contributes to qualitative research generally, by applying a unique methodology to explore the qualitative data in relation to the research question. This last point is more evident on reviewing the remainder of this chapter (especially Section 3. 8 Qualitative Data Analysis – The Face to Face Interviews).

3.3.5 Conceptual Foundations for this Study

Taking into account the discussion so far, the study may therefore be broadly described as an interpretive approach where, ontologically, realities are regarded as multiple and constructed by the participants *but not to the extent that this excludes* the development of at least some degree of shared meaning. This ontological view perhaps comes closest to the position of *Actionalism* (Potter 1996: 37-38), a broadly Idealist position (Smith 1983: 8-9), where people are believed to be subject to situational forces outside of their control, but that they are 'active agents' also able to make choices (Potter 1996). This notion of standards and their role in this study is explored further in Section 10: Principles for the Conduct & Evaluation of this Study.

With regard to epistemology, the researcher's position is one of *Intersubjectivity.* In adopting this position, the author is taking the view that:

> .. researchers can never be purely objective, but they are not limited to pure subjectivity either. It is possible for several researchers to perceive the same thing, to arrive at the same meaning, but it is also possible for several researchers to have different interpretations. When this occurs it is possible to apply certain accepted standards to determine the relative values of the interpretations.
>
> (Potter 1996: 42)

Table 3-1 below places this ontological and epistemological position in the context of the continuum as presented by (Potter 1996: 37).

Table 3-1 Ontological & Epistemological Continuum

The Major Points of Thinking across these Continuums as Adopted in this Study

The Ontological Continuum				
Idealism			Materialism	
Solipsism	Idiographic Idealism	Actionalism	Dialectical Materialism	Mechanistic Materialism
The Epistemological Continuum				
Constructivism			Realism	
Pure Subjectivity		Intersubjectivity		Pure Objectivity

(Potter 1996: 37)

As can be seen here, *Intersubjectivity* is the middle ground where it is believed that while researchers are never purely objective (Realism), nor are they limited to pure subjectivity (Constructivism). It is possible to reach a shared perspective. This is a view also supported by Poland (1995: 295) and Neuman (2000) and partially reflected by both Altheide & Johnson (1994) in their 'analytic realism' and Hammersley's 'subtle realism' (in Poland 1995).

This view that a degree of objectivity can be achieved within a structured framework is also supported by Phillips (1990a) who sees that the crucial element here for the objectivity of any inquiry - qualitative or quantitative - "is the critical spirit in which it has been carried out". As Klein & Myers (1999: 68) state:

> While we agree that interpretive research does not subscribe to the idea that a pre-determined set of criteria can be applied in a mechanistic way, it does not follow that there are no standards at all

> by which interpretive research can be judged…We believe that it is better to have some principles than none at all, since the absence of any criteria increases the risk that interpretive work will continue to be judged inappropriately.

Klein & Myers (1999) then go on to outline a set of seven principles for the evaluation of interpretive field studies. It is these principles, which have been utilised in evaluating this study. These are outlined in Section 3-10 Principles for the Conduct and Evaluation of this Study.

This philosophical perspective which forms the basis for this study is closely aligned to that outlined by Potter (1996: vii) and is based on the following four premises:

Premise 1: There is a material reality that exists apart from our interpretation of it.

Premise 2: This phenomenon may never be experienced directly or completely because (a) our conduits of information (the five senses) are limited, and (b) the way we make meaning from the raw sense data is subjective. As a result of this there will always be a range of interpretations, however this does not mean that intersubjectivity cannot be achieved (thus this is not a purely Constructivist perspective).

Premise 3: All scholarship is necessarily composed of a blend of speculation and empiricism. In the speculation phase, an interpretation of the phenomena is constructed. In the empirical phase, observed characteristics about the phenomenon are cited to illustrate and support the interpretation.

Premise 4: Among the various interpretations of a phenomenon, some are better than others; not all are equally useful i.e. have equal utility. In this context (Potter, 1996) states that:

> Useful scholarship accounts for what is known and either (a) extends the reader's knowledge of the topic, and/or (b) presents the reader with some intriguing new way to look at the phenomenon.

The rhetoric of the study has more to do with terms such as *understanding, meaning and discover.* The axiological assumption is that the researcher needs to approach the investigation with an open mind; that context is critical and while it is important to strive to understand the participants' perspectives, values are inherent in the analysis. Methodologically, inductive logic prevails. As Creswell (1994: 2) notes,

> The inquiry process here is based on building a complex, holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting."

The research problem is particularly suited to this paradigm in that the concept is "immature" (Morse, 1991 in Creswell, 1993: 147) due to a lack of specific theory and previous research. This approach, with its objective of revealing the participant's views of reality (Lather 1992; Robottom & Hart 1993) allowed the understandings and motivation for actions of the participants to be elicited (LeCompte & Goetz 1982; Borg, Gall & Gall 1993).

As discussed earlier, this perspective necessarily impacted on all aspects of the research, from research design, including data collection and analysis, through to the determination of standards on which the research may be evaluated.

3.3.6 The Research Design in this Study – An Overview

Taking all of the preceding discussion into account, Table 3-2 provides a summary of the major stages associated with the research design outlined in this chapter.

Table 3-2 Research Stages
Research Stages (table format adapted from Atkinson 1996: 118).

Familiarisation
- Background reading in the Decision Conferencing area and associated literature
- Observe Decision Conferences
- Background Reading on research paradigm and method

Development of research question
- Discussion with Decision Conference practitioners
- Literature Review

Choice of relevant research design and method
- Literature Review

Interview Guide (Qualitative) & Survey Instrument (Quantitative) Development
- Literature Review
- Discussion with Decision Conference facilitators

The Pilot Study and subsequent re-evaluation of research design
- Pilot Study
- Lessons learnt to inform field work, interview guide and survey design

Preliminary field work prior to the interviews
- Discussion with Decision Conference facilitator(s)
- Read final Decision Conference report and any available support documentation for each organisation where available
- Gather background information on the organisation
- Tailor interview guide as required

Field Work and Data Collection
- Informal interviews with facilitator(s)
- Review Decision Conference documentation
- Interview each participant in the Decision Conference for Case 1 and Case 2
- Completion of quantitative survey by participants in Case 1 and Case 2 and from an additional 5 Decision Conferences

Analysis
- Transcription, mapping, coding and analysis of individual participant interviews (Case 1 and Case 2)
- Amalgamation, mapping, coding and analysis of group experience (Case 1 & Case 2)
- Coding and analysis of survey data

Conceptualization of salient issues
- From both the literature and the data from this research

Discussion & Conclusions
- Developed discussion of key issues
- Developed conclusions

Completion
- Write up of dissertation

---

3. 4 The Pilot Study

In order to evaluate the proposed research design a pilot study was conducted. The organisation involved in the pilot study was a small Government Agency with two quite geographically disparate branch offices. There were 13 participants in the study, consisting of two Board members and eleven employees from various levels in the organisation. In many ways both the context and mix of participants reflected the composition of intended participants for the full study.

Face to face open-ended interviews were conducted with each of the participants three weeks after the Decision Conference. Each lasted approximately one hour. Participants were also asked to complete a structured questionnaire on the day of the

interview. Participation was voluntary and had been agreed to prior to the conference.

Key issues arising from the pilot study included:

- the need for a stronger focus on issues relating directly to the research question
- the importance of being seen as independent to both the participants' organisation and the external service provider (i.e. the Decision Conference facilitator and analyst)
- more careful consideration of what it was that the participants were supposedly committed to
- the need for a clearer definition of the key constructs (e.g. commitment to action, shared understanding and modeling)
- the grueling nature of in-depth interviewing and thus the importance of allowing sufficient time not only for discussion but also rest and reflection for the researcher between interviews
- the time consuming nature of primarily qualitative research in terms of transcription and making sense of the large volume of data generated

As far as was possible, these issues were reflected in the revised research design presented in this chapter.

3. 5 Participants in the Study

Given that this was a field study focusing on actual organisations with real issues to address, this study needed to take place wherever the actual Decision Conferences occurred. While Curtin University of Technology is also involved in running Decision Conferences, to avoid unnecessary biasing of the results it was considered desirable to explore the research questions with organisations that had no previous contact either with the researcher or with Curtin. Contact was therefore made with a consulting firm in the UK that ran Decision Conferences for their clients. The consulting firm approached a number of their clients and arranged access for this research.

Data collection involved traveling to a number of locations across the north of England, including the offices of people who participated in Decision Conferences facilitated by the consulting firm. An organisation was eligible for inclusion where:

- it was possible to contact the majority of the participants from the Decision Conference
- the majority of participants in a particular Decision Conference were willing to be interviewed and/or to complete the survey instrument
- the Decision Conference had taken place some time during the previous 12 months

It was thought that a 12-month period would be recent enough to ensure that participants would be able to recall the events which transpired, yet would also allow a sufficient number of interviews to be conducted within the time constraints inherent in a PhD study. In the end, the data collection occurred within 5 months for all except one of the Decision Conferences. The exception was within 8 months. This issue of time is discussed further in Section 3-11: Limitations. Documentary evidence of what had transpired during the Decision Conference was also collected and was available as a prompt for participants if required.

Following is a more detailed description of participants involved in the various aspects of this study i.e.:

- Case 1 – qualitative (12 participants)
- Case 2 – qualitative (12 participants)
- the quantitative survey instrument – quantitative (70 participants)

3.5.1 Participants – Case 1

Case 1 is a large council in the north of England. The Council is made up of elected Councilors (sometimes referred to as Members), who make the policies which determine how the Council is run, and non-elected Officers - professional people like planners, accountants, leisure development specialists and environmental health Officers - who put those decisions into effect.

At the time of the data collection the Council was a complex organisation made up of four distinct party political groups, with no one faction controlling the balance of power. There were approximately 63 Councilors on the Council.

The Council was faced with the need to drastically reduce spending over the next three years. It was anticipated that there would be initial cuts of up to £3.5m in 1998/99, progressing to £10m by 2001. The Council therefore needed to put together a budget that would achieve this, yet would also be broadly acceptable to the various political groups that made up the Council.

In the past, Council made these sorts of budget decisions through a complex process of Party Group consultations and negotiations between members. Officers had significant input to the process as they prepared the various budgets in consultation with the elected members.

However, rather than rely on their usual processes to try and achieve a workable program in a short period of time, the Council decided to commission a Decision Conference to be run by an external service provider (ESP). It is important to note that previous Decision Conference sessions had been run only with Officers present.

Interviews were conducted with 12 of the 13 participants involved in the Decision Conference. Two participants were not available for interview. Seven of these people were Members of the Council (primarily Party Leaders and Heads of Finance) and the other 5 were Officers (Social Services departmental employees). The Officers included the Director and the Assistant Director of Social Services and Chief Officers. The remaining Decision Conference participant (also an employee) was not involved for the full day and therefore not included in the study. Each of the major political groups was represented in the Decision Conference.

In addition to the above participants there were a number of Service Managers who sat in as observers and had no active role in the process.

3.5.2 Participants – Case 2

The second case is another large council in the north of England. Once again, the Council is made up of elected Councilors (sometimes referred to as Members), who make the policies that determine how the Council is run, and non-elected Officers who put those decisions into effect.

At the time of the data collection, the Council was a complex organisation made up of four distinct party political groups: Labor, Liberal, Independents and Conservatives. An alliance between the Labor group and the Liberals provided these two parties with the balance of power.

There were 46 Councilors with approximately £1.4M to allocate toward a capital works program. The Council's usual route for resource allocation such as this was based on a structured committee process. Officers had a significant role to play as they prepared the budgets in consultation with the elected members although they had no part in the final decision making.

Rather than rely once again on these usually lengthy processes of committee meetings and consultations to try and achieve a workable program of expenditure, the Council decided to commission a Decision Conference. The Decision Conference was run by an external service provider (ESP). Some of the participants had previous experience of the Decision Conferencing process. The Decision Conference was run over two days.

Interviews were conducted with 12 of the 14 participants involved in the Decision Conference. Two participants were not available for interview. Five of those interviewed were Members of the Council and the other seven were Chief Officers (Council employees). Participants in the Decision Conference included the Council's management team i.e. the Chief Officers together with the Chairs of all the service committees and the Leaders of the two largest political groups, Labor and Liberal.

As indicated earlier, at the time of the Decision Conference Labor and Liberal were operating in tandem to manage the administration (a hung Council). As a consequence, while both of the major political groups were represented in the Decision Conference, there were no representatives included from either the Independents or the Conservatives.

3.5.3 Respondents – Quantitative Survey Instrument

Designed as an adjunct to the qualitative research, the quantitative survey instrument was completed by a total of 70 respondents, although missing items in two of these precluded them from the analysis. The respondents were drawn from 7 Decision Conferences across six organisations. The number of individuals in each Decision

Conference varied from 6 individuals to over 20. The organisations were all public sector organizations in the UK. All of the Decision Conferences followed a similar structure and process and all except one involved strategic resource allocation using the EQUITY™ resource allocation software (with the one exception being a strategic choice situation which used the HiVIEW™ software). Additional information regarding participants is included in subsequent chapters focusing on the findings from this study.

3. 6 Development of Interview Guide & Survey Instrument

This section outlines the process involved in the development of the qualitative interview guide and presents a detailed discussion of the development of the quantitative survey instrument, as well as the various constructs that made up the survey.

3.6.1 Development of the Interview Guide

In determining exactly what questions should be asked, the following proved to be important considerations (Weiss 1994: 41)

1. The problem
2. A sense of the breadth and density of the material required
3. A repertoire of understandings based on previous work, study, awareness of the literature and experience in living
4. Pilot Research
5. A sense of what would give substance to the eventual report

Similar prompts were used in each of the interviews to facilitate comparisons between participants' responses (Neuman 2000). Questions were open-ended with probes to elicit further information and enough flexibility to explore relevant issues as they arose. Refer to Appendix B for a copy of the Qualitative Interview Guide.

3.6.2 Development of the Survey Instrument

As indicated in the preceding section, quantitative data collection consisted of 70 structured self-complete questionnaires over an 8-week period. As noted earlier, the respondents were drawn from 7 Decision Conference across six organisations. The

focus for the quantitative data collection was the central concepts of commitment and shared understanding and possible links with computer modeling. Gathering of the quantitative data was largely seen as an opportunity to inform the main study, which focused on the qualitative data analysis.

The questionnaire had three parts. Each was given to the person for completion and collected before moving on to the next part. As each part was handed to the participant, there was a brief discussion regarding the content of the questionnaire and some clarification of the key concepts i.e. outcome and computer modeling. The three parts were as follows:

Part A (1 side A4 sheet):	Mostly a measure of commitment to outcomes **directly after** the Decision Conference (participants needed to try and recall how they felt at that time).
Part B (1 side A4 sheet):	Almost identical to the above although the questions changed tense. Mostly a measure of commitment to outcomes **at the time of the interview.**
Part C (1 double sided A4):	General questions re the Decision Conference and focused on computer modeling as it related to shared understanding and commitment

Outlined below are the various sources drawn on in order to develop the quantitative survey instrument. As indicated in the discussion of commitment in Chapter Two: Literature Review, while commitment is often discussed in the Decision Conferencing literature, no validated measures were presented. The next section will therefore discuss, in more detail, how this measurement problem was addressed for the purposes of this study.

The quantitative survey instrument was constructed from literature concerning:

- *goal commitment* (9-item measure Hollenbeck, Williams & Klein 1989)
- *commitment to choice* (3-item measure Kirchmeyer & Cohen 1992)
- *factors said to impact on commitment* such as the development of a shared understanding of the issue(s)(Phillips 1989d; Phillips & Phillips 1990; Phillips 1990b; Phillips & Phillips 1993; Thierauf 1989; Galliers et al. 1991; Dobson 1991; Morgan 1992); the extent to which the participant feels that others in the

group support the decision, the extent to which the participant feels the organization is capable of acting on the decision made (i.e. belief in the ability to implement the decision), perception of other's belief in the organization to implement it, the degree to which participants perceived themselves and others to be involved in the process and their perspectives incorporated(Thierauf 1989; Dobson 1991; Morgan 1992; Phillips 1989c), the degree to which participants felt that they 'owned' the model (Phillips 1989e)

- *shared understanding*, and
- *factors said to impact on developing a shared understanding* including perceived transparency of the model (Phillips 1988a), the degree to which differences of opinion were explored (Phillips 1989e), the role of the facilitator in helping the group to structure their thinking, incorporate perspectives and model the problem so that the shared understanding can then be developed (Phillips 1990b).

Following is a more detailed discussion of the measures relating to the central constructs in this paper i.e. commitment and shared understanding. As discussed, the pilot study described earlier was used to fine-tune the survey instrument as far as possible given the small number of participants (13).

All items were measured on a 7-point Likert scale, which included some items reversed to avoid the problem of response bias. Whilst there does exist some controversy regarding whether a Likert scale is interval or merely ordinal (Neuman 2000), these scales have been found to communicate interval properties to the respondent, and therefore produce data that can be assumed to be intervally scaled (Madsen 1989; Schertzer & Kerman 1985). Despite the differences that exist concerning the appropriate number of points in a Likert scale, background research suggests that the optimal number of scale categories is content specific and a function of the conditions of measurement (Cox 1980; Friedman, Wilamowsky & Friedman 1981; Komorita 1963; Matell & Jacoby 1971; Matell & Jacoby 1972; Wildt & Mazis 1978). However Neuman (2003: 197) suggests the following as a guide:

> Likert scales need a minimum of two categories, such as "agree" and disagree"…It is usually better to use between four to eight categories..More distinctions than that are probably not meaningful and people will become confused.

Neuman (2003: 97) also quotes Nunally (1978:521) in asserting that as the scale steps increase from 2 onward the corresponding increase in reliability is initially quite rapid, however this effect levels off at around 7 thus there is little to be gained from including additional steps.

The use of a seven-point scale in this survey was therefore within the generally accepted range of categories. In addition to this, the survey instrument included the use of two adapted measures for commitment (Kirchmeyer & Cohen 1992; Hollenbeck, Williams & Klein 1989), which had been previously validated using the same scale.

Refer to Appendix A for the Quantitative Survey Instrument.

3.6.3 Measuring Commitment

As outlined in the literature review, an investigation of the Decision Conferencing literature failed to provide a clear validated measure of commitment to action in the context of Decision Conferencing. As a consequence a review of alternative measures of commitment in various fields of literature including goal setting and decision choice led to the identification of three possibly relevant methods of representing the concept of commitment to action. This included a direct measure of commitment (Tubbs & Dahl 1991), goal commitment (Hollenbeck, Williams & Klein 1989) and commitment to choice (Kirchmeyer & Cohen 1992). These measures were applied to the Decision Conference process in this study to determine their validity and reliability as commitment measures in this context, and to measure how they related to shared understanding and the modeling process.

3.6.3.1 Direct Measure of Commitment

A direct measure of commitment similar to that outlined by Tubbs & Dahl (1991) was included in the survey. The original measure and the adaptation for this study are presented in Table 3-3 (over).

Table 3-3 Direct Measure of Commitment

Variable Label	Qu. No.	Original Items	Adapted Item
Icomitd1	14	How committed are you to attaining the goal? To what extent do you feel committed to the goal?	I felt personally committed to the outcomes of the Workshop

3.6.3.2 Commitment to Choice

An alternative measure for commitment was that known as commitment to choice Kirchmeyer & Cohen (1992). Table 3-4 presents the original measures with the adapted items from Part B of the questionnaire. Again, Part A was almost identical except for the fact it was written in the past tense. Questions were rated on a scale of 1 to 7 where 1 indicated that the participant strongly disagreed with the statement and 7 indicated strongly agreement.

Table 3-4 Commitment to Choice – Kirchmeyer and Cohen 1992

Variable Label	Qu. No.	Original Item	Adapted Item
Kgddec1	30	I am strongly committed to pursuing this goal.	I am sure that we made the right decision in choosing this outcome
Kcnfdnt1	31	I am willing to put forth a great deal of effort beyond what I'd normally do to achieve this goal.	I am confident about our decisions relating to this outcome
Kchnge1	32	Quite frankly, I don't care if I achieve this goal or not.	It would take quite a bit to get me to change my mind about the decision we made

3.6.3.3 Goal commitment

The notion of goal commitment falls within the field of Goal Setting Theory. Goal Setting Theory (GST) holds that once a goal is accepted, the only logical thing to do is to try one's hardest until that goal is achieved or until one decides to relinquish the goal (Locke 1968 in Klein 1991). Table 3-5 outlines the measures from this field adapted for Part B of the survey. Part A was almost identical except for the fact it was written in the past tense. Questions were rated on a scale of 1 to 7 where 1 indicated that the participant strongly disagreed with the statement and 7 indicated strongly agreement.

Table 3-5 Goal Commitment - Hollenbeck, Williams & Klein, 1989

Variable Label	Qu. No.	Original Item	Adapted Item
Hcomit1&2	21	I am strongly committed to pursuing this goal	I am strongly committed to pursuing the implementation of this outcome
HEffort1&2	22	I am willing to put forth a great deal of effort beyond what I'd normally do to achieve this goal	I am now willing to put in a great effort in order to implement the outcome of the Workshop
Hnocare1&1	23	Quite frankly, I don't care if I achieve this goal or not	Quite frankly, I don't care if we implement this outcome or not
HnoGain1&2	24	There is not much to be gained by trying to achieve this goal	There isn't much to be gained by trying to implement this outcome
Hrevise1&2	25	It is quite likely that this goal may need to be revised, depending on how things go	It is quite likely that this outcome may need to be revised, depending on how things go
Hdrop1&2	26	It wouldn't take much to make me abandon this goal (Tubbs, 1993 suggested: "I will maintain my personal goal no matter what happens", as a substitute for this.)	I feel it wouldn't take much to make me abandon this outcome
Hunreal1&2	27	It's unrealistic for me to expect to reach this goal	I think it is unrealistic for us to expect to implement this outcome

Variable Label	Qu. No.	Original Item	Adapted Item
Htough1& 2	28	Since it's not always possible to tell how tough this goal is, it's hard to take this goal seriously	Since it isn't really possible to tell how tough this outcome is to implement, it is hard to take it seriously
Haim1&2	29	I think this goal is a good goal to shoot for	I think this outcome represents a good package to aim for

3.6.3.4 Expectancy Theory and Commitment

Related to the area of Goal Commitment is the notion of Expectancy theory. Expectancy theory holds that individuals will choose effort levels that they believe will lead to valued outcomes (Vroom 1964). Individuals will choose that level of effort with the greatest motivational force (MF), where the MF for a particular action is a function of expectancy (likelihood that a particular outcome will result from that action) and attractiveness (the affective orientation towards that outcome). Attractiveness is used to refer to *V,* the valence of an outcome (Klein 1991: 230-231) i.e.

> Given that the decision to remain committed to a goal or to accept an assigned goal can be viewed as a form of choice, several authors have also proposed that expectancies and attractiveness interact to influence goal acceptance and commitment.

Klein provides a number of authors who support this idea. From this, motivational force is seen as the drive for goal attainment, which is then linked to high performance.

Another article by Tubbs & Ekeberg (1991) discusses the role of intention in motivational work. Their view of intention is that of a cognitive representation of the objective (or goal) that one is striving for and the *action plan* one intends to use to achieve that objective (note this doesn't always mean a formalised action plan as prepared in a Decision Conference – it could also be the objective and plan to make a coffee). The relevance here however is their claim that people choose intentions. Objectives and action plans are not chosen separately. This is relevant in that if this is true, then it could be argued that it is quite reasonable to take the action plan as

being linked to the goal. It thus makes sense to ask about commitment to this. Tubbs and Ekeberg (1991) also looked at Expectancy-Valence theory in this context.

In measuring attractiveness and expectancy, Klein looked at a number of different grades as the goals. In Decision Conferencing this didn't quite fit, however it was felt that it was possible to take the action plan or outcome as the goal. The rationale here was that the action plan represents the decisions taken - the commitment is commitment to acting i.e. implementing the action plan.

Therefore, assuming the action plan formed a reasonable proxy for the decisions taken and thus the 'goal' the following questions were asked to assess motivational force:

Table 3-6 Motivational Force – Klein, 1991

Variable Label	**Qu. No.**	**Original Item**	**Adapted Item**
Valency1& 2	18	"Please indicate how attractive it would be for you to obtain the goal of (insert goal). That is, all things considered, how good would you feel about achieving this goal? Circle the number that best matches your feelings using the scale below" (Very unattractive –3 to very attractive +3)	Please indicate how attractive it was for you to successfully put in place the outcome of the Workshop (Very unattractive: 1 to very attractive: 7)
Expect1&2	19	"Please indicate below what you think your chances are of achieving this goal. Enter a number between 0 and 100 which best describes what you think the probability is of your achieving this goal?" Klein (1991) provided participants with a scale to use from 0 (no chance at all) to 100 (complete certainty). What are the chances in 100 that you will obtain this goal?	Please indicate what you thought the group's chances were of implementing the outcome. Enter a number between 0 (no chance) and 100 (complete certainty)

Calculating Motivational Force

The expectancy is multiplied by the corresponding attractiveness after each is standardised to eliminate scaling differences.

3.6.4 Shared Understanding

As no specified measure for shared understanding was evident in the Decision Conference literature, the following questions were used, again measured on a 7-point Likert scale.

Table 3-7 Direct Measure of Shared Understanding

Variable Label	Qu. No.	Item
Undstnd1 & 2	17 & 37	The Workshop helped me to really understand the issues being discussed
SU1	44	A shared understanding of the issues was reached by the end of the Workshop
SU2	45	The modeling process effectively creates a shared understanding of the issues
CSU	56	Displaying the results of discussion in a model developed a better understanding of the points being discussed

3.6.5 Computer Modeling

There was no measure for computer modeling per se within the quantitative survey instrument. Rather participants were provided with a definition of what was meant by computer modeling when it was referred to in the survey i.e.

> The term Computer Modeling refers specifically to the use of the computer program during the Workshop. Broadly, steps in the computer modeling would have involved defining the options and the criteria used to evaluate these; rating the options on each criterion, assessing the relative importance of the criteria; doing an overall evaluation of the options and conducting sensitivity analysis (e.g. 'what if' scenarios). You may want to consider some of these things as we talk about the Workshop.

This definition was discussed with participants prior to completion of the questionnaire.

Table 3-8 presents the various measures focusing on the issue of computer modeling.

Table 3-8 Measures Related to Computer Modeling

Variable Label	Qu. No.	Item
DCSU	40	The modeling process helped me to really understand the issues being discussed
DCINSGHT	41	The modeling process provided insight into the opinions of other participants
EXPLAIN	42	The modeling process aided in explaining my ideas to others
SEEOTHRS	43	The modeling process assisted in developing my understanding of the opinions of other participants
SENSITVE	46	The modeling process effectively creates a shared understanding of the issues
SU2	45	Being able to test out differences of opinion in the modeling process (e.g. regarding estimated weights) helped me to develop a deeper understanding of the issues being discussed
CCLEAR	52	The graphical displays from the modeling made the issues much clearer
CCOMBINE	53	The model was the result of the integration of the ideas of all participants
CLOYAL	54	Group model building leads to plans that will be loyally implemented
CMODHARD	55	I found some parts of the modeling process hard to understand
CSU	53	Displaying the results of discussion in a model developed a better understanding of the points being discussed
CRATIONL	57	The process of building the computer model provided a rational approach to decision making
CNFIDENT	58	Being able to test out differences of opinion (e.g. regarding estimated weights) on the model made me feel more confident about the final outcome

Variable Label	Qu. No.	Item
BTRSOLN	59	The modeling process clearly demonstrated which solutions/packages were obviously better than others
FEEDBACK	60	The computer modeling provided immediate feedback regarding the implications of what we were suggesting (e.g. changing weights, altering preference judgments etc)

3. 7 Data Collection

3.7.1 The Data Collection Process – An Overview

Having developed the interview guide and quantitative survey instrument, the next step was to collect the data. Once eligible organisations had been identified (refer to Section 3. 5 Participants in the Study) and permission gained to include these individuals in the study, some background information was sought. This included information regarding the organisation (e.g. nature of the organisation, the issue addressed, details regarding the Decision Conference process used, the facilitators involved, a copy of the final report recording the output from the Decision Conference) and each of the participants (e.g. name, position within the organisation). This preliminary work informed the interview process; with modification of the face-to-face interview guides to take into account the unique decision(s) taken and the specific modeling process used.

Upon completion of the preliminary fieldwork, data collection proceeded as follows:

1. In discussion with external service provider (ESP), identify possible candidate organisations for inclusion in the study
2. Letter sent out by ESP introducing the researcher, outlining purpose of the study and inviting them to participate
3. Follow up telephone contact to confirm participation and schedule meeting with participants
4. Review available documentation regarding the Decision Conference in question (e.g. reports where available)
5. Travel to site (e.g. office/home etc)

6. Complete face to face interviews and/or quantitative surveys. This involved
   6.1. Case 1 and Case 2 - Conduct semi structured interviews with participants. Participants then completed the structured questionnaire at the conclusion of the face to face interview
   6.2. For all other Decision Conferences involved in the study, participants complete the structured questionnaire
7. Obtain permission to return to participants should further clarification/information be required
8. After each interview, field notes observations and comments were written up by the researcher for later review and analysis. Quantitative survey data entered into SPSS. Transcription of responses to open-ended questions took place upon returning to Australia

Data Collection therefore consisted of 70 quantitative surveys and 24 semi-structured face-to-face interviews, collected over an 8-week period. This thesis reports on the findings based on all of the completed quantitative surveys (68) and provides an in-depth analysis of the two qualitative case studies (i.e. 24 respondents).

3.7.2 Qualitative Data Collection

Participants were interviewed individually within 5 - 8 months of the Decision Conference. The interviews varied in length, although most were between one and two hour's duration and generally took place at the participant's workplace. The time and place of the interviews were arranged at each of the participants' convenience.

Interview data was recorded manually (i.e. notes) and via audiotape. Permission had also been obtained to return to participants should further clarification/information be required. To assist in the data collection and analysis phases a field notebook and a field diary was also utilised to chronicle the researcher's own thinking, experiences and perceptions throughout the research process. Other data incorporated into the overall analysis included documentation such as field notes, hard copy output from the Decision Conferences and the final Decision Conference report provided to each organisation. This all helped to provide context and add meaning to the interview data.

3.7.3 Quantitative Data Collection

Designed as an adjunct to the qualitative research, the quantitative survey instrument took between ten and fifteen minutes to complete. Upon meeting the participant, the researcher outlined the purpose of the study and discussed the process involved in completing the questionnaire. The researcher handed the survey to the person involved, briefly went through the contents and what was required, then waited while it was completed. Whilst waiting, the researcher remained in the room, made notes, and read accompanying documentation regarding the Decision Conference in question. This was not only making good use of the time, but was also intended to prevent the respondent from feeling that they had to hurry through because they were being waited on.

An additional benefit of the researcher being available to answer questions or clarify meanings was the potential improvement in validity and reliability of the responses.

3. 8 Qualitative Data Analysis – The Face to Face Interviews

Generally, qualitative data analysis does not come with a prescriptive set of instructions. While there is a great deal of information regarding the various methods available for qualitative data *collection*, this is less true with regard to detailed discussion of specific methods for *analysis*. There are a few exceptions to this including Strauss & Corbin (1990); Miles & Huberman (1994); Silverman (1993) and Dey (1993), although none of these proved suitable for this study. As Creswell (1994) notes, it is an eclectic process where quite different approaches may be equally appropriate. However, the underlying assumption in this study was that the purpose of the analysis was to make sense of the data gathered, with particular but not exclusive reference to the research objectives. As Marshall & Rossman (1995: 111) note:

> Data analysis is the process of bringing order, structure and meaning to the mass of collected data. It is a messy, ambiguous, time consuming, creative and fascinating process.

Merriam (1988) and Marshall & Rossman (1989) contend that data collection and analysis must be a simultaneous process in qualitative research. Typically, research of this nature seeks to identify and describe patterns and themes from a participant

perspective, then attempt to understand and explain these patterns and themes (Creswell 1994).

It was therefore felt that it was important to apply a consistent analytical approach across the case data to facilitate understanding and enable comparisons where possible. This strategy is also cited by Silverman (1993) and Tashakkori (1998) as a means of increasing the rigour of qualitative research. Consequently, while acknowledging there were many possible routes to take, this section outlines the systematic procedure adopted in this study and the rationale behind the various steps taken.

In summary, however, interviews were transcribed, and then mapped using the cognitive mapping software, Decision Explorer™. Concepts identified during the mapping process were then used as the basis for creating categories in NVivo™ (software designed to facilitate the storing and analysis of qualitative data). This was followed by detailed analysis of each of the individual maps, prior to building a composite map of the group's Decision Conference experience. A sample of an interview transcript and the associated map is contained in Appendix D. Finally, the composite maps were analysed, key issues and themes compared with those evident in the individual maps and findings written up.

The remainder of Section 8 reviews each of these stages in the analysis of the qualitative data.

3.8.1 The Initial Approach to Data Analysis

Initially the qualitative data analysis software, NUD*IST™ (QSR 1997), was selected to facilitate analysis of the data collected. NUD*IST™, otherwise referred to as N4™, stands for Non-numerical, Unstructured, Data: Indexing, Searching and Theorising (QSR 1997). Basically N4™ works with primarily text-based documents, such as transcripts of interviews, and facilitates the indexing of components of these documents.

One of the benefits of N4™ is that once the transcribed interview has been loaded into the software, it is possible to quickly and efficiently conduct quite complex searches for words and phrases. Meaningful chunks of data can be identified, retrieved and grouped into 'nodes' for analysis. N4™ supports theorising through

enabling the retrieval of indexed text segments, related memos, and text and index searches and through the construction of a hierarchically structured tree to order index categories (Richards & Richards 1994; QSR 1997; Weitzman & Miles 1995 in Buston 1997).

Based on these perceived benefits, it was initially intended that the process for the data entry and analysis of the interviews would therefore be as follows:

1. Transcribe interviews
2. Load interviews into N4™
3. Code transcripts using lines as text units
4. Analyse data using N4™ as the primary support tool
5. Export coding to the cognitive mapping software Decision Explorer™ for final visual representation of the analysis

As N4™ doesn't readily facilitate the visual representation of the data, apart from very basic tree structures, it was thought that the use of Decision Explorer™ would act as a useful complement to the planned analysis. It was initially thought that the use of Decision Explorer™ would be limited to a graphical representation of the data. The process involves entering concepts or ideas and the links between them thus building up a model or 'map' of the experience under review. For further discussion of the process of mapping refer to Section 3.8.3 Mapping the Interviews.

However approximately halfway through the analysis and write up of the first case, this process was reviewed. It was found that despite being able to easily identify concepts and key themes in the data through using N4™, there were still many difficulties with extracting meaning from the data organised in this way. Whilst there were commonalities across the interviews regarding concepts, the meaning behind these ideas lay in the links between ideas discussed by participants. Unfortunately these linkages were lost to some extent when coding in N4™ due to its hierarchical nature. It quickly became evident that a less cumbersome and more meaningful way to work was required. At the same time that this reassessment of methods was taking place, the researcher attended a workshop facilitated by an expert user of the cognitive mapping software, Decision Explorer™. The workshop addressed the topic of cognitive mapping, with a focus on the use of the cognitive

mapping software, Decision Explorer™. This workshop, combined with a review of related literature, proved to be the catalyst for a reworking of the approach to qualitative data analysis in this study.

Rather than using Decision Explorer™ merely as a tool for illustrating the findings it emerged that the software would provide more benefit if used as the principal analytical tool. Decision Explorer™ had in fact been developed in order to facilitate the exploration of relationships between different ideas and perspectives, rather than as a graphics package (ironically, flexibility in its graphical capabilities is probably the software's main weakness).

With Decision Explorer™ the map is not simply a presentation or picture but rather a dynamic model. As a result of this, it is possible to investigate any aspect of the model, exploring and expanding elements of interest or "collapsing" (focusing) on specific aspects. It is the analytical tools available that provide the key strengths of this software. Sets and styles can be used to identify and manipulate different data types, while clusters, feedback loops and pivotal ("potent") can be identified automatically in the data. Decision Explorer™ was therefore selected as the primary tool for the depiction and analysis of the interview data. However a means of capturing the supporting evidence for the maps and exploring themes from another perspective was still required.

Around the same time as the decision to switch to Decision Explorer™ was made, QSR released a new product called NVivo™. Where N4™ was limited to the use of plain (AASCI) text in order to support coding, NVivo™ was able to handle data as rich text – with full ability to edit, visually code and link documents as they are created, coded, filtered, managed and searched. Reporting and output functions were also improved. This reduced the time needed to prepare interview transcripts, provided an easier interface to work with and resolved the issue regarding capture of supporting evidence.

As a consequence of the above developments, a revised approach was developed and followed i.e.

1. Transcribed interviews.
2. Loaded interviews into NVivo™.

3. Mapped individual interviews into the cognitive mapping software, Decision Explorer™.
4. As concepts were identified, used these as the basis for creating the index 'nodes' in NVivo™.
5. Selected the appropriate section of the transcript and assigned it to the index node in NVivo™ for later retrieval if required (e.g. a quote as support for discussion regarding that concept). Coding in NVivo™ also facilitated text searches on the full document.
6. Analysed and reviewed individual maps for common concepts and patterns, using the process outlined in Section 3.8.5 Analysis of the Cognitive Maps.
7. Based on 6 - constructed the composite map for that particular Decision Conference.
8. Conducted exploration and analysis of the Decision Conference experience using Decision Explorer™ (refer to Table 4). Use of NVivo™ to retrieve relevant documentation from the transcripts.
9. Write up of findings (iterative with analysis).

The initial analysis conducted on the first case was subsequently recreated using the above approach as a trial to see if this would better facilitate an exploration of the research objectives. Fortunately, this revised approach was found to yield a richer, more meaningful picture of the participants' perceptions of the conference. An additional crucial benefit was that meaning also emerged in a clearer manner that could now be more readily verified if required. Following is a more detailed description of this revised process.

3.8.2 Transcription

Once the data had been collected it needed to be transformed into a format more amenable to ongoing analysis. This involved transcription of the taped data (combined with notes made during the interview). The transcript plays a critical role in qualitative research as it captures the elements of the interview and becomes the focus of the analysis. Therefore choices made regarding transcription impact on the interpretations the researcher makes based on this data (Edwards, 1993: 3). Within

this study, two guiding principles were adopted from Edwards (1993) regarding transcription:

1. that the transcript preserve the information in such a way that it remained true to the nature of the interaction itself (termed authenticity by Johannson 1991 in Edwards 1993: 4); and
2. that the transcription conventions used be practical with respect to the way in which the data was to be managed and analysed e.g. easy to read, apply to new data sets etc.

Based on these guiding principles it was important that the conventions used enhanced consistency in transcription, that the transcripts remained readable (important in analysis and interpretation of meaning) and that the final product was still amenable to analysis using computer software such as NVivo™. For example, it needed to still be possible to meaningfully search for instances of interest to the researcher, avoiding excessive over or under selection if possible (Edwards 1993).

In line with the above principles and to enhance authenticity, this study largely relied on an adaptation of the basic categories, symbols and conventions for discourse transcription outlined by (Du Bois et al. 1993). Discourse transcription is basically the process of creating a written representation of a speech event that makes it accessible to a form of discourse research. Refer Appendix C for the adopted transcription guide. Briefly, however, the interviews were transcribed verbatim, with indicators and notes regarding turns of speech, pauses, intonation, the quality of speech (e.g. shifts in pitch and pace), laughter, uncertain hearings or indecipherable words and the researcher's observations or comments.

3.8.2.1 Transcription quality as an aspect of rigor

As discussed, the interview transcripts formed the basis for the qualitative data analysis in this study so it was imperative that their trustworthiness be established (Poland 1995). A number of steps were taken to ensure that the audiotapes of the interviews and the transcripts were of a high standard and accurately reflected what took place during the actual interview. That is:

- Recording equipment was of a high quality and provided clear recordings of the interviews. New batteries were used with each interview and a recording check

was made prior to each interview. Extra tapes and batteries were brought along to the interviews.

- During the interview the tape was periodically monitored to ensure it was still recording (i.e. a quick visual check generally not obvious to the participant).
- Notes were made during the interviews as a backup and to provide additional contextual descriptions.
- Where possible, interviews took place in surroundings free from background noise and/or distractions.
- After the interview, tapes were checked, labeled and stored separately from blank tapes.
- Transcribers were provided with a clear written set of instructions and a sample to base their work on.
- Each interview was reviewed for areas that had been marked as difficult or indecipherable. Problematic interviews were reviewed in total.
- All comments elicited for use as quotes within the paper were double checked for accuracy.

Member checking, where the researcher checks the accuracy of transcripts by going back to the participants (Guba & Lincoln 1989), has been used in other studies as another possible means of facilitating authenticity. However, its use as a validation tool is seen as problematic in that not only are perceived errors corrected, but there have also been reported instances where attempts to change or clarify (justify) what has said has also taken place. While this may add to the information gathered, it does not necessarily help in terms of validation of the actual transcript (Poland 1995). Therefore, member checks were not used in this instance.

3.8.2.2 Presentation of Quotes from the Transcripts

An important side issue here is the question of reporting of extracts from transcripts (e.g. as direct quotes to illustrate a point). How much editing, if any, is permissible? A general consensus appears to be that it is important not to edit the essence of a quotation, but that it is acceptable to remove the ‘mmms’ and pauses unless these and the intonation impact on the meaning (Morse 1994). Part of this argument is related

to the way that the paralanguage most people use in speech (um, er, ah) appears in print. It often makes the individual sound less articulate than they really are and can actually get in the way of conveying the participants intended message. It is important to note that any modifications of this kind were not carried out on the original transcript.

3.8.3 Mapping the Interviews

As indicated earlier, once the interviews had been transcribed, the next step was to map individual interviews into the cognitive mapping software, Decision Explorer™. This section outlines the elements involved in mapping the interviews, beginning with a description of cognitive mapping.

3.8.3.1 What is Cognitive Mapping?

A cognitive map is basically a visual representation of how an individual or group thinks about an issue or situation. The theoretical basis for cognitive mapping comes from Kelly's (1955) Theory of Personal Constructs and his Repertory Grids approach (Eden & Ackermann 1998: 285). Kelly's theory suggests that we make sense of the world in order to predict how the world will be in the future and to decide how we might act to achieve our own goals in that world – "a predict and control view of problem solving" (Ackermann, Eden & Cropper 1995).

The strength of the mapping process lies in its ability to help structure, organise and analyse data in such a way that one can not only develop an understanding of the issues but also begin to identify possible opportunities for change. The following discussion from Ackermann, Eden & Cropper (1995) also provides some additional insight into the process:

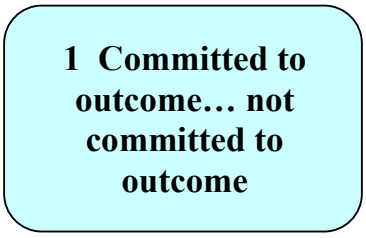
> Cognitive Mapping allows users to structure accounts of problems. As such it may provide valuable clues as to the client's perceptions of the problem giving indication as to where the "nub(s)" of the issue may lie. Aims and objectives can be identified and explored, options examined to see which are the most beneficial and whether more detailed ones need to be considered. Dilemmas, feedback loops and conflicts can be quickly distinguished, explored and worked upon. Moreover, it may increase the user's understanding of the issue through the necessity of questioning how the chains of argument fit together and determining where isolated chunks of data fit in…

Using the interview transcript printout from NVIVO™ as a basis, cognitive maps of each of the interviews were developed using the cognitive mapping software, Decision Explorer™. This involved identifying the various concepts raised in the interview, capturing these ideas in the software and specifying the relationship(s) between the various concepts contained in the map. Once this had been accomplished the map was ready for further analysis.

3.8.3.2 What are Concepts?

Concepts in Decision Explorer™ are essentially ideas and it is preferable if each concept in the map expresses only one idea or notion. There are six types of concepts: Bipolar; Shorthand bipolar; Monotonic; Emergent pole only; Contrasting pole only; and Assertions. An example of a bipolar concept is presented in Figure 3-1.

Figure 3-1 Example of a Bipolar Concept



Bipolar concepts are the most common variety of concept. They contain an emergent (or positive) and a contrasting (or negative) pole to indicate an idea and its converse. The concept in Figure 3-1 is a bipolar concept where the three dots (ellipsis) are short hand used by the software for 'rather than'. Thus the full concept is read as "Committed to the outcome rather than not committed to the outcome".

Most relationships can be expressed with bipolar concepts. The emergent pole only and contrasting pole only concept types are implicitly bipolar because Decision Explorer automatically infers the opposite pole of the concept. It is these three types that are most common in this study.

Monotonic concepts describe the state of a quantity that can either increase or decrease. These are really a special form of bipolar concept that allows a shorthand form of entry. A monotonic concept is entered in the form:

Anxiety+

and will be displayed as:

[+] Anxiety ... [-] Anxiety or
an increase in inflation .. a decrease in inflation

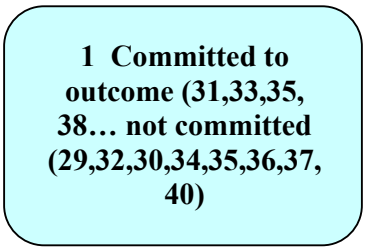
The actual display format depends on the option chosen in the Decision Explorer™ software. Shorthand bipolar is really just a shorthand approach to entering a concept where there is common text in both poles. The type of concept is identical in every other way to a conventional bipolar concept and does not appear any different to someone looking at the map.

While most concepts naturally have a positive and a negative pole, some ideas are not amenable to this approach and do not naturally have an opposite pole (Jones 1994). These are known as assertions, such as 'An expectation of large cuts was imposed on the Council'.

3.8.3.3 Concept Conventions Relevant to this Study

Figure 3-2 provides an example of the presentation of concepts within this study.

Figure 3-2 Example of a Bipolar Concept



The number at the start of the concept (1) indicates the *concept number*. There is no significance associated with this number. It is a label that Decision Explorer™ attaches to concepts as they are entered into the software, although it is possible for the researcher to override this.

The *concept label* 'Committed to outcome…not committed' is created by the researcher and is intended to capture what the participant was talking about in the interview. Here the statement related to whether or not the participants felt committed to the outcome of the Decision Conference.

Inclusion of numbers following the label is an approach adopted by the researcher to identify those interviews most strongly associated with a concept. Each number is an actual interview identification number assigned by the researcher to each transcript. The convention used in this study is that those numbers appearing before the ellipsis (the three dot shorthand for 'rather than') indicate support for the initial statement, while those following the ellipsis indicate support for the opposite pole. For example, even without recourse to the interview transcript, it is possible to observe in Figure 3-2 that four participants stated that they did feel committed to the outcome, while eight said that they did not.

Where no alternative pole is indicated, those numbers appearing before a minus sign (-) indicate support for the concept and those behind the minus sign indicate express disagreement with the concept. In the individual maps a similar convention was followed for tracking support, in that as each concept emerged the relevant line number(s) from the transcripts were noted. These measures:

- facilitate substantiation of claims made regarding ideas to emerge from the research;
- make tracking down supporting quotations a simple exercise; and
- provide quick visual evidence within the maps of support for or against particular arguments

To assist in visually differentiating between different categories of ideas, concepts were assigned *styles*. Styles are essentially created using different fonts, borders and colours. For example, after conducting a cluster analysis a group of concepts can be visually represented as belonging together by assigning them a particular style. The concept in Figure 3-2 is an example of this where a cluster analysis in the first case produced a group of concepts revolving around the theme of commitment. These were assigned the colour blue. Where styles have been assigned during the analysis, this has been clearly indicated by providing an accompanying legend in the relevant section.

When referring to a concept in discussing the maps, the convention used in this study is to place the number in brackets and indicate with a hash sign followed by the number. For example, (#2) would refer to concept number 2 pictured in this section.

3.8.3.4 Sets in Decision Explorer™

Sets are one of the key features of Decision Explorer™ and as such are worth reviewing here. Sets are primarily a means of managing and organising concepts for analysis and presentation. Some sets are created automatically by Decision Explorer™ e.g. any styles created will automatically form a set. Other sets may be created to facilitate presentation and further analysis. For example, after identifying all of the central issues in a map, these were grouped into a set called "Key Issues". Further analysis could then be focused just on the concepts within this set.

Sets are not always evident visually, although assigning a set a specific style will tend to highlight that set as will generating maps based on a specified set.

Sets are generally not mutually exclusive and a concept can be part of a number of sets. There are exceptions to this such as the output from a cluster analysis.

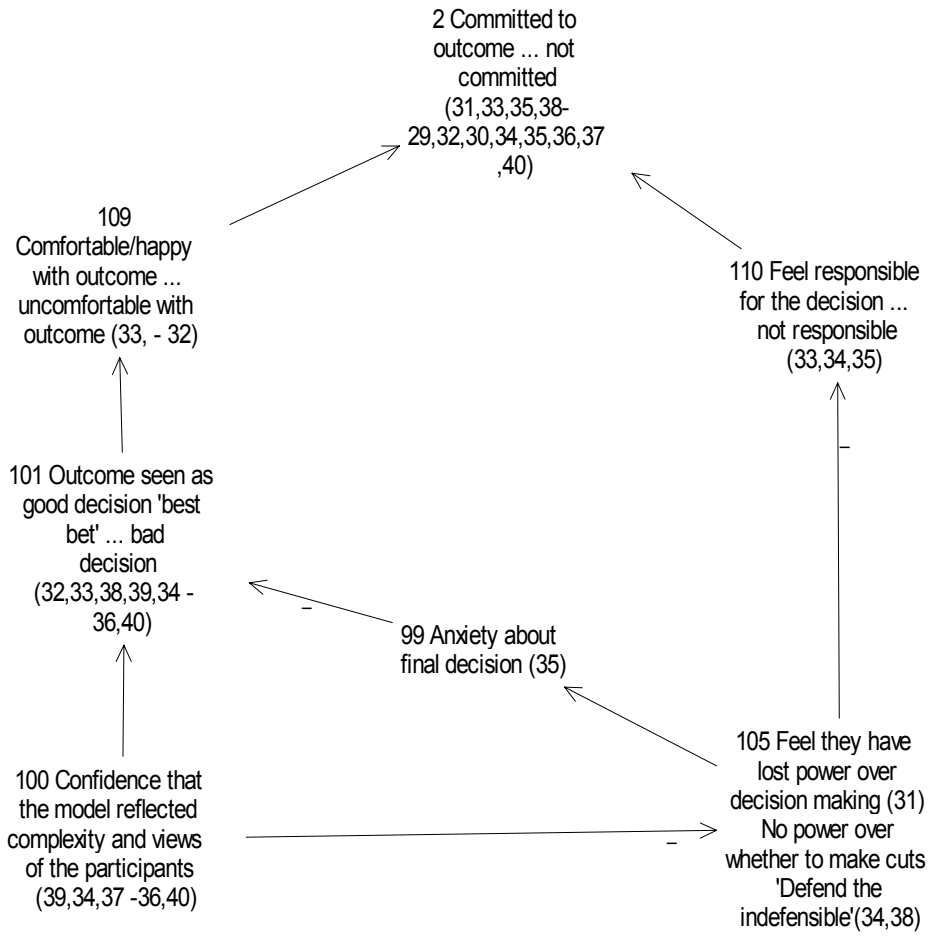
3.8.3.5 A Sample Map

An example of the beginnings of a cognitive map is presented in Figure 3-3 (over). This map is based on concepts from one of the composite maps in the study. Note that the concepts have not been assigned styles at this stage.

In Figure 3-3 we can see both the concepts (7 in total so far) and the links between the concepts. A link is the arrow between two or more concepts and is used to add meaning to the map. In this study, links are usually read as 'may lead to', 'supports' or 'causes'. Links may be positive or negative. A negative link indicates that the concept the link is coming from may lead to the *opposite* of the concept it is going to.

For example, in Figure 3-3 Concept 100 *Confidence that the model reflected complexity and views of participants* may lead to the opposite of 105 *Lost power over decision making* i.e. confidence would be more likely lead to a feeling that they had <u>not</u> lost power over the decision making. Note that Decision Explorer™ places the minus sign arbitrarily at points along the line it relates to. There is no significance (e.g. degree of influence) associated with the actual placement of the sign along the line. It is either there or not there.

Figure 3-3 Sample Cognitive Map



Also in Figure 3-3 we can begin to see a line of thought emerging. For example, even on this small map it is possible to observe that there are currently three perceived routes to reaching a commitment to the outcome i.e.

Route 1

+#2 Committed to outcome may be explained by +#110 Feel responsible for the decision which can be explained by -#105 i.e. retaining power over the decision making which can be explained by #100 Confidence that the model reflected complexity and views of the participants.

Route 2

+#2 Committed to outcome may be explained by +#109 Comfortable/happy with outcome, which can be explained by +#101 Outcome seen as good decision 'best bet', which can be explained by +#100 Confidence that the model reflected complexity and views of the participants.

Route 3

+#2 Committed to outcome may be explained by +#109 Comfortable/happy with outcome which can be explained by +101 Outcome seen as good decision 'best bet' which can be explained by -#99 ... [not] Anxiety about final decision (35) which can be explained by -#105 i.e. retaining power over the decision making which can be explained by +#100 Confidence that the model reflected complexity and views of the participants (39,34,37 -36,40).

As the map becomes more complex, tracing these paths by eye becomes more difficult; however Decision Explorer™ features a number of tools that serve to support this sort of analysis. Indeed, the three routes described above are copied almost verbatim from the report generated by running the *Explanations* command in the software, specifying *#100 Committed to outcome* as the concept to focus on. Whilst a review of the full capabilities of Decision Explorer™ is beyond the scope of this thesis, some of these analytical tools will be discussed in more detail in 3.8.5 Analysis of the Cognitive Maps.

3.8.3.6 A Note with the Benefit of Hindsight

Much of the cognitive mapping literature discusses the benefits of creating cognitive maps directly at the time of the interview. In doing so, the researcher can not only ensure that the map represents the views of the participant by checking as they go along, but the clear visual representation of the person's line of argument also triggers a number of questions that can be explored along the way. Unelaborated concepts become obvious, as do issues that seem to be disconnected from the main body of the discussion. Whilst in hindsight, this appears to have been a preferable way to approach this study, there are two primary reasons it was not used in this instance:

1. At the outset of the study the researcher was not sufficiently familiar with the benefits of the cognitive mapping approach.
2. Direct cognitive mapping during an interview requires a high degree of expertise, which the researcher did not possess at that time. As a consequence, the interviewing process would likely have been a difficult and frustrating process for both researcher and participant.

The data was therefore collected using the more usual in-depth interviewing approach as discussed in 3.7.2 Qualitative Data Collection. Despite this, a precedent for the success of the approach in this study where transcriptions from interviews were subsequently mapped can be found in Edkins (1998). Using Decision Explorer™ in this way is also supported by Ackermann, Eden & Cropper (1995).

3.8.4 Coding Concepts in NVIVO™

In order to electronically 'tag' the interview data for later analysis and retrieval in NVivo™, the relevant sections of the various transcripts needed to be coded at the appropriate concept names (or nodes as they are referred to in NVivo™). These concept names were identified during the mapping process as discussed above.

As each concept was identified during the mapping process, the concept name was used as a basis for creating relevant nodes in NVivo™ and the accompanying text identified and coded at that node. For example, with regard to the concept identified earlier, *#2 'Committed to outcome…not committed',* a node entitled *Commitment* was created in NVivo™, with two sub nodes related to the two poles of committed and not committed. Text directly linked to this concept was then coded at the relevant node. Examples of text coded at *Not Committed* include:

> I felt there where things that were almost inconceivable in terms of the reductions envisaged, so no I couldn't say that I felt committed to them. In a sense I didn't think they were achievable. (S040)
>
> Nor would any politician be committed to any course of action that would actually jeopardise their political position. (S029)
>
> I'm not personally committed to (the outcome) I'm personally committed to making social services more efficient, better, but not in making massive cuts. (S037)

It is important to note here that lines from the transcripts were often related to more than one concept in Decision Explorer™ and thus often required coding at more than one node in NVivo™. This was an important facility as can be seen from the examples given above. While all of these quotes talk about not being committed, each one links this to a slightly different rationale and this also needed to be captured.

As discussed earlier, NVivo™ was seen as an efficient means of handling such large volumes of data and one of the first steps was to load each of the typed transcripts into the software. However, even before this a decision needed to be made regarding what would comprise a text unit i.e. what it was that would get coded in the transcript and thus become the unit for any analysis conducted in NVivo™. The software offers the option that a text unit may be a single word, a line, a sentence, a paragraph, a section or a whole document. In the end, it was decided that the most appropriate unit of analysis in this study would be the line. Sentences and paragraphs both proved too long, covering too many topics and themes.

As highlighted by Lampert & Ervin-Tripp (1993: 173) it is important to note that each line or unit of analysis does not necessarily constitute a codable case (case here refers specifically to a segment that meets the coding requirements as outlined by the researcher). However, defining lines as the unit of analysis made the transcripts more amenable to a flexible coding approach. For example, a single line could be coded to a particular concept or where the discussion relevant to a particular theme took place over a number of lines, these could then be grouped together and coded appropriately.

The basic rules of thumb used in developing both the concepts in Decision Explorer™ and the index nodes in NVivo™ include those discussed by Lampert & Ervin-Tripp (1993):

1. Relevance to the research question.
2. Where possible, mutually exclusive (although this *does not* mean that a case could not be coded into more than one category in NVivo™- although sometimes it meant the creation of new 'joint' categories i.e. those that represent the co-occurrence of two possible outcomes e.g. strongly committed to the decision *and* strongly committed to the organisation).

3. Exhaustive i.e. the coding should be extensive enough to be able to provide classification for every case. Initially this involved the creation of both 'Miscellaneous' and some quite broad categories, which were continually reviewed and revised as the research progressed.

A copy of the final coding record to emerge from this simultaneous mapping and coding process is contained in Appendix E.

3.8.5 Analysis of the Cognitive Maps

Once the interviews had been mapped in Decision Explorer™ and coded at the relevant nodes in NVivo™ it was time to begin the data analysis in earnest, although in practical terms this had begun in a preliminary fashion as key issues began to emerge from the data. However, following a roughly linear format, the approach was as presented in Table 3-9.

Table 3-9 Analysis of Cognitive Maps

Within Case Analysis	
Item	**Process**
Construct Composite Map	Construct a composite map for each Decision Conference, made up by merging concepts from each of the individual maps
'Tidying' the Model	➢ Look at size ➢ Detect Orphans ➢ Examine possible Merge candidates
Assess map Coherence	Three measures: ➢ link to concept ratio ➢ proportion of clusters or islands within the map ➢ average chain length within the map
Identify Key Concepts	Identify Head concepts Domain Analysis Central Analysis
Identify Principal Themes	Cluster Analysis
Identify Critical Concepts	Hieset Analysis Potency Analysis
Circular arguments (Vicious or Virtuous)	Loop Analysis

Focus on research questions	Path analysis (e.g. for Research Question 2.3 What is the perceived relationship between Shared Understanding and Commitment to Action? Explicitly exploring the various routes between shared understanding and commitment)
Overview	Case dependent
Across Case Analysis	
Comparison of key themes and patterns across the various cases.	

Each of these steps is discussed in turn, examined from the viewpoint of applying the analysis to one organisation at a time.

3.8.5.1 Constructing a Composite Map

The first task in the analysis of the interviews was to construct a composite map for the Decision Conference in question. This was accomplished by merging topic areas rather than complete individual maps. For example, a concept would be selected from the individual map and copied into the new group map. All of the remaining maps were then checked for matching concepts and associated links. Where a match was located, the interview identification number was then included in the concept text box, indicating where support for that concept had come from.

To double check that all of the elements had been considered, all constructs and their associated links on the individual maps were manually checked and crossed off as they were transferred to the group map. It is possible to automatically merge maps in Decision Explorer™, however it was felt that such a process would have increased the risk of misinterpreting concepts and their existing links prior to the merge. The chosen approach was perhaps a little more cumbersome, but was seen as more rigorous.

3.8.5.2 Tidying Up the Composite Map

Explore the Size of the Model

By using the *SIZE* command it was possible to determine both the number of concepts and the number of links within the model. From this command a ratio of links to concepts was also calculated. Eden & Ackermann (1998) suggest that a link-to-concept ratio of less than 1:1 indicates a possible insufficiency of links, while an extremely high ratio may indicate that the model contains redundant links. For

example, there may be a link from A to B to C to D as well as one from A to C and B to D etc. These needed to be reviewed to ensure that they were indeed alternative lines of argument.

As a higher ratio indicates a greater degree of interconnection of concepts it has been argued that this may also indicate a higher level of cognitive complexity (Eden & Ackermann 1992: 313). Jenkins & Johnson (1997) also relate this notion of complexity to cohesion (see 3.8.5.3), although it should be noted that this measure is also partly dependent upon the agenda and skills of the mapper (Eden & Ackermann 1998; Eden & Ackermann 1992), where inexperienced mappers tend to include a higher number of links.

Detect Orphans

As a model is built, it is possible that concepts are entered but not linked during the process. The *ORPHAN* command located those concepts that exist in the model but had not been linked to other concepts.

Detect Duplicate Concepts

A text search (*FIND*) was conducted to locate instances of the same word or words with similar meanings. Where both the meaning and context justified the action, these were subsequently merged.

3.8.5.3 Evaluating Coherence of the Cognitive Maps

One of the questions worth asking with the Composite Maps was whether they presented a coherent view of the Decision Conference process as experienced by this group. As Jenkins & Johnson (1997: 7) argue:

> In this context coherence relates to the concepts of differentiation and integration, which allow an individual to make sense of a potentially complex domain. A map that is highly fragmented indicates that there is no coherent train of thought, whereas a highly connected map implies a greater understanding of the linkages between concepts and therefore a more coherent view of the issue

Three measures of coherence were applied here, based on Jenkins & Johnsons' (1997) discussion of this topic. The first was the link to concept ratio as discussed above (see 3.8.5.2 Tidying Up the Composite Map).

The second measure was the proportion of clusters or islands within the map, represented by a 'cluster index'. The cluster index varies from 0 for a highly fragmented map to 1 for a 'tight' map where the concepts are highly interrelated. Generally, the higher the index, the higher the level of complexity (Jenkins & Johnson 1997: Eden & Ackermann 1992).

The final measure suggested is of average chain length within the map. As causal mapping is seen as being concerned with representing patterns of explanation (Huff 1990), Jenkins & Johnson (1997: 7) argue that a greater degree of explanation represents a more coherent view.

3.8.5.4 Identifying Goals and Key Concepts

The next step in the analysis was to identify the potential goals, key issues and their links. The main forms of analysis used to accomplish this included the identification of head concepts, central analysis, domain analysis and the collapse function.

Identifying Goals

'Goals are defined as those concepts that are 'good in their own right' (Eden & Ackermann 1998). These are generally concepts that are at the top of the map so one way of locating these were through the command LH (List Heads). Head concepts are those that have no further links leading to other concepts (i.e. no further consequences). Similar to the ORPHAN analysis, this command also helped to identify concepts that perhaps needed to be further linked to other concepts in the model.

Locating Key Issues

The Domain analysis (*DOMAIN* from the Analysis menu) examines each concept and calculates how many concepts are immediately related to it (i.e. directly linking in or out of the concept). Through this it was possible to identify which concepts

were the best elaborated or had a high density of links around them, thus indicating which were the 'busiest' and thus likely to indicate a key issue to emerge from the interviews(Jones 1994; Brightman 1998). The output of a Domain analysis is a list containing the concept titles and the number of links in and out of the specified concepts.

Central analysis (*CENTRAL* from the Analysis menu) is complementary to Domain analysis, however it looks beyond the immediate links and examines the relationship of the concept to the rest of the map (Brightman 1998: 18). This results in a CENT score that reflects both the number of concepts traversed and the bands or layers out covered. Each concept is weighted according to how many concepts are traversed in its Band level. All the concepts found at level one are divided by one, all concepts at level two are divided by two, and so on, up to the specified Band level (or the default of Band level 3). Each band score is added together to give a total overall score for each concept in the input set. In the output, the central score is given first, with the total number of concepts traversed given second, for example:

Cent Scores Calculated
1 concept name.
12 from 22 concepts
For concept 1, 12 is the Cent score, 22 is the total number of concepts traversed (Jones 1994)

Concepts thus identified through both the Domain and Central analysis were likely to be key issues. By comparing the results from the Domain and Central analysis, a form of triangulation took place. As Eden & Ackermann 1998: 405 – 406) note:

> If an issue appears in both lists, it suggests it is both locally and globally significant, confirming its position at the core of a potential key issue. While a construct that has a high domain score is more likely to have a high central score, sometimes this is not the case. It may be a relatively local phenomenon on the periphery of the map. Alternatively, a construct which, on its own, has a low domain score but acts as a bridge between two high domain scoring constructs will score highly on a central analysis. This bridging concept is of interest because without it the map may split into well-separated clusters.

An important point is implicitly raised here by Eden & Ackermann (1998) with the use of terms such as 'it *suggests'*, 'more *likely'* and '*may* split'. That is, while the functions performed by the software were an invaluable asset in the analysis, the

ultimate responsibility for the analysis still lay with the researcher. Thus the results of any of these processes still required viewing in context and judgments made regarding interpretation. This point is relevant to all of the analysis carried out in this study.

However, once the results of the preceding analysis had been carefully considered a decision was then made regarding which concepts could effectively be identified as potential key issues. At times elaborating concepts were also drawn in, in order to provide a context for the key issue identified. All of these concepts were then added to a new appropriately named set, for example an abbreviation for 'potential key issues' such as 'PKI'.

This set was then mapped, essentially capturing the core of the perceived Decision Conference experience. Where links between these important concepts were not evident in this summary map, the map was then collapsed on to the key issues set (*COLLAPSE* from the Analysis menu). 'Collapse' is a process that hides all other concepts that are not part of the set, but retains links (whether direct or going through other concepts) between concepts in the set (Jones 1994). In some instances, the result was also placed in another new set ("Key Issues") for subsequent analysis, interpretation and presentation.

3.8.5.5 Identifying Principal Themes

The next stage of the analysis sought to identify the principal themes to emerge from the interviews. This process was facilitated through use of the clustering function in Decision Explorer™. The clustering function (*CLUSTER* from the Analysis menu) in Decision Explorer compares pairs of constructs to determine the similarity of links, using the Jaquard Co-efficient (Eden & Ackermann 1998: 407). By assessing the context of each construct, the process places those with sufficient common context in the same cluster.

There are a number of options available when clustering and depending on which options are specified the resulting groupings may differ. Unless otherwise specified, the approach used in this study was to analyse the overall map with no 'seed' sets (i.e. not specifying that clustering should be seeded from one particular set or group of concepts) and comparing direct links regardless of direction. This produced an overview of the model, where each set was a relatively isolated cluster of ideas i.e.

> Essentially (this) cluster analysis tries to determine relatively isolated 'islands' of concepts where there is a minimum of 'bridges' between the islands. Therefore the contents of the clusters are mutually exclusive.
>
> (Banxia Software Pty Ltd 1998: 53)

It is worth noting that clustering also assumes that the model is both comprehensive and normalised (criteria which cognitive maps generally do not fully satisfy), so again the results needed to be taken as a suggestion rather than a definitive set of themes. As an additional check for reliability of the themes to emerge from the composite map, these were checked back against the themes that emerged from a preceding analysis of the individual maps.

Where there was any uncertainty, these clusters were also compared to the key issues that emerged from a basic content analysis of each of the interviews in NVivo™. At times, based on an examination of additional concepts in the Domain and Central analysis, a review of the transcripts and a closer visual examination of the full map, concepts were either added to or removed from the set. An example where additional concepts might be incorporated would be where they were seen as providing critical links and context for visual presentation of this set. As Decision Explorer™ places the results of any cluster analysis in sets, these proved quite amenable to further examination and modification for subsequent analysis.

As part of the cluster analysis, a review of the cluster contents is conducted by exploring either individual concepts or small logical groupings. This discussion also incorporates an examination of the links to the concepts at the heart of this study – computer modeling, shared understanding and commitment.

3.8.5.6 Potent Concepts in the Maps

To determine the most critical concepts in each of the composite maps, a series of Hieset analyses were conducted, followed by a Potency analysis (*HIESET* and *POTENCY* on the Analysis menu).

A Hieset analysis explores all of the chains of argument supporting each member of the specified group (e.g. on a specified cluster set). From here it is possible to see which concepts were well elaborated and which were not. Hieset also clearly presents the chain of logic related to the chosen group (or 'seed set').

Having conducted a Hieset analysis, the next step was a Potent Analysis. *Potent* examines the result of the Hieset analysis, identifies which concepts appear in the most number of Hiesets thus produced and thus determines their 'potency' within the model.

3.8.5.7 Feedback Loops – Vicious & Virtuous Circles

Eden & Ackermann (1998) regard the existence of feedback loops within a map as extremely significant (these may be located by using the *LOOP* function in the Analysis menu). A loop represents a circle of links that starts from one concept and ends up back at the same concept.

Where loops existed, they were identified as either representative of positive feedback (vicious or virtuous cycles of behaviour) or negative feedback (self-controlling behaviour) and were examined for their impact on the overall map and associated goals or strategic issues.

3.8.5.8 Focusing on the Research Questions

Although the preceding analytical stages also provided information relevant to the research questions, this further step was incorporated to ensure that each question could be addressed specifically. The primary tool here was the use of path analysis in Decision Explorer™ to explore the various paths (or routes) between specified concepts. For example, in order to address the Research Question 2.3 What is the perceived relationship between Shared Understanding and Commitment to Action? Various path analyses were conducting explicitly tracing the various routes (if any) between shared understanding and commitment. The findings from these analyses were then reviewed and discussed, incorporating additional insights from the earlier discussions where relevant.

3.8.5.9 Comparisons Across Cases

After reviewing findings from the individual cases, an 'Across Case' analysis was conducted in order to explore common themes and key differences.

This approach recognises both the need to inform practitioners and educators in this field and the importance of variation between participating organisations that cannot be explored unless the cases are compared. Thus, while preserving holistic data from

specific sites, it was important to conduct more general comparative analyses concerning the role of computer modeling and development of shared understanding and commitment to action in Decision Conferencing.

3.8.5.10 Some Final Comments on Analysis

Whilst this section has reviewed the primary forms of analysis used with respect to the qualitative data in this study, it is worth bearing in mind that what is presented here is an outline only. As themes emerged and new insights were created, this opened up other avenues for exploration. At times, the analysis needed to focus more heavily on one or two key concepts in a model or review more closely those lone voices that told a different story (a form of negative case analysis). Where an approach differs from that outlined here, a discussion of the method and rationale is provided.

3. 9 Quantitative Data Analysis - The Survey Instrument

3.9.1 Coding the Quantitative Data

Coding for the survey instrument was a much more straightforward process than that involved with the interview transcripts. Within the close-ended questionnaire, the codes consisted of the numerical response (on a Likert Scale from 1 to 7) to each of the questions asked. This was predetermined in the design of the questionnaire. Upon completion the responses to the survey were entered into the statistical analysis software, SPSS (V10 for Windows) for subsequent analysis.

3.9.2 Analysis of the Quantitative Data

The analysis of the quantitative data focused on the links between computer modeling and shared understanding, and shared understanding and commitment to action. Analysis of responses to the structured items contained in the survey instrument involved:

- Assessing the validity of the measures for commitment used within this study through a comparison with the literature and a check to see how the measures correlated with a simple measure of commitment (i.e. Q14).

- Assessing the reliability of both of the measures of commitment (goal commitment and commitment to choice) was accomplished using Cronbach's Alpha measure of reliability.
- Generating summary statistics including frequencies and descriptive statistics (e.g. summary information about the distribution, variability, and central tendency of a variable).
- An exploration of the data (e.g. through graphical representation).
- Examining correlation between computer modeling and shared understanding, and shared understanding and commitment to action to establish if and how variables were related.

The results of this analysis are presented in Chapter Four: Analysis of Quantitative Data.

It is important to note that the analysis and findings reported in Chapter 4: Analysis of the Quantitative Data have been undertaken to explore the basic claims made in the extant Decision Conference literature regarding computer modeling, shared understanding and commitment as specified in the research objectives. There were some items that were included in the actual data collection, however as they were not the focus of this study they will not be examined here. Also, whilst more sophisticated analysis may have been possible with the data collected, only the principal links were explored given the nature and scope of this study and its focus on exploring in-depth the face to face interview data.

The primary focus of this study was the in-depth exploration of the research questions through the face-to-face interviews. However a limited analysis of the fundamental questions tested through the quantitative survey instrument was considered useful in terms of validating the claims regarding the links between computer modeling and shared understanding, and shared understanding and commitment to action.

3.9.3 Assessing the Validity and Reliability of the Quantitative Survey Instrument

As discussed above, assessing the validity of the measures for commitment used within this study was conducted through a comparison with the literature and a check to see how the measures correlated with a simple measure of commitment (i.e. Q14)

Assessing the reliability of both of the multi-index measures of commitment (goal commitment and commitment to choice) was accomplished using Cronbach's Alpha measure of reliability.

Where possible, existing validated measures were used in this study (e.g. goal commitment and commitment to choice); however for many of the concepts under examination it was necessary to create measures to collect the data. Where this proved necessary, questions were crafted in consultation with the thesis supervisors and with Decision Conferencing experts and through a careful review of the available literature. In addition, these measures were then pilot tested to ensure they captured the appropriate concepts in a reliable manner.

3. 10 Principles for the Conduct and Evaluation of this Study

3.10.1 An Overview

The issue of research standards is a critical and contentious one in qualitative research. A common criticism is that it fails to adhere to the canons of reliability and validity (LeCompte & Goetz 1982: 31). However, it may also be argued that it is within these differences from the positivist tradition that the value of interpretive research lies. These benefits include the data gathering that necessarily precedes hypothesis formulation or providing a depth of understanding lacking in other approaches.

With regard to evaluation of qualitative data, while there is a side to this debate which does take the view that issues such as objectivity are irrelevant (Roman & Apple 1990) or that quality standards can never be developed for research of this kind (see Smith 1984, in Potter 1996); this study does not adopt this view. Rather, it is agreed that the issue of credibility cannot be ignored, although it does need to be addressed from a different perspective (also refer LeCompte & Goetz 1982; Lincoln & Guba 1985b; Merriam 1988; Lincoln 1990; Potter 1996 and Howe & Eisenhart 1990). As Klein & Myers (1999: 68) state:

> While we agree that interpretive research does not subscribe to the idea that a pre-determined set of criteria can be applied in a mechanistic way, it does not follow that there are no standards at all by which interpretive research can be judged…We believe that it is better to have some principles than none at all, since the absence of

> any criteria increases the risk that interpretive work will continue to be judged inappropriately.

Klein & Myers (1999) then go on to outline a set of seven principles for the evaluation of interpretive field studies. It is these principles that have been utilised in evaluating this study. These are outlined further in the next section.

3.10.2 Collection and Evaluation of the Qualitative Data in this Study

Developed by Klein & Myers (1999) and drawn primarily from anthropology, phenomenology, and hermeneutics, the seven principles for the collection and evaluation of the qualitative data in this study are as follows:

1. The Fundamental Principle of the Hermeneutic Circle

   This principle acts as an overarching principle for all of those outlined below. The point here is that understanding has a circular structure. There is a formal relation between the parts and the whole of a phenomenon. Through an analysis of each part, its meaning and relationship to the whole may be consolidated into an emergent understanding of the whole phenomenon. Also refer Eisenhardt (1989).

2. The Principle of Contextualization

   This principle "requires that the subject matter be set in its social and historical context so that the intended audience can see how the current situation under investigation emerged" (Klein & Myers: 1999: 73). It is not only the information that is gathered, but also the context in which the study took place that provides meaning. See also Creswell (1998); Yin (1989); Marshall & Rossman (1995); Rudestan & Newton (1992) and Lincoln & Guba (1985b).

3. The Principle of Interaction Between the Researchers and the Subjects

   Here Klein & Myers (1999) maintain that the data in the study is not just something waiting to be picked up by an uninvolved participant, but rather that the interaction between the participants and the researcher is part of the whole process of investigation and understanding. This also ties in with Potter's (1996) notion of *Intersubjectivity* i.e. the middle ground where it is

believed that while researchers are never purely objective, nor are they limited to pure subjectivity. It is possible to reach a shared perspective.

4. The Principle of Abstraction and Generalization

As Stoeker (1993: 181) notes in regard to case studies:

> ..while we can accurately specify the causal process within the case, generalizing is more difficult.

However this does not mean that there is not a case for applying the findings to other circumstances. As Klein & Myers (1999: 75) note, "unique instances can be related to ideas and concepts that apply to multiple situations", however these generalizations and abstractions need be made having given careful consideration to the study details and context when doing so. This principle is closely aligned to Guba's (1981) notion of *transferability* - the extent to which the findings can be applied in other contexts or with other respondents.

Klein & Myers (1999: 75) argue here that the validity of such inferences does not depend on statistical measures but rather on the strength of the logic in both the description of the cases and the conclusions drawn from them. Here Klein also concurs with Walsham (1993 in Klein & Myers 1999: 75) that there are four main types of generalizations that may thus be made from interpretive case studies i.e.

- The development of concepts
- The generation of theory
- The drawing of specific implications
- The contribution of rich insight

In applying this principle, the information garnered through the application of principles one and two is related to "theoretical, general concepts that describe the nature of human understanding and social action" (Klein & Myers 1999: 72).

In terms of determining how broadly the findings may be applied, the primary strategy in this study is the provision of "thick description" (Creswell 1994; Denzin 1994; Rudestan & Newton 1992; Lincoln & Guba 1985a), so that

anyone interested in transferability will have a solid framework for comparison (Merriam 1988).

5. The Principle of Dialogical Reasoning

   As the research design forms the 'lens' through which the data is viewed, this principle requires that the researcher be aware or 'confront' the preconceptions which guided the original study design. This is also part of the hermeneutic idea that our own backgrounds and 'pre-judgment' plays a role in how we come to understand phenomena. This principle to some extent incorporates Guba's (1981) notion of *confirmability* i.e. determining the degree to which the findings are the product of the focus of the inquiry and not the researcher's biases.

   The Principal of Dialogical Reasoning requires that at the very least the researcher outlines the research approach and philosophical foundations of the study and is prepared to modify or abandon ideas that are not supported by the research findings.

6. The Principle of Multiple Interpretations

   This principle "requires sensitivity to possible differences in interpretations among the participants as are typically expressed multiple narratives of the same stories or the same sequences of events under study" (Klein 1991: 72). The presentation of multiple viewpoints and alternative perspectives is a characteristic of this principle.

7. The Principle of Suspicion

   Influenced by the work of critical theorists such as Habermas and Foucalt, this principle may be described as not always taking the data at face value, but rather 'reading' the utterances for deeper meaning. As Klein & Myers (1999: 78) state:

   > (this approach) points the researcher to 'read' the social world behind the world of the actors, a social world that is characterized by power structures, vested interests and limited resources to meet the goals of various actors who construct and enact this social world.

This principle, along with The Principle of Dialogical Reasoning, is about probing for deeper meaning.

The preceding discussion outlines the seven principles presented by Klein & Myers (1999). However, before concluding, it is important to note that the application of these principles – and the degree of emphasis on each – is partly determined by the study in question. It is also worth noting that the principles are inter-dependent and consequently need to be considered together in assessing the overall plausibility and cogency of the account. For a review of how these principles have been applied within this study, refer to Chapter Seven: Discussion and Implications.

3. 11 Limitations

This section outlines both actual and perceived limitations in this study, seeking to address concerns wherever possible. Many of these have been addressed throughout the chapter; however they are drawn together here to highlight the careful consideration given to the design and methods adopted within this study.

1. *The case study approach is limited in terms of representativeness and generalisability. Additionally, only two cases were fully explored in the study (24 participants in total)*

While findings from case studies can be valuable, the method has limitations. One of the major criticisms is that of its limitations in terms of representativeness and generalisability. It may be argued that because of the exclusive focus on a particular individual or group, the researcher has no way of knowing whether that individual is typical of that group in general. Nevertheless, in terms of the conceptual foundations for this study, the use of the case study approach and the focus on these two cases is seen as appropriate for the following reasons:

- As this is the first study of its kind there were few existing benchmarks on which to base a more comprehensive, generalisable quantitative study. The focus of the study was necessarily exploratory. At the time of the research it was unclear how valid the measures were or whether in fact the survey was missing key variables. This necessitated an extremely in-depth study of participants' experiences. Two cases, involving 24 interviews with associated individual maps and case composite maps, provided a rich abundance of data.

- The case study literature also supports even the use of single cases as a valid means of adding knowledge (e.g. Morse 1994; Yin 1989; Eisenhardt 1989; Bryman 1988). Also refer to Section 3.3.2 Which Approaches to Use? for further discussion of this issue.
- Case studies are the preferred research strategy when 'how', 'what' and 'why' questions are being asked, when the researcher has little control over the event or when the research is being carried out in a real life context (Yin 1988; Burns 1990).
- Case studies also allow a researcher to 'reveal the multiplicity of factors [which] have interacted to produce the unique character of the entity that is the subject of study' (Yin 1988: 82).
- It has also been argued (Burke Johnson 1997) that 'rough generalizations' can be made from qualitative research. The position taken here is that the outcomes may be generalized to other situations "to the degree that they are similar to the people, settings, and times in the original study". This generalisation based on similarity is referred to as *naturalistic generalization* (Stake 1990). Campbell (*Campbell* 1986) uses the term *proximal similarity* and recommends checking for this when seeking to apply the findings from one study to other situations.

2. The study is limited to public sector organisations within the United Kingdom.

As touched on throughout this chapter, this was a deliberate choice for the following reasons:

- In order to ensure relevance and to clearly address the research question in a manner commensurate with the paradigm guiding this study, the most relevant choice of research subjects was real organisations with real issues to address.
- Given that this was a field study focusing on actual organisations with real issues to address, this study needed to take place wherever the actual Decision Conferences occurred. While Curtin University of Technology is also involved in running Decision Conferences, to avoid unnecessary biasing of the results it was considered desirable to explore the research questions with organisations that had no previous contact with either the researcher or with Curtin. Contact was therefore made with a consulting firm in the UK that ran Decision Conferences

for their clients. The consulting firm approached a number of their clients and arranged access for this research.

- The common background of the various groups involved in the study is in fact a strength in that it ensured some degree of commonality between the groups in terms of factors such as nature of the organisation, decision making style, cultural background and the nature of the issue to be addressed. This enhanced opportunities for making comparisons between the various groups' perceptions of the Decision Conference experience.

3. Small sample size for the quantitative study

The small sample size was a result of the following factors:

- The focus of the study was exploratory. At the time of the research it was unclear how valid the measures were or whether in fact the survey was missing key variables.
- The quantitative study was a secondary focus of the study and conducted in order to add a further layer of meaning.
- Accessing sufficient numbers of participants in Decision Conferences is difficult due to the often highly confidential nature of the meetings.

4. The mixed method research merely represents "mixed-up" approaches deficient in paradigmatic or theoretical grounding.

In presenting in detail the rationale behind the research design and methods in this study, this chapter refutes this claim and has demonstrated the relevance of the mixed method approach adopted. As Mactavish & Schleien (2000) note, this design is especially useful when

> …the aim is to generate knowledge that: (a) facilitates understanding of complex issues within naturally occurring contexts, (b) enhances confidence in the trustworthiness and credibility of research findings, and (c) provides a greater breadth and depth of information than otherwise would be possible with a single approach.
>
> (Mactavish & Schleien 2000: 160)

There are also a number of precedents for this approach (Pernice 1996; Shepard et al. 2002; House 1994; Phillips 1990a; Parkhe 1993).

5. *Possible difficulties with memory recall as a consequence of allowing a gap of up to 12 months between the Decision Conference and participation in the study.*

While it was acknowledged that there was the potential for some difficulty with recall of the events and associated perceptions in the Decision Conference, there were a number of reasons for adopting this time period i.e.

- It was thought that a 12 month period would be recent enough to ensure that participants would be able to recall the events which transpired, yet would also allow a sufficient number of interviews to be conducted within the time constraints inherent in a PhD study. Note that in the end, the data collection occurred within 5 months for all except one of the Decision Conferences. The exception was within 8 months.
- Documentary evidence of what had transpired during the Decision Conference was also collected and was available as a prompt for participants if required.
- The issues addressed during the Decision Conference were significant ones for participants and more likely to be recalled.
- The Decision Conference itself was a novel experience for many and stood out from the myriad of meetings participants normally attended. A study by McCartt & Rohrbaugh (1990) also supports the view that Decision Conferences are memorable occasions for participants and as a consequence recollection of events is not difficult (McCartt & Rohrbaugh 1990: 40).
- Attempting to interview participants during or immediately after a Decision Conference would have been problematic in terms of addressing confidentiality issues at the time and would have not provided participants with an opportunity to reflect on the process.

6. *The Study Focused on only one decision-making process i.e. Decision Conferencing*

As discussed earlier, as this is the first study of its kind there were few existing benchmarks on which to base a more comprehensive, generalisable quantitative study. The focus of the study was necessarily exploratory and to try to examine the issues across decision-making approaches, whilst the particular aspects of Decision

Conferencing were not yet clarified would have added little to knowledge regarding this area.

7. *The Primary focus for all except one of the Decision Conferences was resource allocation.*

Decision Conferences are run with many different purposes in mind. These include resource allocation decisions, strategic planning, and organisational structure – in fact for almost any complex issue facing an organisation. While this common background means that we remain largely uninformed with regard to whether a different focus for the conference would have significantly altered participant's experiences, this was seen as acceptable for the following reasons:

- The common decision focus again provided some degree of commonality between the groups and enhanced opportunities for making comparisons between the various group's perceptions of the Decision Conference experience.
- Resource allocation was a major area of consulting activity for the consulting firm in the UK that ran Decision Conferences for their clients. It would have been much more difficult to arrange access to a more disparate group.
- The fact that this is a major area of interest for both practitioners and organisations meant that any findings would be of direct benefit to these groups, as well as potentially contributing to the Decision Conference theory.

In addition, the researcher adopted the following strategies drawn from Silverman, Ricci & Gunter (1990); Patton (1999); LeCompte & Goetz (1982); Guba (1981); Lincoln & Guba (1985a) and Potter (1996) to operationalise some of the above principles and to enhance the credibility of the study:

- Sampling was logical and a clear statement made about the extent to which generalizations can be made; application of rigorous techniques and methods for the gathering and analysis of high-quality data, with attention to issues concerning validity, reliability, and triangulation;
- The researcher possessed appropriate skills - interpersonal skills, research skills, experience in interviewing (e.g. researcher possessed extensive experience as a market research consultant).

- The use of appropriate respondents – actual Decision Conference participants.
- Interviewing strategies - targeted interviews for specific issues; field debriefing; collection of pertinent documents to validate information.
- Data analysis and interpretation - each case followed the same topical outline to facilitate comparative analysis; analytical approaches, findings and interpretations were meticulously documented and presented.
- Case study review - internal: review by researcher and supervisors.

In summary, this section has presented a number of potential limitations regarding the design of this study including issues such as the appropriateness of a mixed method approach, the nature and size of the sample and concerns regarding the application of findings to other contexts. Each of these has been addressed in turn, outlining the rationale behind the choices made and indicating the careful consideration given to the overall design and method adopted within this study. In addition, a number of strategies to further enhance the credibility of the study have been outlined.

3. 12 Ethical Considerations

The research in this study closely follows the principles outlined in the *National Statement on Ethical Conduct in Research Involving Humans* (the Statement), which consists of a series of Guidelines made in accordance with the National Health and Medical Research Council Act 1992 (NHMRC 1999). Curtin University subscribes to these principles.

In considering research that involves human participants, this statement identifies the ethical principles and values, which should govern various research approaches. It provides guidance for researchers, ethics committees, institutions, organisations and the public on how such research should be designed and conducted so as to conform to those principles and reflect those values.

This study has been conducted in accordance with these principles, with specific attention to the following:

- Integrity, respect for persons, beneficence and justice
- Consent

- Research merit and safety
- Ethical review and conduct of research

In addition, the data collection instruments were reviewed and approved by the Curtin Business School Ethics Committee prior to data collection.

3. 13 Conclusion

This chapter reviewed the central research question and presented the case for the design and methods adopted. Having addressed the conceptual foundations for this study, including an examination of the specific ontological and epistemological perspectives underlying this particular investigation this chapter reviewed the various research traditions related to Group Support Systems (GSS) in general and Decision Conferencing in particular, placing the research in context.

The rationale behind the choice of cases and individual participants was presented followed by a meticulous description of the data collection and analytical procedures presented. The chapter closed with a discussion of a set of guiding principles suggested for the evaluation of this study, reviewed possible limitations to the approach chosen and addressed relevant ethical issues.

On these foundations, this paper proceeds with a detailed description of the findings that emerged from this study.

4 CHAPTER FOUR: QUANTITATIVE DATA ANALYSIS

4. 1 Background

As discussed in Chapter Three: Research Method and Design, the quantitative data collection consisted of administering structured self-complete questionnaires over an 8-week period to participants from seven different Decision Conferences. Designed as an adjunct to the qualitative research, the quantitative survey instrument took between ten and fifteen minutes to complete. Upon meeting the participant, the researcher outlined the purpose of the study and discussed the process involved in completing the questionnaire. The researcher handed the survey to the person involved, briefly went through the contents and what was required, then waited while it was completed. A total of 70 surveys were collected.

The data was collected three to six months after a series of Decision Conferences in six local and regional government organizations in northern England. All of the Decision Conferences followed a similar structure and process and all except one involved strategic resource allocation using the EQUITY™ resource allocation software. The one exception was a strategic choice situation that used the HiVIEW™ software. A total of seventy questionnaires were returned and used in the analysis, but missing items in two of these precluded them from the analysis.

The focus for the quantitative data collection was the central Decision Conferencing concepts of commitment and shared understanding and an examination of possible links with computer modeling. Gathering of the quantitative data was largely seen as an opportunity to inform the main study which focused on the qualitative data analysis.

The questionnaire had three parts. Each was given to the participant for completion and collected before moving on to the next part. As each part was handed to the participant, there was a brief discussion regarding the content of the questionnaire and some clarification of the key concepts e.g. outcome and computer modeling. The three parts were as follows:

Part A (1 side A4 sheet):	Mostly a measure of commitment to outcomes **directly after** the Decision Conference (participants needed to try and recall how they felt at that time).

Part B (1 side A4 sheet): Almost identical to the above although the questions changed tense. Mostly a measure of commitment to outcomes **at the time of the interview.**

Part C (1 double sided A4): General questions re the Decision Conference and focused on computer modeling as it related to shared understanding and commitment

Refer to Appendix A for a copy of the Quantitative Survey Instrument.

The next section reiterates the key research questions in this study. This is followed by a discussion of the results of the quantitative data analysis in relation to commitment to action, shared understanding, and the modeling factors influencing them.

4. 2 Focus of the Quantitative Data Analysis

In reading this chapter, bear in mind that, in summary, the aims of this study were to investigate the basic premises of Decision Conferencing, namely that:

(i) the Decision Conferencing process leads to a shared understanding among the participants of the issue(s) to be addressed; and

(ii) the Decision Conferencing process, through generating shared understanding, leads to the development commitment to action;

and that as a side issue, the research also aimed:

(iii) to establish a valid and reliable measure of the concept of commitment to action.

As a consequence the analysis and findings reported in this chapter focus explicitly on these issues. As discussed in Chapter Three, Section 3.9.2 (Analysis of the Quantitative Data), whilst further exploration and more sophisticated analysis may have been possible, only the principal concepts and links were explored given the nature and scope of this study and its focus on exploring in-depth the face to face interview data.

However, despite its limited scope, this exploration of the quantitative data was seen as a useful addition to the study in terms of attempting to possibly validate the claims made in the literature regarding the links between computer modeling and shared understanding, and shared understanding and commitment to action. The possibility

of developing a valid measure for commitment to action in Decision Conferencing - absent until now - was also seen as a potentially valuable contribution to the field.

4. 3 Findings

As indicated in the introduction, a total of seventy questionnaires were returned and used in the analysis, but missing items in two of these precluded them from the analysis. A discussion of the results from the analysis of these questionnaires in relation to commitment to action, shared understanding, and the modeling factors influencing them now follows.

Individual questions have been addressed in Section 4.3.1: Descriptive Analysis. In this section the specific questions addressing commitment, shared understanding and the role of computer modeling are briefly reviewed. This is followed in Section 4.3.2 by an examination of the reliability of the two multi-item measures of commitment used in this study. Section 4.3.3 Modeling, Shared Understanding and Commitment to Action then presents the mean values and correlations between the major concepts.

4.3.1 Descriptive Analysis

All items were measured on a 7-point Likert scale, which included some items reversed to avoid the problem of response bias. Participants were asked to indicate the extent to which they agreed with a series of statements i.e. “Please indicate the extent to which you agree with the following statements where 1 indicates that you strongly disagree with the statement and 7 indicates you strongly agree”.

4.3.1.1 Commitment – Direct Measure

Table 4-1 presents the descriptive statistics (spread, mean and standard deviation) in relation to the direct measure for *Commitment* contained within the survey. Results are presented for both Part A and Part B responses.

Table 4-1 Direct Measure of Commitment to Workshop Outcomes

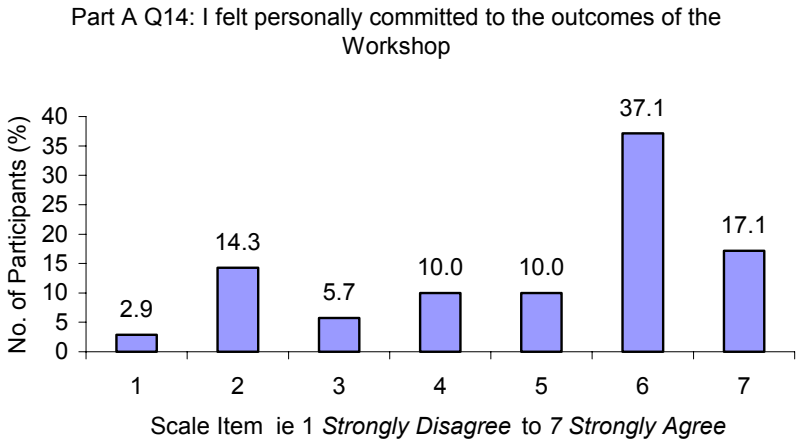
Variable Name, Question No. & Item	N	Min	Max	Mean	Std. Dev.
ICOMITD1 Q14: I felt personally committed to the outcomes of the Workshop	68	1	7	4.96	1.81
ICOMITD2 Q34: I feel personally committed to the outcomes of the Workshop	68	1	7	4.71	1.93
Valid N (listwise)	68				

Results on both items fall between 4.7 and 5 on a seven point scale, indicating a leaning toward commitment; however none of the means scored at the highest levels of commitment.

Part B indicates a slightly lower mean, however with a standard deviation of 1.93 this is not a significant difference. In both Part A and Part B, the high standard deviation indicates a large degree of variability. This suggests a lack of agreement among participants with some strongly agreeing that they felt personally committed to the outcomes of the Workshop and some strongly disagreeing.

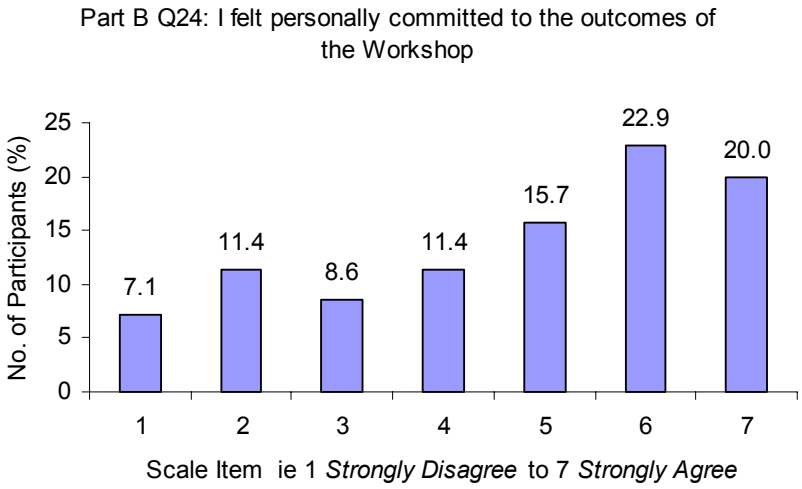
The frequencies for Question 14 and Question 34 (*I felt personally committed to the outcomes of the Workshop*) further illustrate this point. Figure 4-1 and Figure 4-2 demonstrate that participant responses were distributed across the 7-point scale, with a higher proportion indicating a stronger level of agreement with this statement (i.e. 5, 6 and 7).

Figure 4-1 Q14 Frequencies



In looking at Figure 4-2 it is interesting to note that the number of people strongly agreeing with the statement was slightly less for Part B (i.e. where participants were asked about how they felt now) than it had been for Part A (how they felt directly after the Decision Conference).

Figure 4-2 Q34 Frequencies



4.3.1.2 Commitment (adapted from Kirchmeyer & Cohen, 1992)

Table 2 presents the descriptive statistics (spread, mean and standard deviation) in relation to the three items that make up the *Commitment to Choice* measure, adapted from Kirchmeyer and Cohen (1992). Results are presented for both Part A and Part B responses.

Table 4-2 Commitment to Choice (adapted from Kirchmeyer & Cohen, 1992)

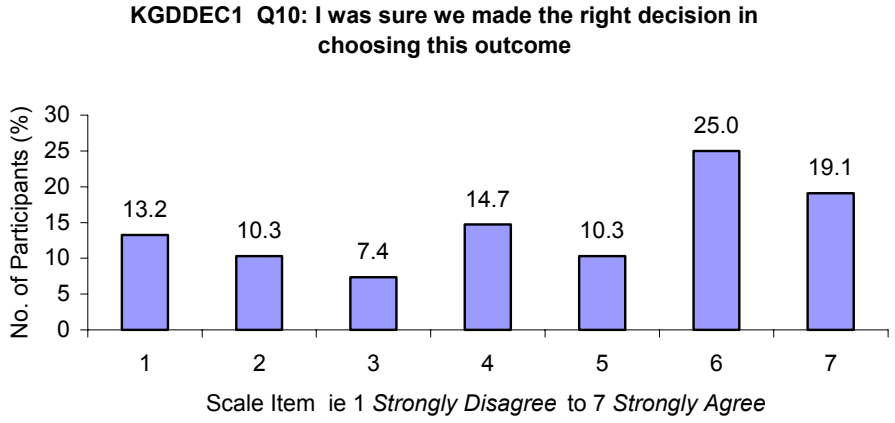
Variable Name, Question No. & Item	N	Min	Max	Mean	Std. Dev.
Part A: How participants felt directly after the Decision Conference					
KGDDEC1 Q10: I was sure that we made the right decision in choosing this outcome	68	1	7	4.50	2.08
KCNFDNT1 Q11: I was confident about our decisions relating to this outcome	68	1	7	4.76	1.92
KCHNGE1 Q12: I felt it would take quite a bit to get me to change my mind about the decision we made	68	1	7	4.49	1.96
Part B: How participants felt at the time of the interview (5-8 months after DC)					
KGDDEC2 Q30: I am sure that we made the right decision in choosing this outcome	68	1	7	4.62	1.95
KCNFDNT2 Q31: I am confident about our decisions relating to this outcome	68	1	7	4.87	1.90

Variable Name, Question No. & Item	N	Min	Max	Mean	Std. Dev.
KCHNGE2 Q32: It would take quite a bit to get me to change my mind about the decision we made	68	1	7	4.59	1.99
Valid N (listwise)	68				

Results on all items fall between 4.4 and 4.9 on a seven point scale, indicating a leaning toward commitment, however none of the means scored at the highest levels of commitment. Part B indicates a slightly higher mean, however with a standard deviation of around 1.9 this is not a significant difference. In both Part A and Part B, the high standard deviation indicates a large degree of variability. This suggests a lack of agreement among participants with some strongly agreeing with the above statements and others expressing relatively strong disagreement.

An example of the frequencies for Question 10 (*I was sure that we made the right decision in choosing this outcome*) illustrates this point. Figure 4-3 shows that participant responses were distributed across the 7 point scale, with a slightly higher proportion indicating a stronger level of agreement with this statement (i.e. 5, 6 and 7).

Figure 4-3 Q10 Frequencies



4.3.1.3 Commitment (adapted from Hollenbeck, Williams & Klein 1989)

Table 4-3 and Table 4-4 (over) present the descriptive statistics (spread, mean and standard deviation) in relation to the nine items that make up the *Goal Commitment*

measure, adapted from Hollenbeck, Williams & Klein (1989) for Part A and Part B responses respectively.

Table 4-3 Commitment (adapted from Hollenbeck,Williams & Klein 1989)-Pt A

Variable Name, Question No. & Item	N	Min	Max	Mean	Std. Dev.
Part A: How participants felt directly after the Decision Conference					
HCOMMIT1 Q1: I was strongly committed to pursuing the implementation of this outcome	68	1	7	4.66	1.88
HEFFORT1 Q2: I was willing to put in a great deal of effort in order to implement this outcome	68	1	7	4.71	1.77
HNOCARE1 Q3: Quite frankly, I didn't care if we implemented this outcome or not	68	1	6	1.69	1.26
HNOGAIN1 Q4: There wasn't much to be gained by trying to implement this outcome	67	1	7	2.45	1.69
HREVISE1 Q5: At the time it was quite likely that this outcome would need to be revised, depending on how things went	68	1	7	5.19	1.76
HDROP1 Q6: I felt it wouldn't take much to make me abandon this outcome	68	1	7	3.38	2.15
HUNREAL1 Q7: I thought it was unrealistic for us to expect to implement this outcome	68	1	7	3.50	2.12
HTOUGH1 Q8: Since it wasn't really possible to tell how tough this outcome was to implement it was hard to take it seriously	68	1	7	2.91	1.84
HAIM1 Q9: I thought this outcome represented a good package to aim for	68	1	7	4.72	1.95

The table above indicates that on the whole participants felt relatively committed to pursuing implementation of the outcome and expressed a willingness to put some effort toward this. There was general, although not strong, agreement that the outcome represented a good package to go for. Some clues towards people's slightly ambivalent feelings here were indicated in the higher response to Q5 i.e. that even at the time many felt that the outcome would need to be revised. There is also some uncertainty evident in the responses to Q6 and Q7 regarding whether it was realistic to expect to implement the outcome and whether participants felt they were likely to abandon the outcome.

Table 4-4 addresses the same questions, but gauges participants' perspectives at the time of the interview (between 5 to 8 months after the Decision Conference).

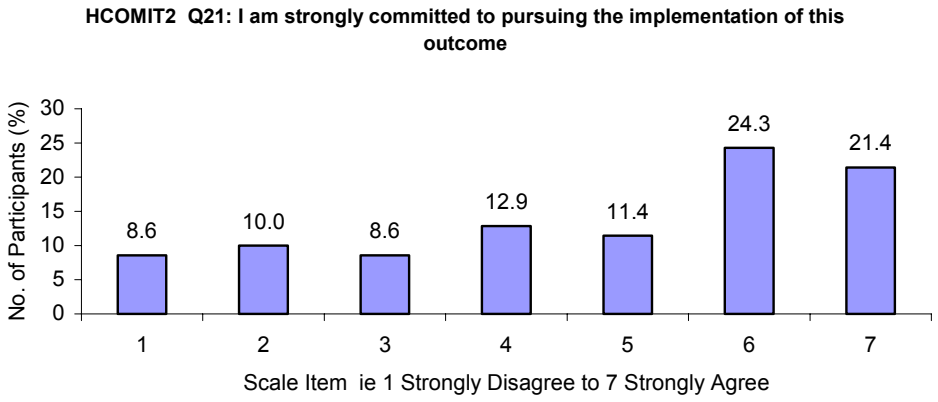
As can be seen here, the picture remains largely unchanged from that described above. Part B indicates a slightly higher mean, however again with a relatively high standard deviation this is not a significant difference.

Table 4-4 Commitment (adapted from Hollenbeck,Williams & Klein, 1989)-Pt B

Variable Name, Question No. & Item	N	Min	Max	Mean	Std. Dev.
Part B: How participants felt at the time of the interview (5-8 months after DC)					
HCOMIT2 Q21: I am strongly committed to pursuing the implementation of this outcome	68	1	7	4.72	1.98
HEFFORT2 Q22: I am now willing to put in a great deal of effort in order to implement the outcome of the Workshop	68	1	7	4.72	1.90
HNOCARE2 Q23: Quite frankly, I don't care if we implement this outcome of not	68	1	6	1.93	1.41
HNOGAIN2 Q24: There isn't much to be gained by trying to implement this outcome	67	1	7	2.55	1.75
HREVISE2 Q25: It is quite likely that this outcome may need to be revised, depending on how things go	68	1	7	5.40	1.76
HDROP2 Q26: I feel it wouldn't take much to make me abandon this outcome	68	1	7	3.34	2.11
HUNREAL2 Q27: I think it is unrealistic of us to expect to implement this outcome	68	1	7	3.75	2.27
HTOUGH2 Q28: Since it isn't really possible to tell how tough this outcome is to implement, it is hard to take it seriously	68	1	7	2.71	1.74
HAIM2 Q29: I think this outcome represents a good package to aim for	68	1	7	4.65	1.96
Valid N (listwise)	67				

In both Part A and Part B, again the high standard deviation indicates a large degree of variability. As with the previous results, this again suggests a lack of agreement among participants with some strongly agreeing with the above statements and others expressing relatively strong disagreement. As an example, Figure 4-4 below illustrates this spread for Q21 (*I am strongly committed to pursuing the implementation of this outcome*). Again, while there are a larger proportion of responses indicating a strong level of agreement, there is a high degree of variability evident here.

Figure 4-4 Q21 Frequencies



4.3.1.4 Shared Understanding

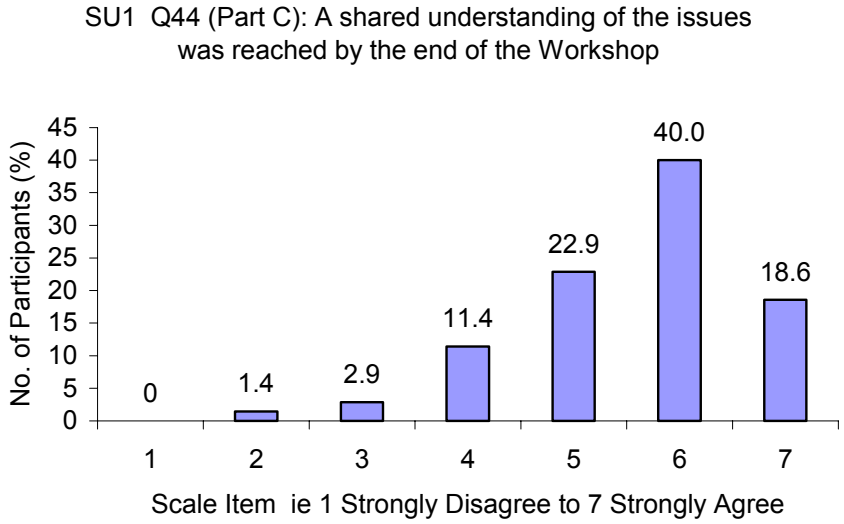
Table 4-5 below presents the descriptive statistics (spread, mean and standard deviation) in relation to the various items related to *Shared Understanding*. Results are presented for Part A, Part B and Part C responses.

Table 4-5 Shared Understanding

Variable Name, Question No. & Item	N	Min	Max	Mean	Std. Dev.
UNDSTND1 Q17 (Part A): At the time I believed that the Workshop really helped me to understand the issues being discussed	68	1	7	5.49	1.42
UNDSTND2 Q37 (Part B): The Workshop helped me to really understand the issues being discussed	68	1	7	5.66	1.44
SU1 Q44 (Part C): A shared understanding of the issues was reached by the end of the Workshop	68	2	7	5.57	1.11
SU2 Q45 (Part C): The modeling process effectively creates a shared understanding of the issues	68	1	7	5.44	1.26
Valid N (listwise)	68				

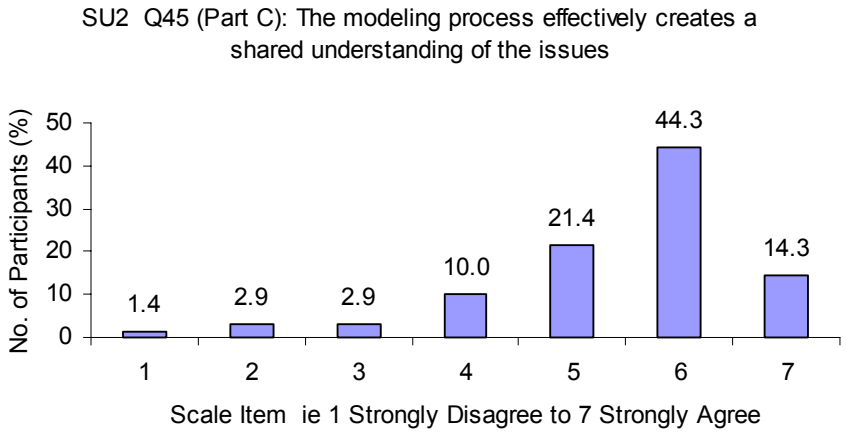
This table indicates relatively strong agreement with the view that the Decision Conference workshop helped participants to understand the issues in question. There was a general view that by the end of the workshop a shared understanding of the issues had been achieved. This is reinforced through an examination of the frequencies associated with Q44, illustrated in Figure 4-5 (below).

Figure 4-5 Q44 Frequencies



The results of the survey also support the view that many of the participants believed that the computer modeling was instrumental in effectively creating this shared understanding.

Figure 4-6 Q45 Frequencies



4.3.1.5 Computer Modeling

Table 4-6 below presents the descriptive statistics (spread, mean and standard deviation) in relation to the various items related to *Computer Modeling*. These items were all drawn from part C of the quantitative survey instrument.

Table 4-6 Computer Modeling

Variable Name, Question No. & Item	N	Min	Max	Mean	Std. Dev.
DCSU Q40: The modeling process helped me to really understand the issues being discussed	68	1	7	5.47	1.31
DCINSGHT Q41: The modeling process provided insight into the opinions of other participants	68	2	7	5.94	.96
EXPLAIN Q42: The modeling process aided in explaining my ideas to others	68	1	7	5.24	1.37
SEEOTHRS Q43: The modeling process assisted in developing my understanding of the opinions of other participants	68	1	7	5.62	1.22
SU2 Q45: The modeling process effectively creates a shared understanding of the issues	68	1	7	5.44	1.26
SENSITVE Q46: Being able to test out differences of opinion in the modeling process (e.g. regarding estimated weights) helped me to develop a deeper understanding of the issues being discussed	68	1	7	5.25	1.26

Variable Name, Question No. & Item	N	Min	Max	Mean	Std. Dev.
CCLEAR Q52: The graphical displays from the modeling made the issues much clearer	68	1	7	5.34	1.33
CCOMBINE Q53: The model was the result of the integration of the ideas of all participants	68	1	7	5.50	1.33
CLOYAL Q54: Group model building leads to plans that will be loyally implemented	68	1	7	4.26	1.58
CMODHARD Q55: I found some parts of the modeling process hard to understand	68	1	7	3.50	1.71
CSU Q56: Displaying the results of discussion in a model developed a better understanding of the points being discussed	68	2	7	5.62	1.16
CRATIONL Q57: The process of building the computer model provided a rational approach to decision making	68	1	7	5.57	1.41
CNFIDENT Q58: Being able to test out differences of opinion (e.g. regarding estimated weights) on the model made me feel more confident about the final outcome	68	1	7	5.43	1.48
BTRSOLN Q59: The modeling process clearly demonstrated which solutions/packages were obviously better than others	68	2	7	5.15	1.43
FEEDBACK Q60: The computer modeling provided immediate feedback regarding the implications of what we were suggesting (e.g. changing weights, altering preference judgments etc)	68	3	7	5.93	1.00
Valid N (listwise)	68				

Whilst both the standard deviation and the minimum and maximum measures presented in the above table indicate a broad variation in the degree of consensus regarding the role of computer modeling, the relatively high mean suggests that in general the modeling process was seen as:

- assisting participants to understand the issues being discussed;
- providing insight into the opinions of others and in clarifying their ideas to others; the graphical displays also assisted here;
- effectively creating a shared understanding of the issues;
- facilitating testing out of differences of opinion e.g. through the use of sensitivity analysis, again linked to understanding of issues; and
- demonstrating which solutions/packages were ‘better’ than others

There was general disagreement with the notion that the participant may have found some part of the modeling process hard to understand.

Overall, the computer modeling process was seen to result from the integration of the ideas of all participants, providing a rationale approach to decision making and

enhancing confidence in the final outcome. The process was perceived to be an effective means of providing immediate feedback regarding the implications of various suggestions from participants.

Despite all of the above, the notion that group model building leads to plans that would be loyally implemented was less well supported, with an Estimated Interval range of between 3.9 and 4.6.

4.3.1.6 Computer Modeling, Shared Understanding & Commitment

Perceptions regarding the perceived link between computer modeling and shared understanding, and shared understanding and commitment are presented in Table 4-7 below.

Table 4-7 Computer Modeling, Shared Understanding & Commitment

Variable Name, Question No. & Item	N	Min	Max	Mean	Std. Dev.
SU2 Q45: The modeling process effectively creates a shared understanding of the issues	68	1	7	5.44	1.26
Sucom1 Q69: In general, developing a shared understanding of the issues leads to commitment to the outcome	68	1	7	5.51	1.32
Valid N (listwise)	68				

The results here indicate agreement with both of these statements. On the whole, participants perceived the computer modeling as generating a shared understanding of the issues and this in turn was seen as leading to commitment to action.

4.3.1.7 Facilitation & Involvement

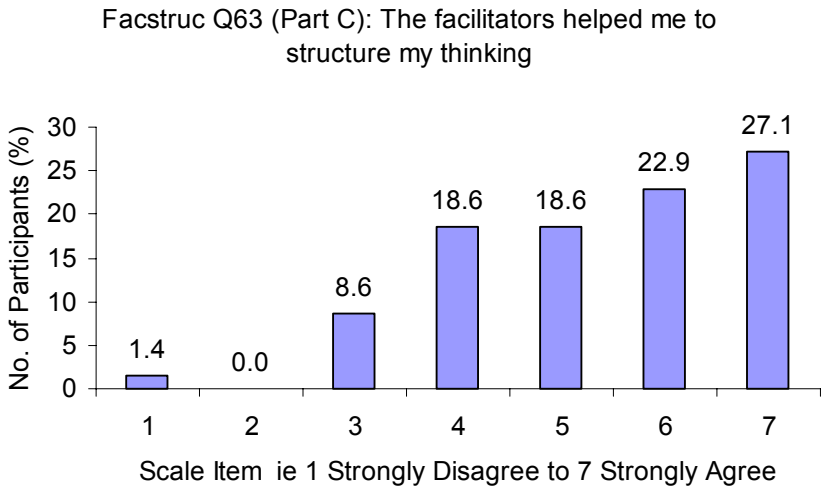
Table 4-8 presents the descriptive statistics in relation to the various items associated with the facilitation and the perceived degree of participant involvement in the Decision Conference process. These items were all drawn from Part C of the quantitative survey instrument.

Table 4-8 Facilitation & Involvement

Variable Name, Question No. & Item	N	Min	Max	Mean	Std. Dev.
EXPLRDIF Q62: Differences of opinion were fully explored	68	2	7	5.00	1.32
FACSTRUC Q63: The facilitators helped me to structure my thinking	68	1	7	5.37	1.42
INVOLVE1 Q64: In general, all group members were involved in the process	68	2	7	5.51	1.29
INVOLVE2 Q65: Everyone had an equal opportunity to be involved in the Workshop	68	2	7	6.10	1.36
Valid N (listwise)	68				

In looking at the standard deviations and frequencies associated with these items, again a degree of variability is evident here. For example, Figure 4-7 illustrates that while the majority of participants indicated some degree of agreement with the view that the facilitator helped to structure thinking during the workshop, this was not the view held by all.

Figure 4-7 Q63 Frequencies



However, a review of the frequencies associated with the other measures (Q62, Q64 and Q65) indicates that while a degree of variation is still evident, the majority of participants expressed relatively strong agreement with all three of these statements. The strongest degree of agreement was expressed with regard to the Q65 (*Everyone had an equal opportunity to be involved in the Workshop*), where 75.6% of participants assigned this a rating of 6 (20%) or 7 (55.7%). This in fact received the highest degree of support of any of the measures in the quantitative survey.

4.3.2 Commitment to Action - Multi-Item Measures

As this data was collected some time after the Decision Conference, the respondents were asked to indicate their commitment levels both immediately after the Decision Conference (3-6 months ago) and now (at the time of the data collection). Table 4-9 presents the reliability statistics (Cronbach's Alpha) and mean scores (on the 1-7 scale) for the two commitment measures. This reveals that both measures have highly acceptable *reliability* levels and that we can accept the mean score calculation as being reliable. In addition, commitment was measured by three direct single-item questions, and the scores on each of these correlated with the two measuring instruments. Both revealed high correlations with each direct question (all significant at the 0.1% level), which supports the *validity* of these instruments as measures of commitment.

In all cases the score is around 5 on the 1-7 scale, this indicating a fairly high level of commitment. Interestingly, the participants believed that their commitment was even higher than just after the Decision Conference, perhaps indicating the effects on commitment are reasonably long term.

Table 4-9 Reliability of Commitment Measures

	Immediately after the Decision Conference		5-8 months later	
	Mean	Alpha	Mean	Alpha
Goal Commitment (9-item)	4.8060	0.8853	4.7512	0.9072
Choice Commitment (3-item)	4.5833	0.8829	4.6912	0.8973

4.3.3 Modeling, Shared Understanding and Commitment to Action

Table 4-10 shows the mean values of, and the correlations between, the four major concepts in the Decision Conference, namely, the modeling process and shared understanding, the level of shared understanding achieved, and the level of commitment (represented by goal commitment and choice commitment), all at the end of the Decision Conference.

Table 4-10 Correlations within the Decision Conference Process

	Modeling Process	Shared Understanding	Goal Commitment	Choice Commitment
Modeling Process	1.000			
Shared Understanding	0.622	1.000		
Goal Commitment	0.560	0.572	1.000	
Choice Commitment	0.516	0.578	0.800	1.000
Mean Values (1-7)	5.43	5.57	4.81	4.58

Note: All correlations had a 2-tailed significance p-value of 0.000

A mean value of 5.43 (on a 1-7 scale) indicates that the participants' strongly believed that the modeling process had a significant on the success of the Decision Conference. Where relevant, examinations of individuals' qualitative interviews revealed that participants felt that the modeling and graphical displays helped them understand the issues, provide insight into and understanding of the opinions of others, helped communicate their own ideas, clarified issues, and assisted in choosing between solutions.

As indicated at the bottom of Table 4-10 all correlations are highly significant statistically with a 2-tailed p-value of 0.000.

The impact of the modeling process was significantly positively correlated ($r = 0.622$) with the general measure of shared understanding supporting the above comments on the process. The general measure of shared understanding was significantly positively correlated with both goal commitment ($r = 0.572$) and choice commitment ($r = 0.578$). All of these results, therefore, supported the hypothesized link between the modeling process and shared understanding, and between the latter and commitment to action. However, while the correlations are statistically significant, the r-squared values of 0.3869, 0.3272, and 0.3341, respectively, demonstrate that more than sixty percent in the variation in both shared understanding and commitment to action remains unexplained. Further investigation was necessary to identify and understand these other factors so that a more complete picture of the Decision Conferencing process may be produced. This understanding emerged through the detailed case analyses presented in Chapter Five and Chapter Six.

4. 4 Conclusion

This section presents an overview of the key quantitative findings drawn from the quantitative data in terms of the central questions being addressed in this study i.e. the pivotal Decision Conferencing concepts of commitment and shared understanding and an examination of possible links with computer modeling. It is again emphasised here that the quantitative data was largely seen as an opportunity to inform the main study which focused on the qualitative data analysis.

Bearing this in mind, the results from this chapter indicate that the majority of participants in the various Decision Conferences emerged with a relatively strong degree of commitment in terms of the single item measure (refer Table 4-1, Figure 4-1 and Figure 4-2). There was a great deal of variability in terms of the two multi-item measures for commitment, although once again there was a majority of participants indicating a degree of commitment to the workshop outcomes (Table 4-1, Table 4-2, Table 4-3and Figure 4-3). The majority of participants indicated that a shared understanding had been achieved during the Decision Conference (Figure 4-5), with a high proportion of the sample stating that the computer modeling was instrumental in achieving this shared understanding (Figure 4-6).

The findings presented here also indicate that the measures 'commitment to choice' and 'goal commitment' are both valid and highly reliable measures of commitment. The analysis also demonstrates the basic hypotheses of Decision Conference theorists, namely that a high level of commitment was achieved, a high level of shared understanding was achieved, and commitment was significantly correlated (positively) with shared understanding. Further, a significant positive correlation exists between shared understanding and the Decision Conference modeling process, which also supports the claims of Decision Conference theorists.

However, while the correlations found were strong, the proportion of unexplained variation remained at over sixty percent, indicating that other factors are involved. Further, as will be revealed in the qualitative data analysis discussed in the following chapters, simple scale response questions do not appear to adequately capture the complexity of participants' perceptions regarding the Decision Conferencing experience. These points are reinforced and explicated in the following chapters.

The implications of these findings are discussed further in Chapter Seven: Discussion and Implications.

5 CHAPTER FIVE: QUALITATIVE DATA ANALYSIS - CASE 1 MBC

5. 1 Introduction

Chapter Five presents the findings drawn from the qualitative data for Case 1 MBC and begins by presenting the background to the Decision Conference in question, including a review of the participants; an outline of preparatory work conducted by the participants and presents the objectives of the workshop. The modeling process and the decision outcome are also included in this section.

Following on from this overview of the background to Case 1 MBC is a detailed discussion of the analysis and associated findings of the in-depth interviews conducted with participants, including the identification of key concepts and principal themes to emerge from the data.

The chapter then focuses on the findings as they directly relate to the research questions and closes with a summary of the Decision Conferencing experience as described by participants within this study.

5. 2 Background

Case 1 is a large Metropolitan Borough Council (Case 1 MBC) in the north of England with a population of approximately 290,000 people. The Council is made up of elected Councilors (sometimes referred to as Members), who make the policies which determine how the Council is run, and non-elected Officers - professional people like planners, accountants, leisure development specialists and environmental health Officers - who put those decisions into effect.

At the time of the data collection the Council was a complex organisation made up of four distinct party political groups, with no one faction controlling the balance of power. There were approximately 63 Councilors on the Council.

Case 1 MBC were faced with the need to drastically reduce spending over the next three years. It was anticipated that there would be initial cuts of up to £3.5m in 1998/99, progressing to £10m by 2001. Case 1 MBC needed to put together a budget that would achieve this, yet would also be broadly acceptable to the various political groups that made up the Council.

In the past, Council made these sorts of budget decisions through a complex process of Party Group consultations, negotiations between Councilors, input from Officers

(people who worked for the Council within various divisions – in this case Social Services) and full Council sessions. Full Council sessions were run along very structured formal meeting processes in public forums (i.e. the public and the press were free to attend if interested). Officers had significant input to the process as they prepared the various budgets in consultation with the elected Councilors.

However, rather than rely on their usual processes to try and achieve a workable program in a short period of time, Case 1 MBC decided to commission a Decision Conference to be run by an External Service Provider (ESP).

The Director of Social Services (i.e. one of the Officer group) had participated in two Decision Conferences previously and felt that this was an approach that might facilitate their decision making and increase ownership. As discussed, the political environment was one where there was no single party leading and this was an attempt to work on a consensual basis. It is important to note that previous Decision Conference sessions had been run only with Officers present.

The Decision Conference was run over two days, however Councilors only joined the Conference on Day 2. Participants at times refer to the Decision Conference as the Workshop. These terms will therefore be used synonymously.

Subsequent to the Decision Conference, the Council was informed that the cuts would only need to be around £1m. This was a great relief to the group, but also left a number of issues unresolved.

5.2.1 Participants

Interviews were conducted with 12 of the 13 participants involved in the Decision Conference. Seven of these people were Members of the Council (primarily Party Leaders and Heads of Finance) and the other 5 were Officers (Social Services departmental employees). The Officers included the Director and the Assistant Director of Social Services and Chief Officers. The remaining Decision Conference participant (also an employee) was not involved for the full day and therefore not included in the study. Each of the major political groups was represented in the Decision Conference.

In addition to the participants there were a number of Service Managers who sat in as observers and had no active role in the process. It is also important to note that the

role of Officers in this instance was in a discussion/advisory capacity only. They had prepared the various options to consider, however it was the Councilors who were there to 'make the decisions'. As indicated earlier, another point worth noting is that Councilors only joined the Decision Conference on Day 2, at the stage where evaluation of the various options was to take place.

The Decision Conference facilitation team consisted of a facilitator and an analyst (both from ESP) and a trainee analyst (internal). The decision analysis software, EQUITY™ was used to capture and manage the data generated during the Decision Conference. For a more detailed discussion of the use of EQUITY™ in Decision Conferencing, refer to Chapter Two: Literature Review.

5.2.2 Decision Conference Prework

As part of the preparation, the Officers had their own pre-conference meeting. During this pre-session the Officers put together the various options and criteria that the Councilors were to consider during the Decision Conference.

The suggested bids and criteria were distributed to the participants for review prior to the Decision Conference.

5.2.3 Decision Conference Objectives

At the start of the Decision Conference a clear purpose and set of objectives was agreed.

Purpose

To become better informed about the implications of indicative reduction targets

Objectives

1. To identify the issues surrounding the 2000/01 budget
2. To reach a shared understanding of the options
3. To review the criteria
4. To evaluate the options against the perceived criteria
5. To explore the implications of taking a £3.5m cut in 98/9 and a £10m cut by 2000/01
6. To identify options for further investigation
7. To agree 'what next'?

(ESP1 1997: 5)

5.2.4 Building the Model

Areas & Options

Prior to the Decision Conference, nine broad budget areas to be addressed had been identified by the Officers. The areas were:

1. Elderly residential – referring to services provided to elderly people in residential care
2. Elderly home care – services provided to elderly people who still lived at home
3. Adult day services – this primarily covered services related to mental health issues
4. Learning disability – services related to people with learning disabilities and included residential and support housing services and respite care
5. Children residential – residential services including some external placements for children
6. Transport (incremental) – primarily taxi services
7. Staff development – staff training and development
8. Fieldwork – staffing and services in the field
9. Children family placement – (uncertain – not clear from ESP report)

The decision related to each of these areas concerned the degree of cuts that should be made within each one in order to achieve the required savings (i.e. a £3.5m cut in 98/9 and a £10m cut by 2000/01). A number of options were associated with each budget level for each area. Each option was made up with a package of actions that would result in a specified reduction in costs. For example, for Area 1 *Elderly Residential* there were 5 options, two of these are presented below:

- SQ - remaining with the Status Quo (i.e. in effect no further cuts to the budget for this area).
- -35% - which entailed a shift in eligibility criteria for assistance; a 5% shift from nursing to high dependency classification and a change in the transfer arrangements in some care areas

It is important to note that quite detailed discussion papers regarding each of the areas and associated options were issued to those participating in the Decision Conference. However, as these papers were not available to the researcher, it wasn't always possible to deduce the exact nature of each option.

Criteria

During the pre-conference session, Officers also identified the criteria by which each of the budget options was to be addressed. Criteria are used to differentiate between the options. In this instance three criteria were established (refer Table 5-1). Whilst these had been agreed before the Decision Conference further discussion and amendments took place at the beginning of the session. Following is the agreed set of criteria:

Table 5-1 Criterion

Criteria	Definition
Safeguarding	The extent to which an option safeguards and protects the welfare of the most vulnerable members of the community and those most at risk of harm to themselves or others. Intent: To work to reduce poverty Borough-wide and safeguard the most vulnerable people.
Social Cohesion	The extent to which an option maximises the integration of people within the local communities and support care within the community with the purpose of minimising social exclusion whilst maintain social control. Intent: To strive for a safe, healthy, decent and increasingly sustainable community. To work to reduce poverty Borough-wide and safeguard the most vulnerable people. To work in partnership with local business and other agencies to regenerate the Borough's economy, creating prosperous and sustainable communities. To communicate and be responsive to citizens and involve them in truly local democracy.

Criteria	Definition
Acceptability, Achievability & Best Value	The extent to which an option provides services efficiently and effectively that are responsive to the needs of the local community over three years. Intent: To provide good quality services, responsive to the needs of people and the communities. To strive for a safe, healthy and decent and increasingly sustainable environment. To provide sound finances and use resources efficiently and prudently.

(ESP1 1997: 8-9)

The group proceeded to build a model on the whiteboards, which encompassed their agreed bids and benefit criteria. As shown in Table 5-2, the model had three separate cost components, one for each of the two years following the Decision Conference, an FTE cost plus a third column for the balance of the total capital required for the year 2000/01.

As discussed earlier, a number of activity areas had also been defined based on the various service committees. These are identified in Table 5-2 under the heading 'AREA' and include Elderly Residential, Elderly Home Care, Children residential and so on. As indicated, prior to the Decision Conference participants had been provided with detailed discussion papers regarding the bids.

Having reviewed and agreed the options and criteria, the group then turned to assessing the options using preference scales (the method used here is discussed in Chapter Two). Next, two sets of weights were assigned. The first sets of weights were used to indicate the relative length of the scales within a single criterion (W*ithin Criteria Weights*) and the 'Box Method' was used to establish these weights for the first two criteria. For the third criterion the relative importance of the most difficult option was assessed, thus deriving the Within Criterion Weight directly. The second type of weight (*Across Criteria Weights*) was used to indicate the group's perception of the relative importance of the criteria being used. Using EQUITY™, the total costs and total benefits of all packages (combinations of plans) was then calculated and a graphical representation presented to the group. From this, the group could observe which packages produced the greatest benefit for a given cost level indicated as points on the upper edge of an 'envelope' graph as described in

discussed in Chapter Two's discussion of the modeling process. Having reached this stage, the group was in a position to begin exploring the model in more detail.

5.2.5 Explanation of the Model

The starting point for the analysis was the Status Quo package for the 2000/01 situation presented in Table 5-2. The proposed package is shown where the total forecast budget for the Year 2000/01 was seen as coming to approximately £55m.

Table 5-2 EQUITY™ Model - Status Quo

Status Quo			**Costs (in '000s pounds)**			
Area	**Option**		**98/99 net**	**00/01 net**	**FTE**	**Net**
1. Elderly residential	SQ	(5 of 5)	12,345	12,970	0	12,970
2. Elderly home care	SQ	(5 of 5)	6,450	6,731	0	6,731
3. Adult day services	SQ	(5 of 5)	3,660	3,845	0	3,845
4. Learning disability	SQ	(3 of 3)	5,109	5,367	0	5,367
5. Children residential	SQ	(5 of 5)	4,022	4,226	0	4,226
6. Transport (incremental)	SQ	(1 of 4)	562	590	0	590
7. Staff development	SQ	(5 of 5)	442	464	0	464
8. Fieldwork	SQ	(3 of 3)	7,112	7,742	0	7,742
9. Children family placement	SQ	(5 of 5)	2,068	2,173	0	2,173
10. Not considered		(1 of 1)	10,809	11,356	0	11,356
		Totals	52579	55,464	0	55,464

Total BENEFITS	1,000
Total Costs	**55,464**

(ESP1 1997: 13)

In terms of reading the above table, an example is as follows:

Area 1 *Elderly Residential*

> *The Option is the Status Quo (maintain current actions in this area), which was number 5 of 5 different options proposed by the group for this area. The budget for this Status Quo option is £12,345,000 for 1998/99 and £12,970,000 2000/01. There is no change in the Full*

Time Equivalent (FTE) figures. The net figure reflects the 2000/01 situation.

After examining this current state of affairs, the group then moved on to explore the model's recommendations using the initial weights for a specified budget aimed at saving £10m as outlined in the objectives (i.e. achieving a budget of approximately £45m). The group began by examining how the model had sorted the various options to see which emerged as the first to invest in, which the second and so on. The proposed package emerged as per Table 5-3.

Whilst this achieved the required £10m savings, there was a great deal of concern about the level of cuts that this would involve, with the elderly and those with learning disabilities hit especially hard. Acting on this concern, the group then explored the effect of placing specific constraints on the model in these areas. After exploring the effect of these constraints and looking at two further packages the group felt that the consequences of either of these constraints represented a less desirable outcome than that presented in Table 5-3 (ESP1 1997: 15).

Table 5-3 EQUITY™ Model - 2000/01 Budget

Status Quo			**Costs (in '000s pounds)**			
Area	**Option**		**98/99 net**	**00/01 net**	**FTE**	**Net**
1. Elderly residential	-35%	(1 of 5)	8,024	8,430	1.0	8,430
2. Elderly home care	-29%	(2 of 5)	4,160	4,798	-118.0	4,796
3. Adult day services	-15%	(3 of 5)	3,111	3,269	-10.0	3,269
4. Learning disability	-33%	(1 of 3)	3,409	3,581	-60.0	3,581
5. Children residential	-15%	(3 of 5)	3,418	3,592	-3.0	3,592
6. Transport (incrmtl)	SQ	(1 of 4)	562	590	0.0	590
7. Staff development	-23%	(3 of 5)	632	359	-4.0	359
8. Fieldwork	-8%	(2 of 3)	6,757	7,098	-17.5	7098
9. Children family placement	SQ	(5 of 5)	2,068	2,173	0.0	2,173
10. Not considered	SQ	(1 of 1)	10,809	11,356	0.0	11,356
		Totals	43,130	45,246	-211.5	45,246

Total BENEFITS	684
Total Costs	**45,246**

The group then tested the sensitivity of the model to changes in across criteria weights, again for a specified budget that would achieve a saving of £10m. The model recommendation was exactly the same as before. According to the report, the group therefore concluded that the model was insensitive to changes in weights (ESP1 1997: 15). So, while participants appeared unhappy with the effect such cuts were likely to have, it appeared from the report that group agreed that this was the best they could do under the circumstances.

The group then turned to consider the 1998/99 budget situation and had the software produce a recommendation for a saving of £3.5 or a total budget of £49,079m. Table 5-4 presents the resulting package that the group felt represented a reasonable way of achieving the saving required (ESP1 1997: 16). As can be seen from this table, the areas most extensively cut were again related to services provided to the elderly.

Table 5-4 EQUITY™ Model - 1998/99 Budget

Frontier Package #23			**Costs (in '000s pounds)**			
Area	**Option**		**98/99 net**	**00/01 net**	**FTE**	**Net**
1. Elderly residential	- 15%	(3 of 5)	10,493	11,025	1.0	10,493
2. Elderly home care	- 17%	(3 of 5)	5,347	5,572	-71.5	5,347
3. Adult day services	SQ	(5 of 5)	3,660	3,845	0	3,660
4. Learning disability	SQ	(3 of 3)	5,109	5,367	0	5,109
5. Children residential	- 5%	(4 of 5)	3,821	4,015	0	6,821
6. Transport (incremental)	SQ	(1 of 4)	562	590	0	562
7. Staff development	SQ	(5 of 5)	442	464	0	442
8. Fieldwork	SQ	(3 of 3)	7,112	7,742	0	7,712
9. Children family placement	SQ	(5 of 5)	2,068	2,173	0	2,068
10. Not considered	SQ	(1 of 1)	10,809	11,356	0	10,809
		Totals	49,423	52,149	0	49,423
Total BENEFITS	982					

The result from the Decision Conference in terms of budgets was two packages of options – one aimed at achieving a budget reduction of approximately £3.5m in the

first 12 months (Table 5-4) and another aimed at reducing the budget by £10m over a 3 year period (Table 5-3).

5.2.6 Decision Conference Outcome

As discussed above, emerging from the Decision Conference was a program for taking a £3.5m cut in 98/9 and a £10m cut by 2000/01. It is important to note that whilst all participants were important players in the budget process, this was by no means a final decision. The budgets were to be taken back to the various political groups for further discussion. The Director had a number of concerns about this as he felt that people wouldn't really understand the issues unless they had been participants at the Decision Conference.

It is also important to note that between the time of the Decision Conference and the interviews with participants, the Council was informed that the cuts would only need to be around £1m. A consequence of this was that the drastic actions that had been indicated as necessary to achieve the initial objectives were no longer required. Whilst participants welcomed this it was noted by some that this was really just postponing the inevitable.

The next section presents participants' perceptions of the Decision Conference process, an analysis of key themes arising from the individual interviews and consideration of what the findings reveal in terms of the research questions.

5. 3 Analysis of the Cognitive Maps – Case 1 Participants

Having reviewed the background to the Case 1 MBC Decision Conference, this section focuses on the points that emerged during the in-depth interviews conducted with 12 of the 13 Decision Conference participants. Following the analytical approach outlined in Chapter Three, the section begins by presenting a composite map of the group's views of their Decision Conference experience, followed by a review of the key concepts and principal themes identified in the data analysis.

5.3.1 The Composite Map – The Big Picture

Reconstructing an overall picture of the Case 1 MBC Decision Conference experience involved a number of stages. Once the participant interviews had been transcribed, each interview was mapped individually using the cognitive mapping

and analysis software, Decision Explorer™ and the relevant transcript passages coded and stored in NVivo™. A sample of an interview transcript and individual map is presented in Appendix D.

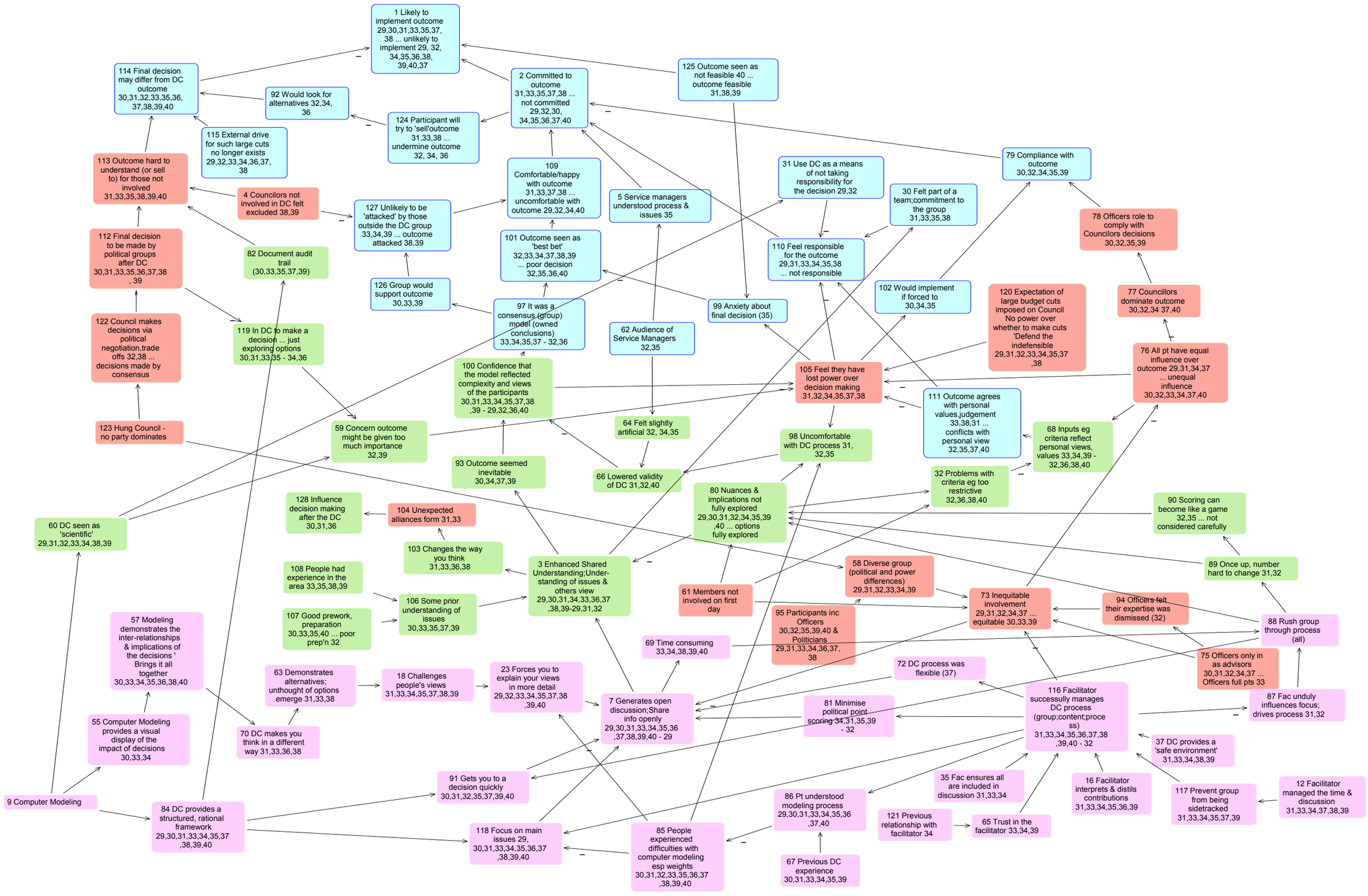
All of the individual maps were then carefully reviewed and combined to form a composite picture of the group's view of the Decision Conference they had participated in. For a detailed discussion of this process and the display conventions utilized in this study refer to Chapter Three. The overview map that emerged (see Figure 5-1) thus presents an aggregation of many different views, including conflicting perspectives, slightly different standpoints and issues of common significance to the group. It was possible that out of this complexity no single picture would emerge, however this proved not to be the case as there was a great deal of overlap regarding participants' picture of the Decision Conference.

As explained in Chapter Three, the number at the start of the concept description acts only as a label while the numbers following the concept description represent the identification numbers of those interviews where a direct statement supported the concept. With the data presented in this way, it is possible to quickly assess the measure of support for or against a concept. Different colours and fonts are used to indicate key themes. For example, the four colours on the map in Figure 5-1 indicate the four major themes to emerge from the analysis, i.e.:

- Blue – Commitment
- Pink – Process
- Green – Validity
- Orange – Power & Influence

Each of these will be discussed in detail in Section 5.3.5. Principal Themes. Additional colours or fonts assigned during the analysis are indicated by an accompanying legend in the relevant section.

Figure 5-1 Case 1 Composite Map



5.3.2 Measure of Coherence

Having developed the map the next step was to assess its overall consistency. For further discussion of this notion of consistency and logic within a map, please refer to Chapter Three: Research Method and Design. The composite map presented in Figure 5-1 also provides evidence of a high degree of coherence, as measured by Jenkins & Johnson (1997). The map contains a link to concept ratio of 1.43 (121 links to 85 concepts), a cluster index of 0.94 (3 clusters in a map of 85 concepts) and an extensive degree of elaboration for the majority of the chains of argument. Following Jenkins & Johnson (1997), it may therefore be concluded that the participants in the Case 1 MBC Decision Conference evidenced a high level of cognitive complexity in their discussion of the workshop process, a greater understanding of the linkages between concepts and thus a more coherent view of the issues.

However, whilst the above indicates the degree of complexity and the detailed map in Figure 5-1 visually reinforces our understanding of the degree of interconnection of the concepts raised by the group, it is still quite confusing in this form. Subsequent discussion will draw out the key elements so it becomes possible to gain a clearer picture of the Case 1 MBC Decision Conference experience.

5.3.3 The Key Concepts

The richness provided by the composite map is critical in analysing the multifaceted nature of interactions that took place in this Decision Conference, however it still appears a bit too 'cluttered' to make sense of visually. Therefore the next step in the analysis was to identify the potential goals, key issues and their links. The main forms of analysis used to accomplish this included the identification of head concepts, central analysis, domain analysis and path analysis. See Chapter Three: Research Method and Design for further discussion of these approaches.

5.3.3.1 Identifying Goals

The Head concepts reveal participants' views about where the process was leading. In the composite model, two concepts emerged as *Heads* for the Case 1 MBC Decision Conference participants, i.e.:

- overall likelihood of implementation i.e. Likely to implement outcome…unlikely to implement (#1); and
- the extent to which the process would influence decision making after the Decision Conference i.e. Influence decision making after the Decision Conference (#128)

The first head concept concerned the likelihood of implementation of the outcome (concept #1). To some extent the implementation issue was an expected 'goal' in that the semi-structured interview brief explicitly raised this issue with participants. Seven of the participants felt that it was likely that the outcomes would be implemented, although four of these qualified this with comments indicating that they thought it was only likely to be partially implemented. Another five thought it quite unlikely that the Council would implement the outcome. As noted, many of the comments regarding the likelihood of implementation were qualified. For example, the following participant felt that Officers would largely be unwilling to implement the decision, but if that was the way the Council decided to go then it was likely that it would be implemented. A typical comment revealing the complexity of this notion of support follows:

> Well from an officer perspective, definitely no…we'll do it very unwillingly. But we're paid to do it so we have to do it. From the Member perspective it was variable, um, Liberal Democrats will do it because they want to get a contract with the Council in April, Conservatives will do it because they believe that money should stay in people's pockets and they should have a choice rather than, um, be taxed and be told what will happen. Labour are in a dilemma because they would like to implement it in order to take the pressure off the Government, i.e., to be seen to be acting responsibly at the same time they've got a local constituency that, um, they don't want to see things like social services cut. So the dynamics are quite complex. S035 L450-460 Officer

Other comments regarding implementation included the fact that some saw it as just a stage in the whole decision-making process and as such the decision was unlikely to be implemented in its current form (e.g. participants S039 and S040). Issues surrounding likelihood of implementation are discussed further with regard to the Commitment cluster in Section 5.3.5 Principal Themes.

The second Head concept indicated was less expected and identified the contribution people felt that the Decision Conference had subsequently made to decision making and relationships (#128). While directly raised by only three participants, this perceived result of the process surfaces an important issue for Decision Conference practitioners i.e. the longer-term benefits to participants of the Decision Conference process. This topic is covered further in relation to the cluster *Validity*.

5.3.3.2 Locating Key Issues

Having determined the Head or goal concepts within the model, a Domain and a Central analysis were conducted to elicit both those concepts which were "busiest" i.e. had the most links and those that were most central in terms of the degree of connection with the wider model. As discussed in Chapter Three, concepts elicited through these analyses are most likely to be strong indicators of participants' key issues. The top 16 concepts to emerge from the Domain Analysis are presented in Table 5-5 and the top 16 from the Central Analysis are presented in Table 5-6. A comparison of these tables reveals 13 concepts in common. An asterisk identifies these common elements.

Table 5-5 Domain Analysis: Top 16 Concepts

	Top 16 concepts in descending order.	# Links (in & out)
1*	116 Facilitator successfully manages DC process (group;content;process) 31,33,34,35,36,37,38,39,40 - 32	11
2*	105 Feel they have lost power over decision making 31,32,34,35,37,38	9
3*	7 Generates open discussion;Share info openly 29,30,31,33,34,35,36,37,38,39,40 – 29	8
4*	73 Inequitable involvement 29,31,32,34,37 ... equitable 30,33,39	7
5*	80 Nuances & implications not fully explored 29,30,31,32,34,35,39,40 ... options fully explored	7
6*	2 Committed to outcome 31,33,35,37,38 ... not committed 29,32,30, 34,35,36,37,40	6
7*	3 Enhanced Shared Understanding; Understanding of issues & others view 29,30,31,34,33,36,37,38,39-29,31,32	6
8*	110 Feel responsible for the outcome 29,31,33,34,35,38 ... not responsible	5
9*	88 Rush group through process (all)	5

	Top 16 concepts in descending order.	# Links (in & out)
10*	76 All pt have equal influence over outcome 29,31,34,37 ... unequal influence 30,32,33,34,37,40	4
11*	100 Confidence that the model reflected complexity and views of the participants 30,31,33,34,35,37,38,39 - 29,32,36,40	4
12	113 Outcome hard to understand (or sell to) for those not involved 31,33,35,38,39,40	4
13	114 Final decision may differ from DC outcome 30,31,32,33,35,36, 37,38,39,40	4
14*	118 Focus on main issues 29, 30,31,33,34,35,36,37,38,39,40	4
15	84 DC provides a structured, rational framework 29,30,31,33,34,35,37,38,39,40	4
16*	85 People experienced difficulties with computer modeling esp weights 30,31,32,33,35,36,37,38,39,40	4

As discussed, Table 5-6 (following) presents the top 15 concepts to emerge from the Central Analysis. Central Analysis looks beyond the immediate links and examines the relationship of the concept to the rest of the map (Brightman 1998: 18). Thus, the concepts listed here are those that have the highest degree of influence throughout the model.

Table 5-6 Central Analysis: Top 15 Concepts

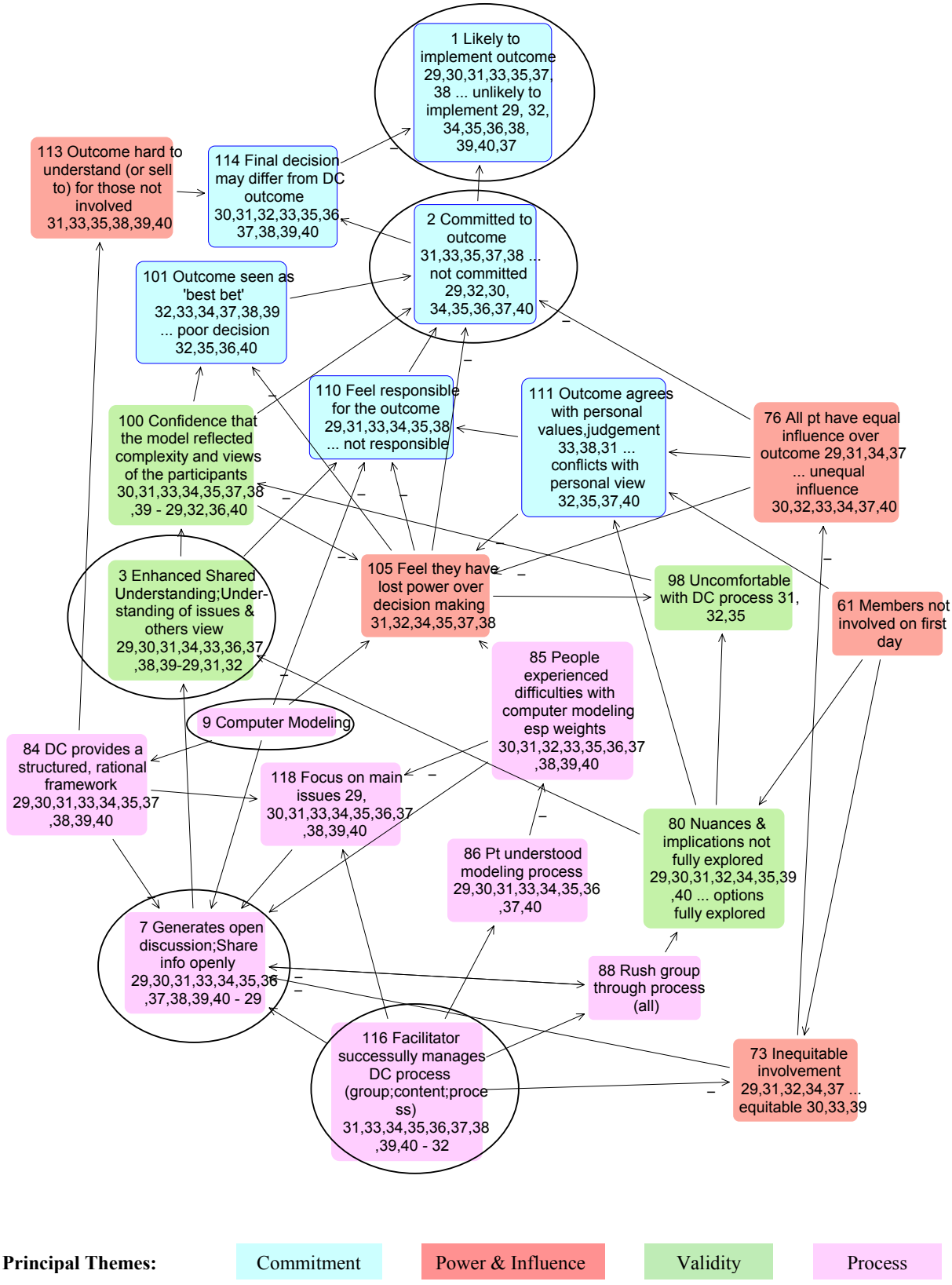
	Top 15 concepts in descending order.	Cent Score
1*	105 Feel they have lost power over decision making 31,32,34,35,37,38	24 from 48 concepts
2*	73 Inequitable involvement 29,31,32,34,37 ... equitable 30,33,39	24 from 51 concepts.
3*	7 Generates open discussion; Share info openly 29,30,31,33,34,35,36,37,38,39,40 - 29	23 from 47 concepts.
4*	116 Facilitator successfully manages DC process (group;content;process) 31,33,34,35,36,37,38,39,40 - 32	22 from 38 concepts.
5	98 Uncomfortable with DC process 31, 32,35	21 from 46 concepts.
6*	76 All pt have equal influence over outcome 29,31,34,37 ... unequal influence 30,32,33,34,37,40	21 from 49 concepts.
7*	80 Nuances & implications not fully explored 29,30,31,32,34,35,39,40 ... options fully explored	20 from 42 concepts.
8*	3 Enhanced Shared Understanding; Understanding of issues & others view 29,30,31,34,33,36,37,38,39-29,31,32	20 from 41 concepts.

	Top 15 concepts in descending order.	Cent Score
9*	118 Focus on main issues 29, 30,31,33,34,35,36,37,38,39,40	18 from 40 concepts.
10*	110 Feel responsible for the outcome 29,31,33,34,35,38 ... not responsible	18 from 40 concepts.
11*	85 People experienced difficulties with computer modeling esp weights 30,31,32,33,35,36,37,38,39,40	17 from 41 concepts.
12	61 Members not involved on first day	17 from 39 concepts.
13*	2 Committed to outcome 31,33,35,37,38 ... not committed 29,32,30, 34,35,36,37,40	17 from 34 concepts.
14*	100 Confidence that the model reflected complexity and views of the participants 30,31,33,34,35,37,38,39 - 29,32,36,40	16 from 34 concepts.
15*	88 Rush group through process (all)	15 from 33 concepts.
16	91 Gets you to a decision quickly 30,31,32,35,37,39,40	15 from 33 concepts.

Examination of the Head concepts and those resulting from the Domain & Central analyses revealed some of the key concepts emerging from this model. These concepts were then added to a new set called *Key Issues*. This new set was then reviewed once more and additional concepts that were seen as providing critical links or clues to the central themes and context for visual presentation of Decision Conference experience were also included as part of *Key Issues.*

Figure 5-2 presents a collapsed map of this set and captures the essence of the Case 1 MBC Decision Conference participants' experience. Key claims from the Decision Conferencing Literature are circled. It should be noted that this is a summary map and that there are a number of intervening or contributing concepts that do not appear here. The next section outlines the story that emerged from this summary picture, drills further down into the data revealing the principal themes and directly addresses the research questions in relation to this case.

Figure 5-2 Collapse Map – Key Issues



5.3.4 The Case 1 Story – An Overview

It is important to bear in mind that Figure 5-2 is a summary map and that there are a number of intervening or contributing concepts that do not appear here. Despite this, this collapsed view does provide a good indicator of the core structure of participants' views of this Decision Conference.

Starting at the top of the map, a cursory visual examination shows that the group was split between those who believed that the budget was likely to be implemented and those who felt it was not likely (concept #1). Part of this was seen as being related to the impact of outside influences (#114 *Final decision may differ and # 113 outcome hard to understand (or sell to),* but was also seen as linked to the degree of commitment to the outcome felt by participants (#2).

As evidenced by the interview ID numbers, the majority of participants were not committed to the outcomes of this Decision Conference with three stating they were committed, six not committed and the other three expressing ambivalence. This conflicts with the claims made in the ESP Decision Conference report concerning the group's agreement regarding the agreed budget outcomes (ESP1 1997). Many of those who weren't committed felt that they had lost power over the decision-making process (#105) and/or that the outcomes were conflicting with deeply held values (#111). The role of confidence in the model (#100) and people's view of whether it was their 'best bet' at the time (#101) was also positively linked to commitment (#2). However, even for those who felt it was the best decision they could make under the circumstances, this wasn't always enough to counter the other issues that were negatively impacting on their overall commitment levels.

Ten of the participants stated that the facilitator was seen as playing a key role (#116), helping to keep people focused on the main points (#118) and minimizing the problems experienced with the computer modeling (#86, #85). This was important because difficulties in this area distracted people from the task in hand (#118) and had the potential to make people feel they had somehow lost control of the decision making (#75, #98).

The generation of open discussion and sharing of information (#7) played a central role in enhancing people's understanding of each other and the issues being

addressed (#3) for the majority of the participants (9/12). Developing this understanding was seen as enhancing participants' confidence that the model reflected the discussion that took place and the expressed views of participants (#100). This in turn was linked to the perceived quality of the decision, convincing six participants that the outcome was the best bet (#101) given the circumstances and potentially strengthening participants' commitment (#2). In many instances, these elements were driven by both the computer modeling and the facilitation.

A potential problem area here was the extremely tight time schedule, which meant that all participants felt rushed (#88). Eight of the twelve felt this meant that the nuances and implications of many of the decisions they were making were not fully explored (#80). This was seen as detracting from people's overall understanding of the issues and others views (#3), potentially increasing participants discomfort with the Decision Conference process (#98) and impacting negatively on their confidence that the model reflected the complexity of the issues under discussion (#100). The ultimate consequence for these chains of events was a possible decrease in overall commitment (#2).

Six of the twelve participants stated that they felt responsible for the outcome (#29). This was partly driven by an enhanced degree of shared understanding (#3), the extent to which the outcome was seen as reflecting personal views (#111, with only three confirming that this was the case) and again the degree of power or perceived control over the decision making (#105).

As well as providing an idea of participants' perceptions of the Case 1 MBC Decision Conference, the summary map also facilitates a comparison of this experience to the claims made in the literature regarding the development of commitment to action. Recall from Chapter Two that a fundamental premise of Decision Conferencing is that as the model develops and alternative options are investigated participants will develop a common understanding of the decision situation. It is assumed that this understanding will lead to a commitment to implement any courses of action that may emerge from this shared view. These key claims are circled in Figure 5-2. What is immediately evident is that while there exists some support for this argument, it only tells part of the story of what took place in the Case 1 MBC Decision Conference. These issues will be explored further in the next section "Principal Themes".

5.3.5 Principal Themes

The previous section presented an overview of the Case 1 MBC Decision Conference experience. What follows is a fleshing out of this basic structure. As indicated by the colour coding on the composite map in Figure 5-1, four broad themes emerged from a cluster analysis of the Case 1 MBC Decision Conference experience. They were:

- **Commitment** — How people felt about the outcome and their degree of commitment to it. Issues impacting on commitment such as the ownership of and feelings of responsibility for the outcome (a more affective response to the decision), perceived decision quality, the notion of compliance, concepts related to implementation such as external pressures and perceived feasibility.
- **Power & Influence** — Focused around the issue of power and influence, including power relationships within the group and control over decision making; the makeup of the group and perceived roles, degree of control and influence over the decision making.
- **Validity** — Primarily concerned trust in the process and perceived validity of the process. Perceived quality and validity of the outcome, quality of discussion, understanding of issues, confidence that the model reflected the complexity of the decision making, beliefs regarding what would make a good decision (i.e. the 'best bet') and role of preparatory work.
- **Process** — Two distinct but related sub-groupings. This included perceptions of the modeling process and its implications. Issues revolved around difficulties with the computer modeling as well as positive aspects of the process (e.g. structured, rational, brings to light new options). The other aspect of this cluster concerned the role of the facilitator. Degree of trust in the facilitator, perceptions regarding influence, facilitator's pivotal role in management of the process.

Table 5-7 presents the four broad themes, the sub-themes where relevant and the concepts within each set. Following this table is a discussion of each of these principal themes.

Table 5-7 Principal Themes

Commitment (23 concepts)	
Theme	**Components**
Commitment	➢ 1 Likely to implement outcome 29,30,31,33,35,37, 38 ... unlikely to implement 29, 32, 34,35,36,38, 39,40,37 ➢ 2 Committed to outcome 31,33,35,37,38 ... not committed 29,32,30, 34,35,36,37,40 ➢ 5 Service managers understood process & issues 35 ➢ 30 Felt part of a team;commitment to the group 31,33,35,38 ➢ 31 Use DC as a means of not taking responsibility for the decision 29,32 ➢ 62 Audience of Service Managers 32,35 ➢ 79 Compliance with outcome 30,32,34,35,39 ➢ 92 Would look for alternatives 32,34, 36 ➢ 97 It was a consensus (group) model (owned conclusions) 33,34,35,37 - 32,36 ➢ 99 Anxiety about final decision (35) ➢ 101 Outcome seen as 'best bet' 32,33,34,37,38,39 ... poor decision 32,35,36,40 ➢ 102 Would implement if forced to 30,34,35 ➢ 109 Comfortable/happy with outcome 31,33,37,38 ... uncomfortable with outcome 29,32,34,40 ➢ 110 Feel responsible for the outcome 29,31,33,34,35,38 ... not responsible ➢ 111 Outcome agrees with personal values,judgement 33,38,31 ... conflicts with personal view 32,35,37,40 ➢ 114 Final decision may differ from DC outcome 30,31,32,33,35,36, 37,38,39,40 ➢ 115 External drive for such large cuts no longer exists 29,32,33,34,36,37, 38 ➢ 124 Participant will try to 'sell'outcome 31,33,38 ... undermine outcome 32, 34, 36 ➢ 125 Outcome seen as not feasible 40 ... outcome feasible 31,38,39 ➢ 126 Group would support outcome 30,33,39 ➢ 127 Unlikely to be 'attacked' by those outside the DC group 33,34,39 ... outcome attacked 38,39 21 concepts
Power & Influence (17 concepts)	
Power & Influence	➢ 4 Councilors not involved in DC felt excluded 38,39 ➢ 58 Diverse group (political and power differences) 29,31,32,33,34,39 ➢ 61 Members not involved on first day ➢ 73 Inequitable involvement 29,31,32,34,37 ... equitable 30,33,39 ➢ 75 Officers only in as advisors 30,31,32,34,37 ... Officers full pts 33 ➢ 76 All pt have equal influence over outcome 29,31,34,37 ... unequal influence 30,32,33,34,37,40 ➢ 77 Councilors dominate outcome 30,32,34 37,40 ➢ 78 Officers role to comply with Councilors decisions 30,32,35,39 ➢ 94 Officers felt their expertise was dismissed (32) ➢ 95 Participants inc Officers 30,32,35,39,40 & Politicians 29,31,33,34,36,37, 38 ➢ 104 Unexpected alliances form 31,33 ➢ 105 Feel they have lost power over decision making 31,32,34,35,37,38 ➢ 112 Final decision to be made by political groups after DC 30,31,33,35,36,37,38, 39 ➢ 113 Outcome hard to understand (or sell to) for those not involved

	31,33,35,38,39,40 ➢ 120 Expectation of large budget cuts imposed on Council No power over whether to make cuts 'Defend the indefensible 29,31,32,33,34,35,37,38 ➢ 122 Council makes decisions via political negotiation, trade offs 32,38 ... decisions made by consensus ➢ 123 Hung Council - no party dominates 17 concepts
Validity (20 concepts)	
Validity	➢ 3 Enhanced Shared Understanding; Under-standing of issues & others view 29,30,31,34,33,36,37,38,39-29,31,32 ➢ 32 Problems with criteria e.g. too restrictive 32,36,38,40 ➢ 59 Concern outcome might be given too much importance 32,39 ➢ 60 DC seen as 'scientific' 29,31,32,33,34,38,39 ➢ 64 Felt slightly artificial 32, 34,35 ➢ 66 Lowered validity of DC 31,32,40 ➢ 68 Inputs e.g. criteria reflect personal views, values 33,34,39 - 32,36,38,40 ➢ 80 Nuances & implications not fully explored 29,30,31,32,34,35,39,40 ... options fully explored ➢ 82 Document audit trail (30,33,35,37,39) ➢ 89 Once up, number hard to change 31,32 ➢ 90 Scoring can become like a game 32,35 ... not considered carefully ➢ 93 Outcome seemed inevitable 30,34,37,39 ➢ 98 Uncomfortable with DC process 31, 32,35 ➢ 100 Confidence that the model reflected complexity and views of the participants 30,31,33,34,35,37,38,39 - 29,32,36,40 ➢ 103 Changes the way you think 31,33,36,38 ➢ 106 Some prior understanding of issues 30,33,35,37,39 ➢ 107 Good prework, preparation 30,33,35,40 ... poor prep'n 32 ➢ 108 People had experience in the area 33,35,38,39 ➢ 119 In DC to make a decision ... just exploring options 30,31,33,35 - 34,36 ➢ 128 Influence decision making after the DC 30,31,36 20 concepts
Process (27 concepts)	
Sub-themes	**Components**
General	➢ 7 Generates open discussion; Share info openly 29,30,31,33,34,35,36,37,38,39,40 - 29 1 concept
Computer Modeling	➢ 9 Computer Modeling ➢ 18 Challenges people's views 31,33,34,35,37,38,39 ➢ 23 Forces you to explain your views in more detail 29,32,33,34,35,37,38,39,40 ➢ 55 Computer Modeling provides a visual display of the impact of decisions 30,33,34 ➢ 57 Modeling demonstrates the inter-relationships & implications of the decisions ' Brings it all together 30,33,34,35,36,38,40 ➢ 63 Demonstrates alternatives; unthought of options emerge 31,33,38 ➢ 67 Previous DC experience 30,31,33,34,35,39 ➢ 69 Time consuming 33,34,38,39,40 ➢ 70 DC makes you think in a different way 31,33,36,38 ➢ 72 DC process was flexible (37) ➢ 84 DC provides a structured, rational framework 29,30,31,33,34,35,37,38,39,40 ➢ 85 People experienced difficulties with computer modeling esp weights 30,31,32,33,35,36,37,38,39,40

	➢ 86 Pt understood modeling process 29,30,31,33,34,35,36,37,40 ➢ 91 Gets you to a decision quickly 30,31,32,35,37,39,40 ➢ 118 Focus on main issues 29, 30,31,33,34,35,36,37,38,39,40 15 concepts
Facilitation (Fac)	➢ 12 Facilitator managed the time & discussion 31,33,34,37,38,39 ➢ 16 Facilitator interprets & distils contributions 31,33,34,35,36,39 ➢ 35 Fac ensures all are included in discussion 31,33,34 ➢ 37 DC provides a 'safe environment' 31,33,34,38,39 ➢ 65 Trust in the facilitator 33,34,39 ➢ 81 Minimise political point scoring 34,31,35,39 - 32 ➢ 87 Fac unduly influences focus; drives process 31,32 ➢ 88 Rush group through process (all) ➢ 116 Facilitator successfully manages DC process (group; content; process) 31,33,34,35,36,37,38,39,40 - 32 ➢ 117 Prevent group from being sidetracked 31,33,34,35,37,39 ➢ 121 Previous relationship with facilitator 34 11 concepts

Following is a discussion of each of the principal themes, including their relationship to the concepts of *commitment (#2), shared understanding (#3)* and *computer modeling (#9*) where relevant. The first theme is that of *Commitment.*

5.3.5.1 Commitment

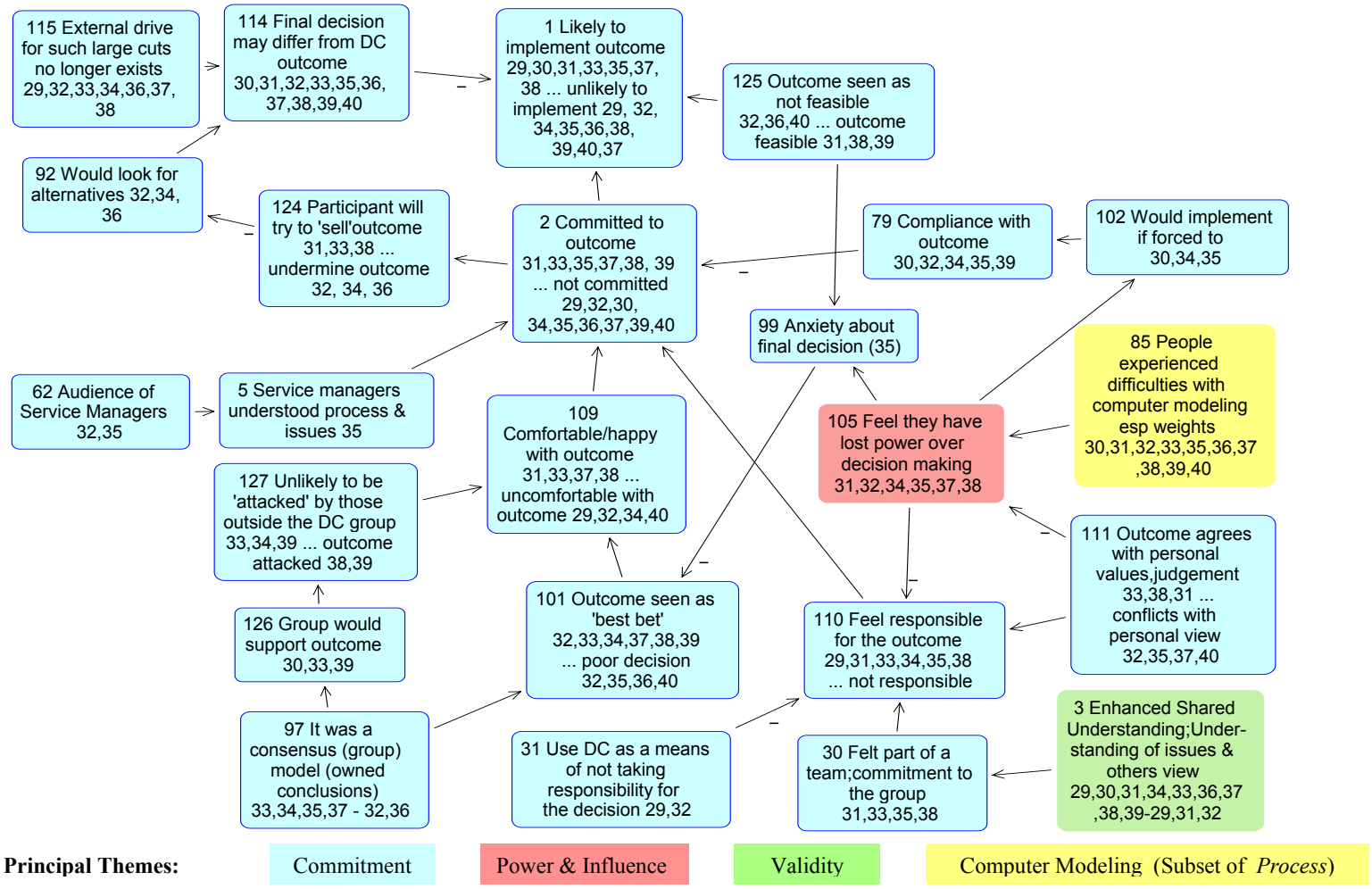
The first cluster, *Commitment*, contains 21 concepts. This cluster primarily encapsulates notions relating to the degree of support evidenced for the outcome and clearly illustrates the multi-dimensional nature of the concept of commitment. Also raised here are issues impacting on commitment such as the ownership of and feelings of responsibility for the outcome, how the notion of compliance ties in with this overall picture and concepts related to implementation such as external pressures and perceived feasibility. This cluster formed a relatively coherent group and as such has not been broken down into further sub-themes.

Beginning by exploring the central concept of commitment, this section then presents an overview of the interrelationship of the concepts within this cluster, and the links to Commitment (#2), Shared Understanding (#3) and concepts related to the computer modeling (i.e. #85 *people experienced difficulties with computer modeling* and #105 *feel they have lost power over decision making*). Table 5-8 identifies the colour coding and specific concepts that comprise this cluster while Figure 5-3 presents a visual representation of this cluster and the links to other relevant concepts in this study.

Table 5-8 Commitment

Commitment	➢ 1 Likely to implement outcome 29,30,31,33,35,37, 38 ... unlikely to implement 29, 32, 34,35,36,38, 39,40,37 ➢ 2 Committed to outcome 31,33,35,37,38 ... not committed 29,32,30, 34,35,36,37,40 ➢ 5 Service managers understood process & issues 35 ➢ 30 Felt part of a team;commitment to the group 31,33,35,38 ➢ 31 Use DC as a means of not taking responsibility for the decision 29,32 ➢ 62 Audience of Service Managers 32,35 ➢ 79 Compliance with outcome 30,32,34,35,39 ➢ 92 Would look for alternatives 32,34, 36 ➢ 97 It was a consensus (group) model (owned conclusions) 33,34,35,37 - 32,36 ➢ 99 Anxiety about final decision (35) ➢ 101 Outcome seen as 'best bet' 32,33,34,37,38,39 ... poor decision 32,35,36,40 ➢ 102 Would implement if forced to 30,34,35 ➢ 109 Comfortable/happy with outcome 31,33,37,38 ... uncomfortable with outcome 29,32,34,40 ➢ 110 Feel responsible for the outcome 29,31,33,34,35,38 ... not responsible ➢ 111 Outcome agrees with personal values,judgement 33,38,31 ... conflicts with personal view 32,35,37,40 ➢ 114 Final decision may differ from DC outcome 30,31,32,33,35,36, 37,38,39,40 ➢ 115 External drive for such large cuts no longer exists 29,32,33,34,36,37, 38 ➢ 124 Participant will try to 'sell'outcome 31,33,38 ... undermine outcome 32, 34, 36 ➢ 125 Outcome seen as not feasible 40 ... outcome feasible 31,38,39 ➢ 126 Group would support outcome 30,33,39 ➢ 127 Unlikely to be 'attacked' by those outside the DC group 33,34,39 ... outcome attacked 38,39 21 concepts

Figure 5-3 Commitment – The Cluster



5.3.5.2 Commitment – the Concept

During the face-to-face interviews, participants were asked a number of questions about the workshop outcome. The full interview guide is presented in Appendix B, however the primary questions related to commitment included:

Q10 The main outcome from the Workshop was the following prioritised list of bids for recommendation to the full Council (check for agreement that this was the perceived outcome).

Q11 How do you feel about this outcome?

Q12 Would you say that you feel personally committed to the courses of action indicated by the outcome of the Workshop?

Q13 What made you feel committed/not committed to this outcome?

Q14. Do you have any personal reservations about the outcome?

As discussed in the overview of the Case 1 MBC Decision Conference in Section 5.3.4, the majority of participants (9/12) stated that they were either not committed to the outcome or were only partially committed.

To further understand some of the elements directly impacting on this stated level of commitment (#2), the *Explore Concept* command was utilised. This command graphically displays the specified concept on the screen with any concepts that are directly linked to it, in a one level fanned map (Jones 1994).

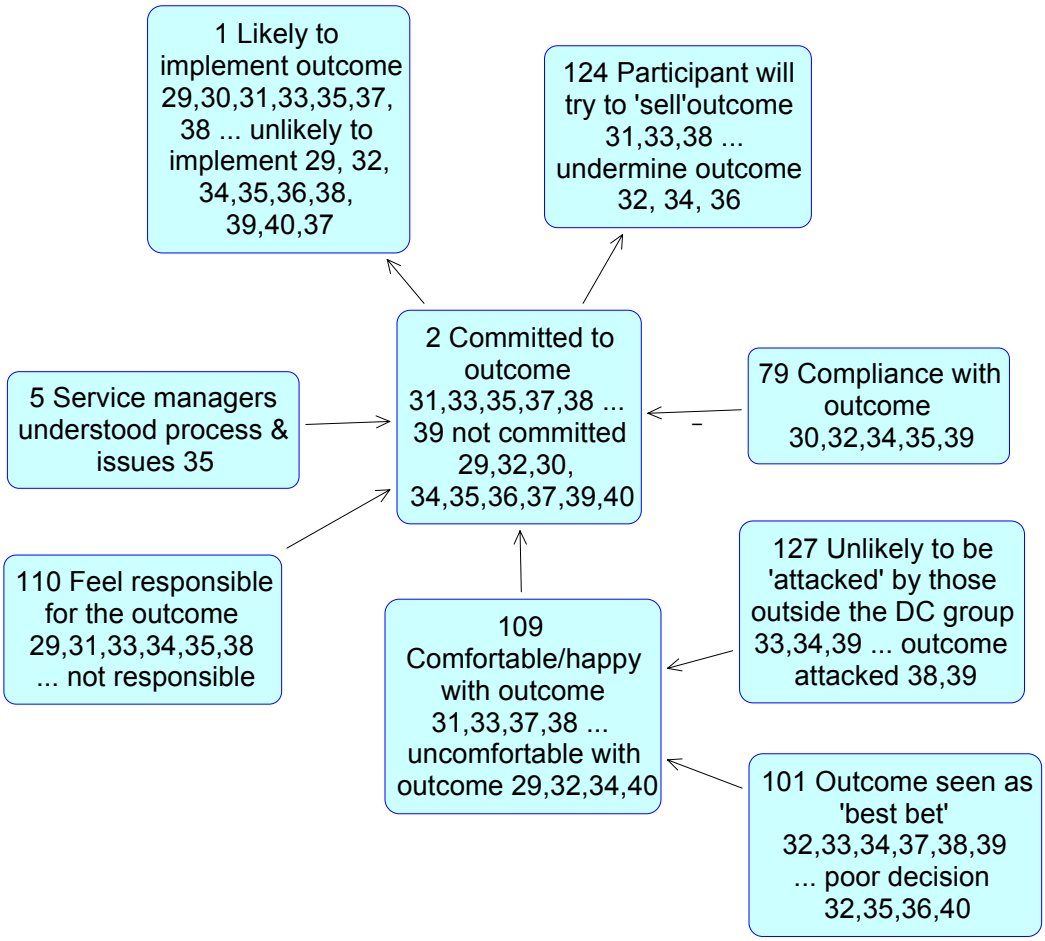
Figure 5-4 presents the result of this exploration and shows that there were four concepts directly linking into commitment. This encompassed the following:

- The degree of comfort participants had regarding the decision they had made, whether overall they felt happy with it (#109). Note that two of the key routes to this concept were based on the perception of the outcome as the 'best bet' (#101) and the degree to which participants felt the outcome was likely to be attacked by those who had not participated in the Decision Conference (#127).
- That this 'comfort' was largely as a result of whether the outcome was seen as the 'best bet'.
- The extent to which Service Managers were seen as understanding the process and the issues (#5).
- The extent to which participants felt responsible for the outcome (#110).

- Whether participants felt pressure to comply with the outcome (#79).

With the exception of this last point (#79 *compliance with outcome)*, all of the above were seen as positively linked to the enhancement of commitment, which in turn was seen as making it more likely that the outcome would be implemented (#1). Enhanced commitment also meant that participants felt they would be more inclined to try and 'sell' the outcome to non-participants (#124).

Figure 5-4 Exploring Commitment



While keeping this logic in mind, it is important to recall that many of the participants expressed either a low level of commitment or were not committed at all. Following on from the links described above, these participants would therefore be

less likely to defend the outcome outside the Decision Conference and there was a reduced likelihood of implementation of the outcome in its current form.

To some extent participants found it difficult to talk about commitment in the context of the decisions they were trying to make. Huge budget cuts, further complicated by national government directives about what couldn't be touched, left people in a no-win situation. As one participant put it:

> It's 'Defending the indefensible'. You got choices.. and you don't want to be in the position to make choice, but you've got to make a choice. It's the gun or the sword. And – well, I don't want to die (in the first place).. and that's the way I felt about it. S034 Councilor

This was to do with the degree of influence the participants felt they had over the budget cutting exercise and will be explored further in relation to another of the principal themes, *Power & Influence*.

For the three participants who were unequivocal about their support, this was largely due to the fact that the outcome was seen as being strongly in line with their own views and thus the best decision that could be made under the circumstances (#101). All three of these participants were Councilors. A typical comment here was as follows:

> I would (say I'm personally committed)…I would publicly support most of what came out of that workshop in terms of being the way forward in policy terms for social services and the for the next three years….(because) they agree with my philosophy and secondly they are good management systems which in fact mean the budget will be contained and we will not have to make other sectors of the budget suffer because of an overspending sector in another area. S033 L310 – 322 Councilor

Building on this view, support also came from the feeling that not only was it in line with this person's views but that they had been prepared to listen to others so again they felt confident that what had emerged was the best bet (#101)

> (I am committed) because it was probably in line with my ideas before I went in there. And.. otherwise, having said that, I'm quite open minded so.. if someone comes up with an idea and we can thrash it out and look at all aspects of it, I'm quite willing to be converted on that. S031 L665-668 Councilor

With regard to the six participants who stated that they were not committed, there was a mix of responses. As discussed there was a shared feeling amongst the group

that it was difficult to develop commitment to a budget reduction. This was expressed quite strongly by one of the participants who felt there was no way one could possibly say they were committed to something that actually reduced services (S030) i.e.

> ..because if I'm committed to something it's something that I think is good and we want to do and for the benefit of service users and the service itself, it's beneficial overall.. but to actually say I'm committed to reduction in services (it) is hard to say (that) yes I am committed to that and I will do it. S30 557-569 Officer

The above comment also tied in with four other participants who felt that it was a poor decision (#101) and basically unworkable. A typical comment follows:

> I think they're unachievable, I think they're unrealistic and I also fundamentally.. think that they were wrong in terms of the nature and balance of the service to the community that it would create.. I can't accept that that's a very reasonably or legitimate decision for the organisation to make. S032 L389-397 Officer

Two of the Councilors also felt that it was a poor political decision, which could potentially jeopardize their political position and would only comply if forced to i.e.:

> The only commitment that I would've had to that model, would've been that if we had actually landed up facing 8 to 10 million pounds worth of cuts as a Council, I would've had to have really – as an old fashioned expression – sucked my teeth in, sucked my cheeks in, sort of (intake of breath) and do it. But that would, that is not **commitment** (emphasis)… it's more compliance. S034, L598 – 606 Councilor

The remaining three participants expressed some sort of ambivalence regarding their level of commitment. For all three of these participants (S035, S037, S039) the outcome was seen as the 'least worst' so to that extent they would support it, however they didn't agree with the whole notion of making such large cuts. They therefore felt unable to say that they were personally committed to act on the outcome and indicated that they would do so only if they were forced to either as part of their role as Officers of the Council or due to outside influences such as a government directive.

> That's a very difficult question for me to answer because I'm not committed to the exercise at all, in that I don't believe that we should have to make the level of cuts in social services that, that we were being asked to make. So I mean, no I'm not personally committed to (the outcome). I'm personally committed to making social services

> more efficient, better, but not in making massive cuts. S037 334-347 Councilor

One of the participants who expressed some ambivalence also stated that while the outcome was largely in line with his views regarding what the Council should do if they were required to make such large cuts, as a group decision there were elements he still didn't feel personally committed to.

Overall, for Councilors their degree of commitment was generally linked to whether the outcome reflected their personal views and their confidence in the process. With the Officers, none of whom declared unequivocal commitment to the outcome, any sort of commitment would be more an act of compliance reflecting their professional responsibility rather than personal commitment to the decision made.

5.3.5.3 Commitment – The Cluster

This section builds on the preceding discussion regarding commitment and its direct links, drawing in the other concepts that made up this cluster. As noted in the previous section, those that felt comfortable with the outcome (#109) were more likely to express commitment (#2) and this was generally linked to whether the outcome reflected their personal views (#111). For example:

> I liked it because it gave lots of options for changing things.. but I wasn't on Social Services. S031 L610-611 Councilor

> I felt absolutely comfortable with it, personally I had no problem. It would have been an area that I would have gone anyway for some sort of real movement. S033 L290-292 Councilor

This notion of comfort is an important one in relation to developing commitment and also arose from the feeling of belonging to and being supported by the group (#97, #126, #127). Being part of a team also played a critical role in engendering commitment to the group (#30), which in turn enhanced feelings of responsibility for the outcome (#110). Again this was seen as being positively linked with commitment. Nevertheless, the decision itself was still seen as an unpalatable one, regardless of feelings of belonging or how 'scientific' or well conducted the process was, for example:

> Although this was a much more detailed process (than their usual approach), it was much more I'll use the word 'scientifically' approached .. at the end you're staring at answers that you were trying

> to avoid politically or even personally. Staring at you off a board or wherever they're on – the projection – they're staring at you. And you're still saying 'I don't want to do that. That's not what I'm here for, I don't want to do that'. S034, L535-541 Councilor

> If that's the sort of level of service we've got to provide, they're the sort of cuts that we're going to have to be making..well, we're here to protect the most vulnerable in our society, and yet to save these sorts of money, it's their services we've got to take away because we're spending the most on them. It's just plain bloody awful frankly to contemplate. S034, L492-503, Councilor

As a consequence people looked for an escape route. It may have been the best decision given the circumstances (#101), but both Councilors and Officers at times demonstrated an intent to either continue to search for alternatives (#92), undermine the decision (#124) or write it off as an academic exercise which didn't take into account the other areas and therefore wasn't as valid as it might have been (e.g. #64 which forms part of the *Validity* cluster).

> So I think that's.. I think I contributed to the process, because the process was of itself, but it was isolated from the rest of the Council..umm, it could be regarded as an academic exercise. I was there to participate in the exercise so I did, but I contributed to that outcome, yes. S034 Councilor

While many did not feel 'good' about the outcome this doesn't necessarily mean that they didn't think it was an accurate reflection of the discussion (#100 – again refer to Section 5.3.5.5 Validity) or that it was the best bet or the 'least worst' given the circumstances (#101) e.g.

> SW: Well it's least worst. You know, so in that sense, I'm.. I wouldn't.. I'm not backing off on it. Um.. you know, if somebody's saying to me, next week, you've got to take two and a half million out of your budget, then I think the areas the decision conferencing came up with will have to be the areas we'll be taking. I'm not .. you know S039: 266-274 Officer

In order to determine those concepts that exerted the most influence over this cluster, a *potency analysis* was conducted (refer Chapter Three for further discussion regarding this process). It emerged that two concepts were highly influential with regard to this cluster i.e. #123 (*Hung Council – no party dominates*) and #9 (*the use of computer modeling*). These were closely followed by 15 concepts of equal potency, all of which may be largely grouped as either power and influence related concepts or facilitation related concepts i.e.:

Power & Influence

- Perceived equity of participant involvement (#73).
- Perceived degree of involvement of officers i.e. as advisors or full participants (#75) and whether Officers felt that their expertise was valued or dismissed (#94).
- The diversity of the group in terms of both political and power differences (#95, #58).
- The fact that Councilors (Members) were not involved on first day (#61).
- The impact of the structured, rational framework provided by the Decision Conference process (#84).

- Facilitation
  - The degree to which the Facilitator was seen as successfully managing the Decision Conference process (#116).
  - Whether the group was focused or prevented from being sidetracked (#117)
  - Facilitator management of the time & discussion (#12).
  - The degree to which the facilitator interpreted & distilled contributions (#16) and ensured that all were included in the discussion (#35).
  - The perceived 'safety' of the Decision Conference environment (#37).
  - The degree of trust in the facilitator (#65).
  - Previous relationship with the facilitator (#121).

The fact that these emerged as relatively potent concepts in the analysis suggests that the power structure of the Council, the Decision Conference framework and the Facilitator were all critical elements with regard to the degree of commitment developed by participants in this case. Each of these areas is covered in more depth in subsequent sections in this chapter.

Having discussed the concepts that make up the *Commitment* cluster, the next section focuses on the second major theme to emerge, *Power and Influence.*

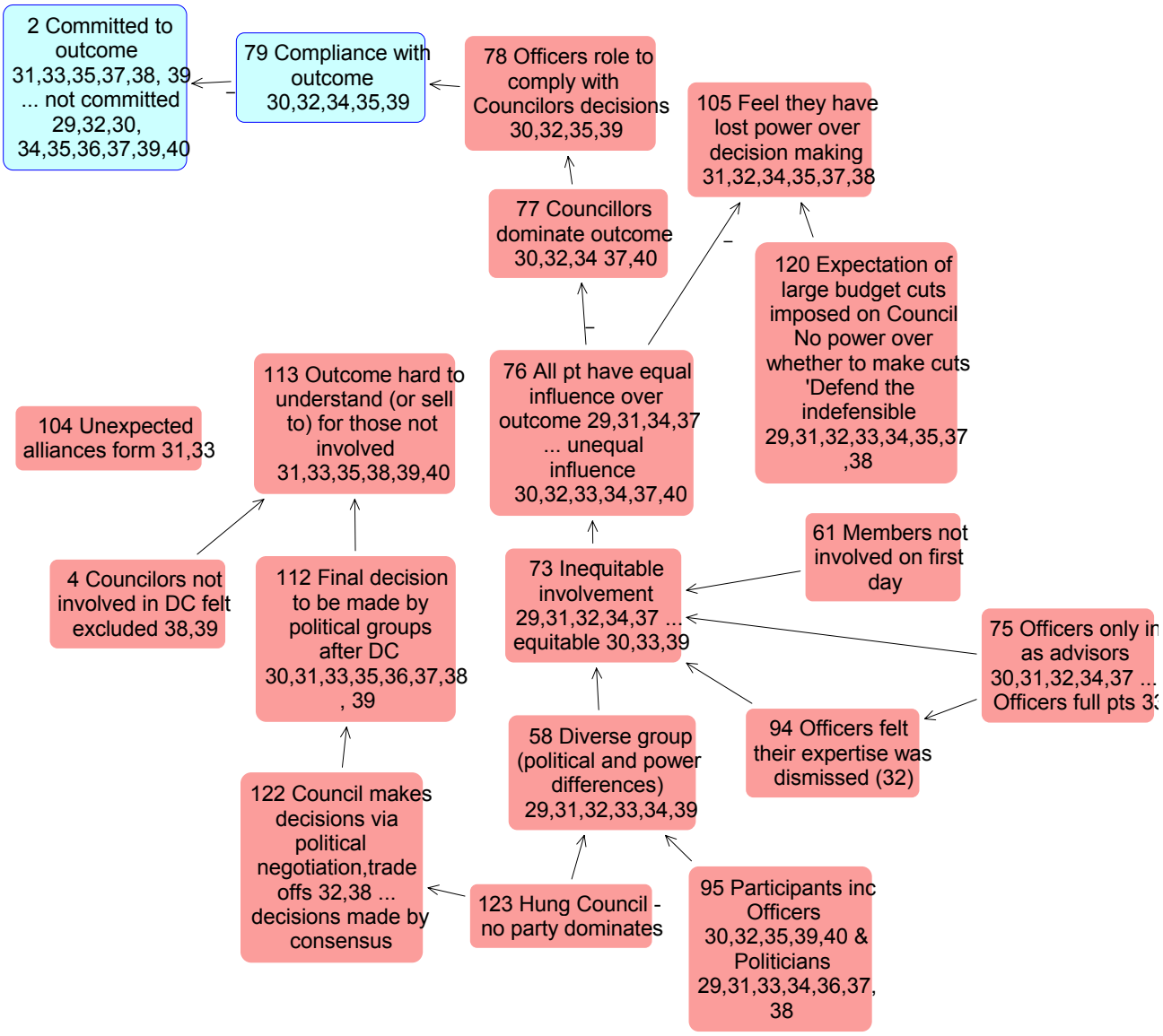
5.3.5.4 Power and Influence

The second cluster *Power and Influence* contained 17 concepts. This cluster encompasses the degree of influence individuals felt they had over the decision to be made in terms of content (how much or indeed whether to make cuts and where from) and process (control and influence over the means of making the decision). As discussed, many of these concepts emerged as potent forces in relation to the commitment cluster. Table 5-9 identifies the colour coding and specific sub elements that comprise the Power and Influence cluster, while Figure 5-5 presents a visual representation of the cluster and its link to commitment.

Table 5-9 Power and Influence

Power	➢ 4 Councilors not involved in DC felt excluded 38,39 ➢ 58 Diverse group (political and power differences) 29,31,32,33,34,39 ➢ 61 Members not involved on first day ➢ 73 Inequitable involvement 29,31,32,34,37 ... equitable 30,33,39 ➢ 75 Officers only in as advisors 30,31,32,34,37 ... Officers full pts 33 ➢ 76 All pt have equal influence over outcome 29,31,34,37 ... unequal influence 30,32,33,34,37,40 ➢ 77 Councilors dominate outcome 30,32,34 37,40 ➢ 78 Officers role to comply with Councilors decisions 30,32,35,39 ➢ 94 Officers felt their expertise was dismissed (32) ➢ 95 Participants inc Officers 30,32,35,39,40 & Politicians 29,31,33,34,36,37, 38 ➢ 104 Unexpected alliances form 31,33 ➢ 105 Feel they have lost power over decision making 31,32,34,35,37,38 ➢ 112 Final decision to be made by political groups after DC 30,31,33,35,36,37,38, 39 ➢ 113 Outcome hard to understand (or sell to) for those not involved 31,33,35,38,39,40 ➢ 120 Expectation of large budget cuts imposed on Council No power over whether to make cuts 'Defend the indefensible 29,31,32,33,34,35,37,38 ➢ 122 Council makes decisions via political negotiation, trade offs 32,38 ... decisions made by consensus ➢ 123 Hung Council - no party dominates 17 concepts

Figure 5-5 Power and Influence



This cluster is a complex one in that it contains several of the key elements underlying the dissatisfaction many felt with the Decision Conference and the outcome. This was a hung Council (#123), so the usual decision process entailed trade-offs and negotiation (#122). The history and makeup of the Council was that of a highly politicised organisation with clear power differentials.

The difficulties involved with bringing together Officers and four disparate political parties (#95, #58) were evident in comments regarding the political nature of the organisation…

> … there is no total honesty all right? You know, there's always problems ..people weighing up the political consequences of all this. S029 94-101

One individual expressed this even more strongly, stating that a process like Decision Conferencing would never work within an organisation like theirs because of the extent of internal politicking and power plays.

> Interviewer: Was there a shared understanding reached in that second workshop do you think?
>
> Officer: You've lost me somewhere along the line (laughs). The scenario you outlined is not real life, I mean, that's not how senior management groups work in this organisation… that seems to be a sort of an ideal world (not this one) which is power politics and power play and nasty compromises and scoring and power struggles generally. So it's not that one's comparing a good process with a consensual decision making up against a good process with a scoring mechanism. I think both are heavily flawed and unreliable in terms of the outcomes they produce. S032 111-123

Comments made by Members also clearly indicated a strong hierarchy within the organisation between Officers and Members:

> Well I didn't expect the officers to be because they've already done the process once… I mean I felt that this was, you know, it does say Members' Revenue Budget Workshop and, I suppose, I know them all so very well, I would have been surprised if they had taken a higher profile. S037 291-296 Councilor

This hierarchy was made clear in that Officers were included in the Decision Conference as advisors only (#73). In this case, the Director had instructed Officers that their role was to be an advisory one to Councilors, rather than as full 'scoring' participants.

> I don't know what preparation was done with the Members but what I'm saying is that it became fairly clear from the Director and on the day that we were to clarify rather than to do the scoring. S032 80-82 Officer

The Councilors were seen as dominating the outcome (#77) by over half of the participants (a perception from both Officers and Councilors). This appears to have

impacted on both the perceived level of involvement and the degree of influence participants then felt they had over the decisions being made, generating a degree of animosity and feelings of inequity (#73, #76) amongst Officers.

These feelings of resentment were compounded as Officers realized that these were decisions that they would then be required to implement as part of their area of professional responsibility (#78):

> I certainly felt disempowered by it (the process), to an extent to which I think I would have not have felt so disempowered if the officers had debated and agreed and put forward options to the Members. A lot more disempowered. S032 735-738 (Officer)

Some of the Members were obviously not aware of the Officers assigned role as advisors and where they did notice Officer's reticence during the Decision Conference, it seems they believed this could be ascribed to perceived inequalities between the two groups.

> Well, the people who weren't very involved, to my mind, were the officers… they must have felt constrained by the surroundings, you know. Officers (usually) don't say very much unless you ask them …. So I think that still spills over into this sort of meeting. So, there would be a value in trying to get officers to feel rather differently about it. To think that they should be equally.. they.. yeah, they certainly weren't equally involved. I would say it was the politicians who were driving the process forward and not the officers, who would have had the expertise in certain things. BM031 369-382 Councilor

> I felt from time to time, that we (Councilors) were leaving out the professional officers. I have to say that you have to regard this as a very difficult process for people even though you have got rules…some of the officers were in double jeopardy (in that) they had the Director of their service there (and) they had literally the council's senior politicians. S034 366-374 Councilor

This situation was exacerbated by the fact that that Councilors did not participate in the first day involving generating of options but only weighed in when it came time to 'make decisions' (#61). Both the Decision Conference process applied here and the prescribed roles of participants thus impacted on the degree of perceived influence on the decision-making process and the outcome (#76, #105).

Also of concern to a few of the participants was the issue that not all of the decision makers within the Council were invited to participate, primarily for logistical

reasons. These people therefore did not get the same opportunity to really get to grips with the issue and to understand the context of the decisions that were made.

> ..there must be some way of involving all of the Councilors. At the moment it doesn't and that means that you've been brought to a conclusion in a meeting, which has lasted all day long, and you're happy with that conclusion. You've then got to try and sell it to your colleagues, and they immediately say 'I don't agree with that' or 'I don't agree with this'. S038 1046-1051

This was then seen as undermining the perceived validity and possible implementation of the outcome (#4, #13). The issue of validity is discussed further in Section 5.3.5.5. Validity.

One of the few positive notes to emerge with regard to incorporating such diverse elements in a process such as this meant that it was possible for unexpected alliances to form (#104).

> ..there were some unusual political alliances arrived at in the process because you were forcing people to make statement and judgments on things, which they wouldn't normally do, because in a political context you never open up to somebody who in fact could take advantage. But in this circumstance it was an open discussion in a quiet environment with a rule that nothing would be played out anywhere else beyond the boundaries of that particular discussion. So people were far more honest than they would have normally been too. But that worked quite well too. S033 93-103 Councilor

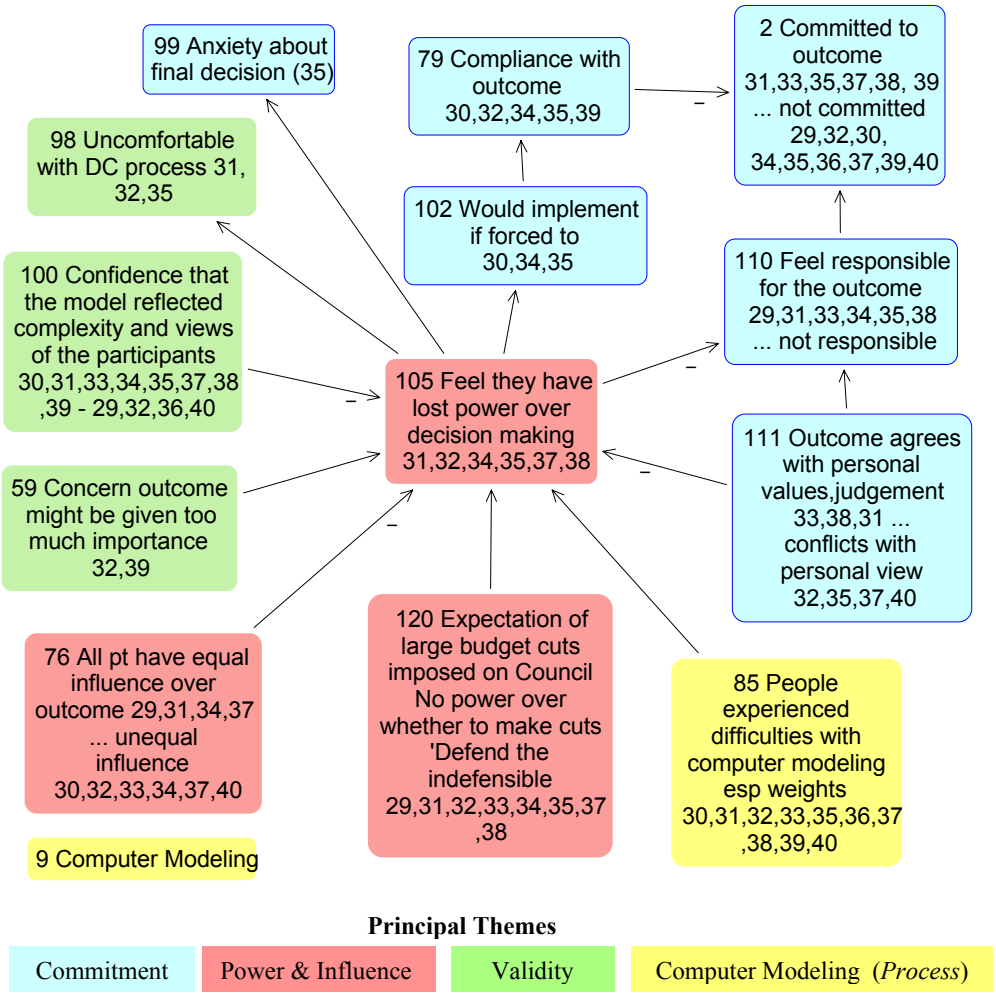
While the preceding discussion highlights a number of the various elements that make up this cluster, collapsing onto the set and reviewing the number and nature of the links reveals the central concept here to be a feeling of lost power over the decision making (#105).

Figure 5-6 (over) focuses on loss of power. Half of the participants felt they had experienced some degree of loss of power, either through the Decision Conference experience itself (e.g. their role didn't allow an equal influence over the process) or because of the imposed nature of the budget cuts (#120). This issue was a critical one for participants – especially Officers - as it ultimately influenced the degree of commitment they felt towards the outcome.

Whilst a direct link from Computer Modeling isn't evident in this figure, the line of argument was that the modeling might lead to Decision Conferencing being seen as 'scientific' (#60), which generated concern for at least two of the participants that the

outcome might be given too much importance (#59). This possible perception by outsiders that the budget cuts agreed on by the group was 'the decision' was seen as possibly downgrading the participants' influence (#105) over the ultimate decisions being made outside the Decision Conference.

Figure 5-6 Loss of Power over Decision Making



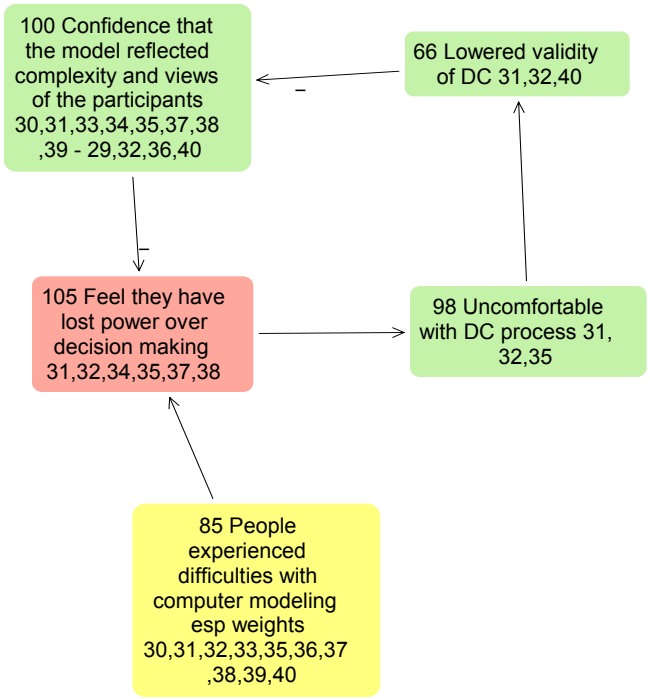
Open discussion through equitable involvement and minimising political point scoring enhanced shared understanding (#3) and decreased the feelings regarding actual or perceived loss of power for many participants (#105). This was especially the case where participants had confidence that the model reflected the views of the participants (#100).

Computer Modeling played a dual role in that on the one hand it facilitated discussion and the elicitation of explanations, but it was also seen as disempowering where it didn't allow for nuances to be explored, or where full participation was not encouraged (e.g. Officers couldn't score) or where dominant people threw up numbers and 'set the agenda'. Also refer to 5. 4 Addressing the Research Questions for further discussion of the role of computer modeling in this Decision Conference.

The Vicious Circle

A further analysis of the loss of power issue reveals what is known as a 'vicious circle' i.e. a circle of links that start from one concept and end up back at the same concept. Many within the group associated a feeling of loss of power (#105) with discomfort with the Decision Conference process (#98), leading to concerns regarding the validity of the process (#66). This concern lowered the level of confidence that some individuals had that the model truly reflected either their own views or the complexity of the issues being addressed (#100). This became a 'vicious circle' in that this then looped back to a feeling of loss of power over the decision making and the cycle was potentially repeated.

Figure 5-7 Computer Modeling and Loss of Power



From this one key issue of perceived loss of power or influence over the decision making, participants identified 11 different consequences, all of which led to either a lack of commitment (#2) or to a stronger likelihood that the options would not be implemented (#1). This issue had far reaching effects within the model.

Some examples included:

- An intention to undermine the outcome (-#124 ... undermine outcome (31, -32,34,36)).
- The feeling that it was a bad decision (-#101 ... bad decision (32,33,38,39,34 -36,40)); one they were uncomfortable with.
- Not prepared to take responsibility for the outcome (-#110 ... not responsible (33,34,35)).
- At the best they might be prepared to comply (+#79 Compliance).

In order to determine those concepts that exerted the most influence over this cluster, a *potency analysis* was conducted (refer Chapter Three for further discussion regarding this process). It emerged that two groups of concepts were highly influential with regard to this cluster: those to do with the successful management of the Decision Conference process by the facilitator and the role of Computer Modeling in the process. Specifically:

Computer Modeling

- Computer modeling (#9).
- The impact of the structured, rational framework provided by the Decision Conference process (#84).

Facilitation

- The degree to which the Facilitator was seen as successfully managing the Decision Conference process (#116).
- Whether the group was focused or prevented from being sidetracked (#117).
- Facilitator management of the time & discussion (#12) .
- The degree to which the facilitator interpreted & distilled contributions (#16) and ensured that all were included in the discussion (#35).

- The perceived 'safety' of the Decision Conference environment (#37).
- The degree of trust in the facilitator (#65).
- Previous relationship with the facilitator (#121).

As with the previous cluster we again see the critical role played by the facilitator in the Decision Conference process.

Having discussed the concepts that make up the *Power and Influence* cluster, the next section focuses on the third major theme to emerge, *Validity.*

5.3.5.5 Validity

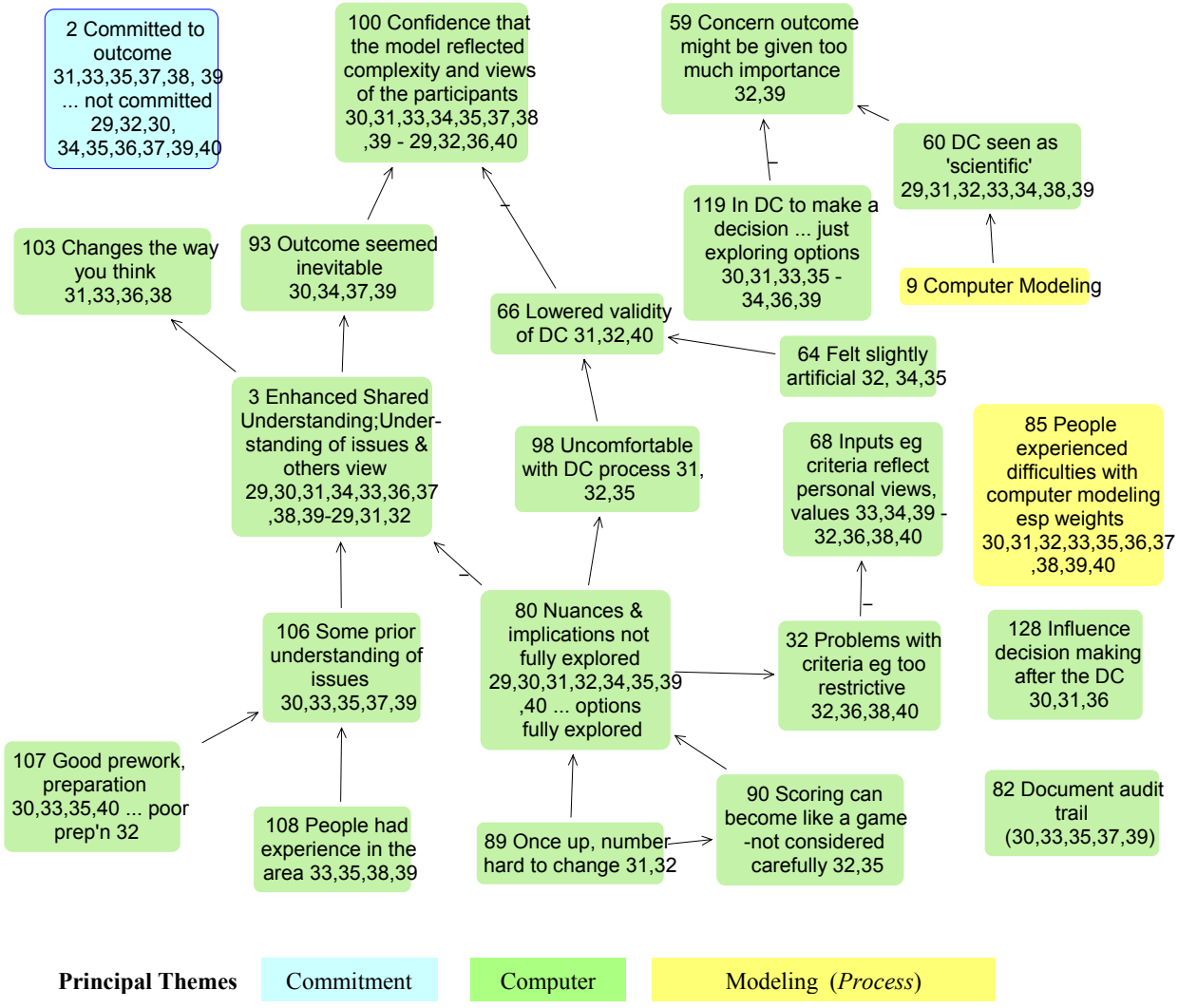
The third cluster, *Validity*, contains 20 concepts and primarily concerns the level of trust in the process and perceived validity of the process. Concepts captured in this cluster include the perceived quality and validity of the outcome, the degree to which a shared understanding of the issues and others viewpoints was achieved, overall confidence that the model reflected the complexity of the decision making, the degree of perceived congruence between participants' own values and beliefs regarding what would make a good decision (i.e. the 'best bet') and comments regarding the importance of preparatory work. Table 5-10 identifies the colour coding and specific sub elements that comprise the Power and Influence cluster, while Figure 5-8 presents a visual representation of the cluster and its link to commitment.

Table 5-10 Validity

Validity	➢ 3 Enhanced Shared Understanding; Under-standing of issues & others view 29,30,31,34,33,36,37,38,39-29,31,32 ➢ 32 Problems with criteria e.g. too restrictive 32,36,38,40 ➢ 59 Concern outcome might be given too much importance 32,39 ➢ 60 DC seen as 'scientific' 29,31,32,33,34,38,39 ➢ 64 Felt slightly artificial 32, 34,35 ➢ 66 Lowered validity of DC 31,32,40 ➢ 68 Inputs e.g. criteria reflect personal views, values 33,34,39 - 32,36,38,40 ➢ 80 Nuances & implications not fully explored 29,30,31,32,34,35,39,40 ... options fully explored ➢ 82 Document audit trail (30,33,35,37,39) ➢ 89 Once up, number hard to change 31,32 ➢ 90 Scoring can become like a game 32,35 ... not considered carefully ➢ 93 Outcome seemed inevitable 30,34,37,39 ➢ 98 Uncomfortable with DC process 31, 32,35 ➢ 100 Confidence that the model reflected complexity and views of the participants 30,31,33,34,35,37,38,39 - 29,32,36,40 ➢ 103 Changes the way you think 31,33,36,38

	➢ 106 Some prior understanding of issues 30,33,35,37,39 ➢ 107 Good prework, preparation 30,33,35,40 ... poor prep'n 32 ➢ 108 People had experience in the area 33,35,38,39 ➢ 119 In DC to make a decision ... just exploring options 30,31,33,35 - 34,36 ➢ 128 Influence decision making after the DC 30,31,36 20 concepts

Figure 5-8 Validity



This section explores the concepts making up this theme and through use of the *Collapse* function in Decision Explorer™ also highlights the connection to the central concepts associated with Commitment (#2) and Computer Modeling (#9, #85). It is important to note that when the map is not collapsed **there is no apparent direct link** to commitment (#2) from any of the concepts. What is evident if the map

is collapsed, however, is that enhancing shared understanding (#3), ensuring inputs reflect personal values and values (#68, #100), the degree of difficulty experienced with the computer modeling process (#85) and the extent to which the Decision Conference process was seen as scientific (#60) all ultimately impacted upon the development of participants' commitment. The fact that these links are not evident unless the view is collapsed indicates that even though the link exists there are a number of mediating factors. These intervening factors will be discussed further in Section 5. 4 Addressing the Research Questions.

While not illustrated here as the intersecting lines makes the diagram difficult to read, a *Collapse* on this view also demonstrates the numerous links that exist between the concepts in this theme and both modeling related concepts (#9 and #85). What emerges is that for many, computer modeling (#85, #9) meant nuances weren't fully explored (#80), numbers could become hard to change (#89) and the scoring itself became a bit of a game and judgements therefore not given due consideration (#90). As a consequence some of the group became uncomfortable with the process (#98) and both shared understanding and commitment were compromised. Computer Modeling also played a strong part in that where it enhanced shared understanding (#3), it facilitated confidence in the outcome (#100) and contributed to commitment (#2). However, where difficulties were experienced with the modeling process or people felt excluded it was seen to impact negatively on shared understanding (#3), lowered the perceived validity of the process (#66) and increased some of the participants' anxiety regarding the quality of the final decision (#99). Again, this impacted on the overall level of commitment to the outcome.
In examining the individual concepts that make up this cluster, 'Artificial' was one of the terms used in conjunction with this notion of validity. Some of the participants felt those things such as being forced to assign numbers; trying to work with such complexity in a limited timeframe; having an audience and preventing the officers from scoring lowered the validity of the Decision Conference (#66). Some of these views are captured in the quotes below:

> This second time round we did it, in a much shorter time scale.., first time with an audience of third tier managers which was slightly artificial I think and then, the second day with Members but, as you rightly say, Members played more of a part than officers..And an average perception of the two events, I have very different views about the value of validity of the two different events. S06-42 Officer

> ..here is a straight jacket element to it in that the way you're pushed to decide, the way you're pushed to divide up the service into a certain numbers of categories…what's reasonable to achieve in the space of time available to you…in a way that if you had longer, it (the outcome) might come out differently. S040, 421-439 Officer

Another critical concept in this cluster is #100 *Confidence that the model reflected complexity and views of the participants.* This concept ties this cluster to the first cluster – i.e. commitment. It is via both shared understanding and confidence that a strong team spirit is engendered, enhancing feelings of control over the decision making, the likelihood that the decision is seen as the best bet and increasing 'comfort' with the decision. As suggested earlier, Collapsing on this model demonstrates that a link exists between the judgment related issues that lead to developing a shared understanding of the issues and others views (#3) and the development of the view that based on this understanding the outcome seemed inevitable (#93 i.e. a logical development of what had gone before). Where participants believed this occurred, the result was an increase in confidence that the model reflected the complexity of the issues and views of the participants (#100). This in turn led to the perception that the outcome was the 'best bet' at that time (#101), thus generating a commitment to the outcome (#2). Eight participants felt that the model did capture this complexity.

However, what needs to be clearly understood is that the corollary of this is that where a shared understanding was not felt to be achieved (and this was strongly felt to be the case by at least three of the participants), this same line of logic followed for the opposing argument. That is, the lack of a shared understanding meant that it wasn't 'clear' what needed to be done and confidence was reduced (#93). This was then seen as contributing to a lack of commitment (#2..*not committed*).

There was a concern from the majority of participants that the model didn't really sufficiently integrate the various issues ("It doesn't take into account the knock on effect" S030 Officer); i.e. that the model didn't capture the full complexity and never really could.

> The weakness in terms of doing it for social services is the way in which you have to generalise up, you know you have, there are only so many headings and so many issues you can actually deal with um, and so therefore you, you end up with, with perhaps generalities… but that, that, I mean, and I suppose that's inevitable with anything that has such a multifaceted, er, thing and I mean if you had to do it under

> all the headings (laughs) you'd be there for weeks wouldn't you? S037, L620-627, Councilor

> I was trying to explain the issue about home care and if we bought it in the independent sector.. um.. it isn't as straightforward, you know, it costs this, ten pounds in Social Services and seven pounds in the independent sector, and you can just make that saving of three pounds in the middle, you know. .. they really didn't want my rather roundabout explanations for it. But there is a feeling that you lose out, you might get a.. a.. false figure, because you haven't actually inputted every little nuance into the model, which is why I've not got, you know, great faith in the numbers that come out. You know, they are broad directions as opposed to absolutes. S039, L571-582, Officer

> Oh, (the model) was too crude…one example was that, um, if we, over a three year period if we went to large levels of cuts we were talking about, er, very large institutional type provision for elderly people and for people with learning disability, um, which you couldn't apply a kind of quality of life issue to it, because it's a lot subtler that is, it, it was just being driven primarily by finance and the three criteria that we'd set and so on and if there were other criteria that were applied to it then I think that we may have had, made maybe not <E greatly E> different decisions but I think when you're into whether you give five or three to things then the weightings might actually have been influenced in, in a greater way because of the, of having more factors to deal with. S036, L179-191, Councilor

Two participants also suggested that not only was it not possible to take into account all of the subtleties, but that this resulted in the Decision Conference process being used as a means of not taking responsibility for the decision (#31 – part of the C*ommitment* cluster) e.g.

> Now I accept decisions have to be made but to attribute a hard mathematical weighting and then make a decision on that basis I think is . . dishonest in a way, avoiding really weighting (sic) up the implications… S032, L632 –634, Officer

Even where people felt that the model did reflect what had taken place, there were still concerns (especially from two of the Officers) about the weight it might carry outside the Decision Conference (#59).

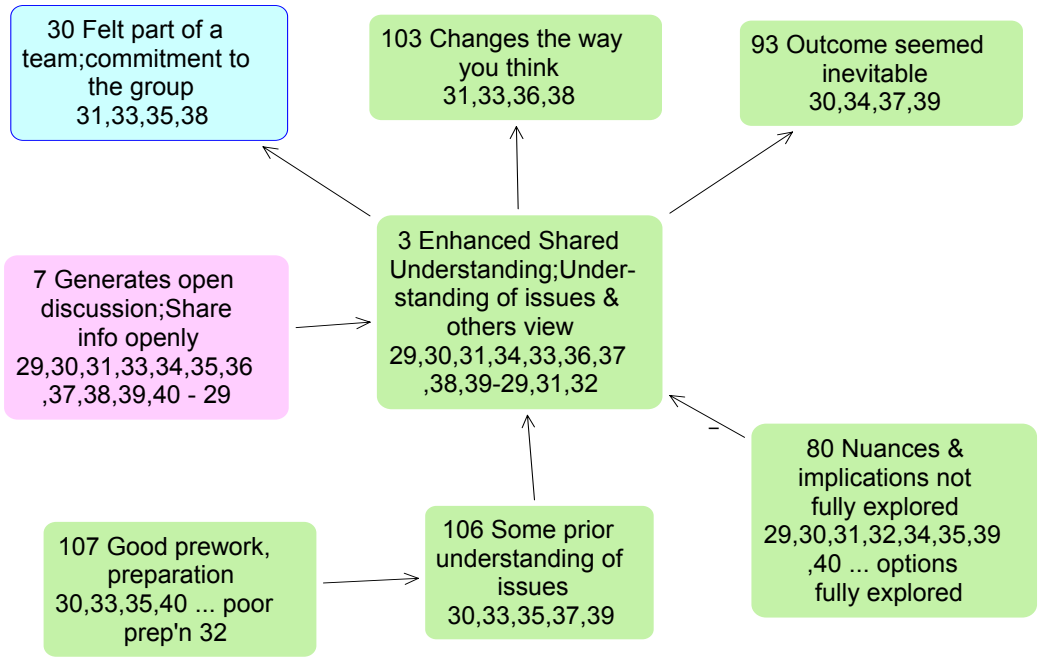
> I think I felt that the outcome.. was reflective of what had gone on before, so it didn't throw up complete surprises. Um.. I think that you know, as officers, I was certainly worried, and people are sort of.. were worried that, you know, it always makes it look easy that you can cut all these millions off your budget, 'cause some mathematical model has told you, you can, you know and.. and you still do some of the things you think are important. But I think we were fairly terrified

> that Members would all go away and think right, this is how we're gonna do it, and you know, they made it easy for us and that has been a major theme around decision conferencing anyway, and you know, it's quite a risk to do it with Members. Um.. So, you know, the.. the things that came through would reflect some of the discussion that went on, but there's the major anxiety, which is being confirmed at the moment um.. that Members will just say well, you could do it in decision conferencing and you put it forward, so get on with it. S039, L245-249, Officer

For some this came back to intent i.e. whether they saw themselves as either there to make a decision or just to explore the options (#119).

One of the central elements in this cluster and in the study overall is the concept of shared understanding (#3), a graphical exploration of which is presented in Figure 5-9. Nine of the twelve participants felt that they had reached some degree of an enhanced level of shared understanding i.e. they felt that they had a better grasp of both the issues and others views.

Figure 5-9 Exploring Shared Understanding



As illustrated in this figure, the key contributing concepts here included the generation of open discussion (#7), ensuring nuances and implications were fully

explored (#80) and coming to the Decision Conference with at least some degree of prior knowledge of the issues (#106) which in turn was largely as a result of experience in the area and pre conference preparation (#107, #108). Preparation for the conference was specifically mentioned by five of the participants as important in getting to grips with the issues (#107).

However, while the group felt that they had gone a fair way to achieving a shared understanding, the majority (8/12) felt that the issues had not been fully explored e.g.

> We got a fair way towards that point (shared understanding), but we could have gone further if we'd had more time.. you would always find that you were leaving it (the point of discussion) when there was a bit more in there to discuss. S031 L147-153 Councilor

Enhancing the degree of shared understanding was also seen by four of the participants as changing the way they thought about the issues, with potentially longer term consequences for the ways they considered these issues even after the Decision Conference (#128).

In order to determine those concepts that exerted the most influence over this cluster, a *potency analysis* was conducted. It emerged that two concepts were highly influential i.e. #123 (*Hung Council – no party dominates*) and #61 (*Members not involved on the first day*). These were closely followed by 14 concepts of equal potency, all except one (#9 *Computer Modeling)* were related to either facilitation of the Decision Conference process or to theme of power and influence i.e.:

Facilitation

- The degree to which the Facilitator was seen as successfully managing the Decision Conference process (#116).
- Whether the group was focused or prevented from being sidetracked (#117).
- Facilitator management of the time & discussion (#12).
- The degree to which the facilitator interpreted & distilled contributions (#16). and ensured that all were included in the discussion (#35).
- The perceived 'safety' of the Decision Conference environment (#37).
- The degree of trust in the facilitator (#65).
- Previous relationship with the facilitator (#121).

Power & Influence

- Perceived equity of participant involvement (#73).
- Perceived degree of involvement of officers i.e. as advisors or full participants (#75) and whether Officers felt that their expertise was valued or dismissed (#94).
- The diversity of the group in terms of both political and power differences (#95, #58).

Once again it emerges that the power structure of the Council and the role of the Facilitator were fundamental to participant perceptions of outcomes in this particular Decision Conference.

Having discussed the concepts that make up the *Validity* cluster, the next section focuses on the final major theme to emerge, *Process.*

5.3.5.6 Process

This final cluster is made up of 27 concepts, centred on process issues and contains two distinct but related sub-groupings:

- Computing Modeling (15 concepts) – yellow.
- The Role of the Facilitator (11 concepts) – pink.

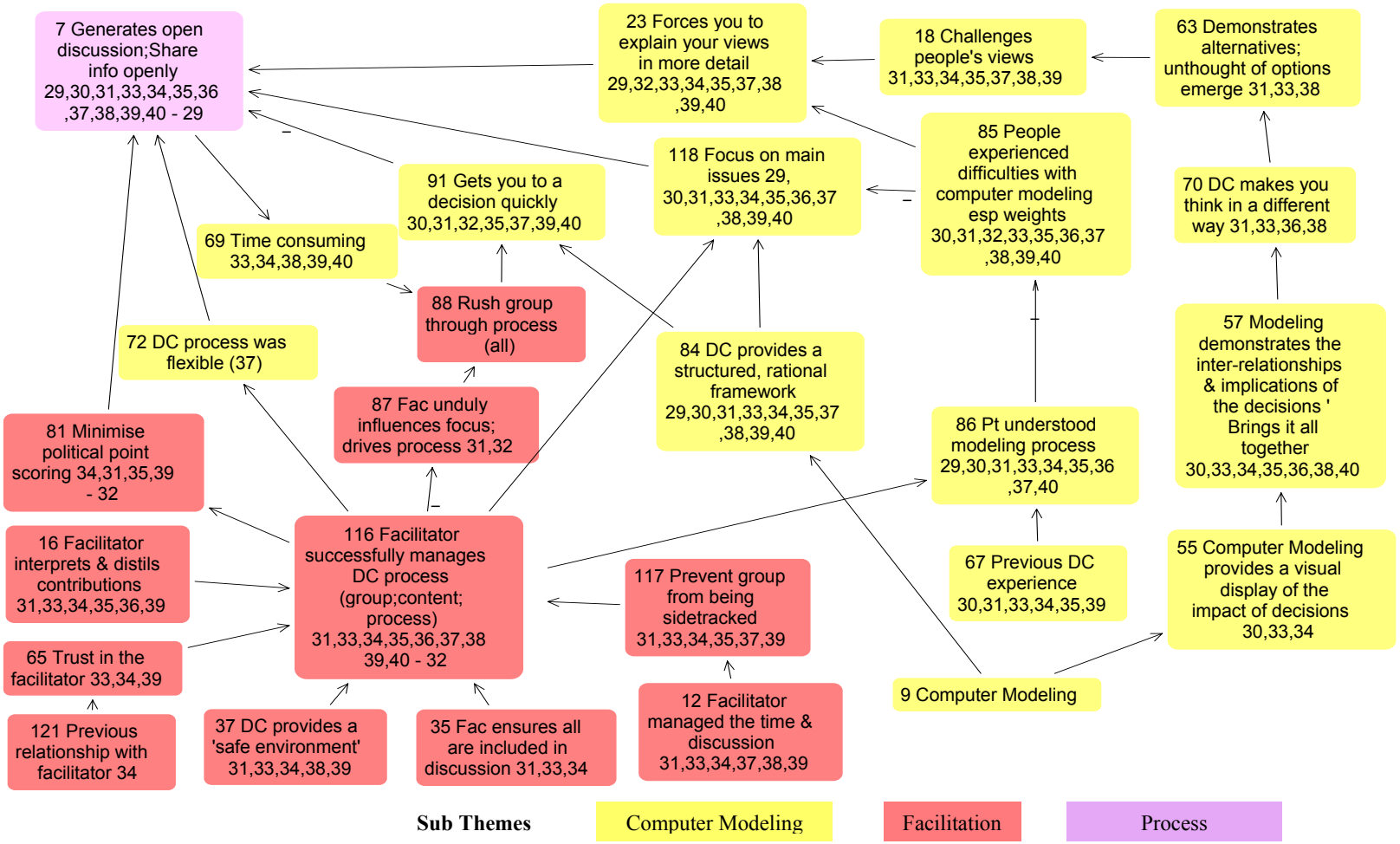
Concept #7 *Generates open discussion* also forms part of this cluster.

Table 5-11 (over) identifies the colour coding and specific sub elements that comprise the Process cluster, while Figure 5-10 presents a visual representation of the cluster and its link to commitment.

Table 5-11 Process

Sub-themes	Components
General	➢ 7 Generates open discussion; Share info openly 29,30,31,33,34,35,36,37,38,39,40 - 29 1 concept
Computer Modeling **Computer Modeling**	➢ 9 Computer Modeling ➢ 18 Challenges people's views 31,33,34,35,37,38,39 ➢ 23 Forces you to explain your views in more detail 29,32,33,34,35,37,38,39,40 ➢ 55 Computer Modeling provides a visual display of the impact of decisions 30,33,34 ➢ 57 Modeling demonstrates the inter-relationships & implications of the decisions ' Brings it all together 30,33,34,35,36,38,40 ➢ 63 Demonstrates alternatives; unthought of options emerge 31,33,38 ➢ 67 Previous DC experience 30,31,33,34,35,39 ➢ 69 Time consuming 33,34,38,39,40 ➢ 70 DC makes you think in a different way 31,33,36,38 ➢ 72 DC process was flexible (37) ➢ 84 DC provides a structured, rational framework 29,30,31,33,34,35,37,38,39,40 ➢ 85 People experienced difficulties with computer modeling esp weights 30,31,32,33,35,36,37,38,39,40 ➢ 86 Pt understood modeling process 29,30,31,33,34,35,36,37,40 ➢ 91 Gets you to a decision quickly 30,31,32,35,37,39,40 ➢ 118 Focus on main issues 29, 30,31,33,34,35,36,37,38,39,40 15 concepts
Facilitation (Fac) **Facilitation**	➢ 12 Facilitator managed the time & discussion 31,33,34,37,38,39 ➢ 16 Facilitator interprets & distils contributions 31,33,34,35,36,39 ➢ 35 Fac ensures all are included in discussion 31,33,34 ➢ 37 DC provides a 'safe environment' 31,33,34,38,39 ➢ 65 Trust in the facilitator 33,34,39 ➢ 81 Minimise political point scoring 34,31,35,39 - 32 ➢ 87 Fac unduly influences focus; drives process 31,32 ➢ 88 Rush group through process (all) ➢ 116 Facilitator successfully manages DC process (group; content; process) 31,33,34,35,36,37,38,39,40 - 32 ➢ 117 Prevent group from being sidetracked 31,33,34,35,37,39 ➢ 121 Previous relationship with facilitator 34 11 concepts

Figure 5-10 Process



Computer Modeling

This sub theme included perceptions of the modeling process and its implications. Issues revolved around difficulties with the computer modeling as well as positive aspects of the modeling process.

The actual process of producing preference scales for each area, and then assigning both within criteria and across criteria weights was identified by all 12 participants as contributing to their understanding of the issues. For example:

> ..it (computer modeling) gave some of them greater understanding of what the issues were within Social Services. S036 L89-91, Councilor

and from another participant…

> Interviewer: Do you feel then that going through that process - the modeling process - impacted on your understanding of other people's feelings about the issues?
>
> Participant: Oh yes. I think there were again two aspects, certainly feelings of the professional officers that were there with us. They were able, I think more able to fully explain their feelings about the necessity for the service, its importance to people's lives, how interconnected (it is) with other services. S034, L189-196, Councilor

As this last comment indicates, it wasn't so much the numbers themselves as the debate which numbering engendered that was seen as most beneficial. Assigning values was seen as a catalyst for sometimes quite vigorous discussion. Some typical comments include:

> ..we didn't always agree on the ratings and we had a number of quite lengthy discussions where there were big variations. S035, L153, Officer
>
> There was a fair amount of argument going on actually, at that stage. And this is when the big discussion came on about "Were children the most vulnerable, or were the elderly the most vulnerable?" S038, L279-283, Councilor

The assignment of numerical values was also seen by three participants as virtually forcing people to reveal their position, to present their point of view (#23), for example:

> Well, it forces them to reveal themselves and so, yes, I did, you know, I probably got more, quicker, than I would have done in an ordinary conversation. S039, L132-134, Officer

> ..in a way, it should always (make) more explicit people's prejudices and people's starting positions, although it's disguised in numbers rather than social philosophy. S032, L532-535, Officer

Observing how others rated each of the items and listening to their rationale was also a means of getting some of the participants to rethink their own positions:

> It was interesting to see where other people scored and what people said. I think it challenges your own values; what is more important, Meals on Wheels for example for a person or family support for a child at risk? I mean, to an extent they're impossible comparators but actually you have to make those comparisons. SO35, L143- 148, Officer

> ..they've been asked questions and other people will pass a comment on what they've just said and that will make them think again and perhaps come up with some other arguments for what they've said… there's a lot more thoughtful argument I think, about what's going on there. S031, L716-720, Councilor

If the Decision Conference was structured appropriately it was thought that this would ensure that sufficient (but not too much!) time would be allowed for people to explore pertinent issues and to develop a full understanding of the complexities involved and the implications of the decisions being made. All of the participants felt that they were rushed for time (#88) and that they didn't have sufficient time to explore the complex issues they were trying to come to terms with:

> ..I think some services are more complex and you need a lot of talking. There wasn't.. you know there's not the space to do a lot of talking, particularly let's say, with people who are not Members of the Social Services Committee. S039 35-38 Officer

Nor was there much time for sensitivity analysis at the end of the Decision Conference. One participant in particular saw this as potentially bringing the final outcome into question i.e.

> We whizzed through it in about twenty minutes because we had to go and that was a bit unfortunate because I think if we'd had a bit more time to have thought it through, we might have come up with different results. S031, L346-349 Councilor

There was also some suggestion in this interview that the facilitator didn't think the areas of concern would have made much of an impact even if they were changed, however there was very little opportunity for the participants to judge this for themselves (S031, L775 – 785).

The majority of participants (10/12) either personally experienced difficulty with the computer modeling, especially the assignment of weights, or felt others did.

> The issue about when you've got your columns up and they've all got a number against them, and you're then moving on to your next area of reduction, and you're trying to do the balance between the others, well.. you said that was a forty, and actually you're saying this is now a thirty, and the next jump up would be a sixty. But that jump up would be 120. I'm just.. giving you an illustrative example. I think that's quite hard to get a feel for how big is it?..You know, what is the comparative size, you know? Is 20-40 much, much smaller than 30-120, you know? Is it four times as much, you know? …I can get it for individual bits, but then when you're trying.. and (the facilitator) does this comparing across, I mean, on occasion I got completely lost…from my discussions with other people, that was the area where.. some of us started to get lost. S039, L172-193, Officer

Yet despite the fact that almost everyone in the group experienced the same difficulties, there was some reticence in coming forward as people didn't want to lose face:

> ..it's one of these things where you can feel stupid, 'cause you think everyone else understands. Because they're all saying, 'oh yes, oh yes I see' - but when you speak to people afterwards, they (also felt the same way) So I think that because it's complicated there can perhaps be a lack of.. confidence that what I'm saying actually is making sense, and so sometimes it's going a bit quiet, or it means I don't want to look really silly. S039, L202-209, Officer

Computer modeling was seen as a facilitating factor in that it revealed people's thoughts and generated discussion. It was an important trigger for discussion and forcing people to make comparisons that might otherwise seem impossible (#57, #70, #63, #18, #23, #7).

Facilitation

One of the central influences ultimately leading to the development of a shared understanding within this case was the role of the facilitator. Some aspect of facilitation was identified by all of the participants as contributing to a sharing of views and fostering a productive discussion. For example, a skilled facilitator was seen as important in creating a 'safe' environment where people felt able to express their views openly.

> ..it was an open discussion in a quiet environment with a rule that nothing would be played out anywhere else beyond the boundaries of that particular discussion. So people were far more honest than they would have normally been too. S033 99-103 Councilor

In setting these ground rules, the facilitator was also seen as playing a role in minimising the degree of political point scoring and domination by individuals that might otherwise take place.

> …if you set the agenda and the ground rules initially as (facilitator's name) does.. it provides the facilitator (name) and other members of the group an opportunity to stop powerful people from just holding the floor all the time. S039 79-85 Officer

Part of the perceived benefits of a skilled facilitator was the person's ability to structure the process to ensure that participants got through the day ("We wouldn't have got through without him") and to see that they achieved their objectives;

> (the facilitator) acting as the catalyst really, he was pushing us along, he was managing the time .. (and)…at the end of the day we got to do everything we had to do, (although) we were a bit rushed for time. S033 49-52 Councilor

Providing this structure and guidance was also perceived as ensuring that sufficient time was allowed for discussion so that participants could explore the complexities and implications of their decisions and thus develop a greater shared view of the issues being addressed.

However, while these were things identified by the participants as important to the process of gaining a shared understanding, there were instances where they felt this 'ideal' hadn't quite been achieved. At least half of the group felt that the day had been too rushed (thus not allowing for a full exploration of the issues) and at least three were quite cynical about the degree to which politics were (or could have been) removed from the process.

Overall, the majority of the participants felt that the crucial link in Decision Conference in general and in developing a shared understanding in particular hinged on the expertise of the facilitator:

> I think the whole thing stands or falls by the facilitator S031 162 Councilor

> So I think that the whole process depends absolutely on having confidence in two things, - one is the facilitator and the second one is

> that the other people, particularly in this political environment, are going to keep their word about - call it confidentiality, but it is not a case of taking it down and using it as evidence against you at a later stage. S034 286-291 Councilor

Successful management of this second issue regarding the impact of the culture and the associated importance of taking into account the organisational context is also heavily dependent on the skill of the facilitator.

The corollary of this dependence on a strong 'guiding hand' was that possessing this degree of influence also opened up avenues for abuse of that power and while this was a minority view it is worth noting:

> I think the guy with the pen is in a very powerful position and I felt he was using that power too much and if two figures were called out as a sort of start, let's start with a 5 or a 10 or whatever, and he really can write down whichever of the two he wants…so I felt he was having a much larger impact on the outcome than I recall from the time before or was happy with… I was uncomfortable with who he was listening to, who he was attributing authority to in that setting and I guess he was playing to the, um, the most powerful political group. S032 700-714 Officer

The facilitator was seen as critical in assisting participants to come to grips with the process…

> (the facilitator) was able to teach us quickly how to use the, um, the, er, system, the process(.) so we could understand it. S035 503-505 Officer

Where people had difficulties with the modeling process, it was also evident there that the role of the facilitator was a crucial one and was also designed to alleviate frustration.

> (The facilitator) actually gave an example because it was getting to that stage where the Members'd question every single one and they couldn't get this understanding in and I think he actually worked one out to show them what it would be at the end S030, L321-330, Officer

In the end, when people did get completely lost, it was their degree of trust in the facilitator that would carry them through.

As discussed earlier, creating an environment conducive to open discussion and a safe exchange of views was an important part of the facilitator's role. The Decision Conference also took place within a more private arena, away from the public eye of the conventional Council and Committee meetings.

Such an environment was seen to foster a higher degree of involvement thus leading to a more productive discussion and a greater understanding of the complexities and implications of the issues being faced. Again as raised earlier, a few of the participants felt that the establishment of ground rules (including confidentiality) acted as a mitigating factor regarding the degree of political point scoring which might otherwise have taken place.

> ..in a seminar like that ..nobody can really score any points off each (other).. the two larger parties …I mean, we dare not admit that publicly, but we do have a lot in common. PD038 717 - 720

> You're not trying to score political points, you see… whereas in the Council Chamber, you know, half the time you're just trying to get the Press to run something about what your point of view is…BM031 89-92

However this was not a universal view within the group, as at least three people felt that the highly politicised nature of the organisation meant that it wasn't feasible to expect totally open and honest communication to occur whatever precautions the facilitator or the group might take.

As both computer modeling and facilitation emerged strongly as drivers in discussion of preceding themes, it is not surprising that a potency analysis failed to reveal any clear drivers for this cluster. In essence, many of the concepts in this cluster are the fundamental drivers of this Decision Conference experience.

5. 4 Addressing the Research Questions

The central question in this study is

> To what extent is the modeling process perceived by participants as leading to the development of a shared understanding and commitment to action in the application of Decision Conferencing to strategic issues?

This section examines each of the sub questions raised here and what the findings drawn from Case 1 MBC reveal in relation to those questions.

Note that as the concepts identified in this section have all been discussed previously in relation to the various principal themes, they have not been dealt with in detail

here. The focus is on addressing the research question and identifying the relationships rather than exploring each concept at length.

5.4.1 Computer Modeling & Shared Understanding

From this central question, the first two research sub-questions concern the perceived relationship between the computer modeling process and shared understanding i.e.

Research Question 1.1	Is the Modeling process perceived by participants as generating a Shared Understanding of the issue(s) to be addressed?
Research Question 1.2	What is the perceived relationship between the key aspects of the modeling process and the development of a Shared Understanding?

These interrelated questions were directly addressed by tracing the paths between the two key computer modeling- related concepts:

- Computer modeling (#9) – selected as this concept also captures the other computer modeling concepts (except #85 below) via direct links;
- People experienced difficulties with computer modeling especially weights (#85);

and shared understanding, as represented by concept #3 i.e.

- Enhanced Shared Understanding; Under-standing of issues & others view (#3).

An initial examination of concept #3 (shared understanding) in the cognitive map in Figure 5-11 shows that the answer to the first question is not a simple one. Although the majority of responses show support for the efficacy of modeling in promoting shared understanding, a substantial number of responses indicate that the structured rational process provided by the modeling meant that at times they felt too rushed and this detracted from the level of understanding that could be reached. Furthermore, two participants register in both the positive and negative poles of the shared understanding concept, i.e. responses S029 and S031 – a finding which may be interpreted as ambivalence on the part of these interviewees about the extent of their shared understanding as generated by the modeling process.

To throw some light on how these findings may be explained, a closer examination of the possible relationship between modeling and shared understanding was undertaken. To achieve this, a Path Analysis was conducted, first regarding possible

routes from concept #9 *(Computer Modeling),* to concept #3(*shared understanding),* then from concept #85 *(People experienced difficulties with computer modeling esp weights)* to concept #3*(shared understanding)*.

Figure 5-11 Computer Modeling & Shared Understanding (1)

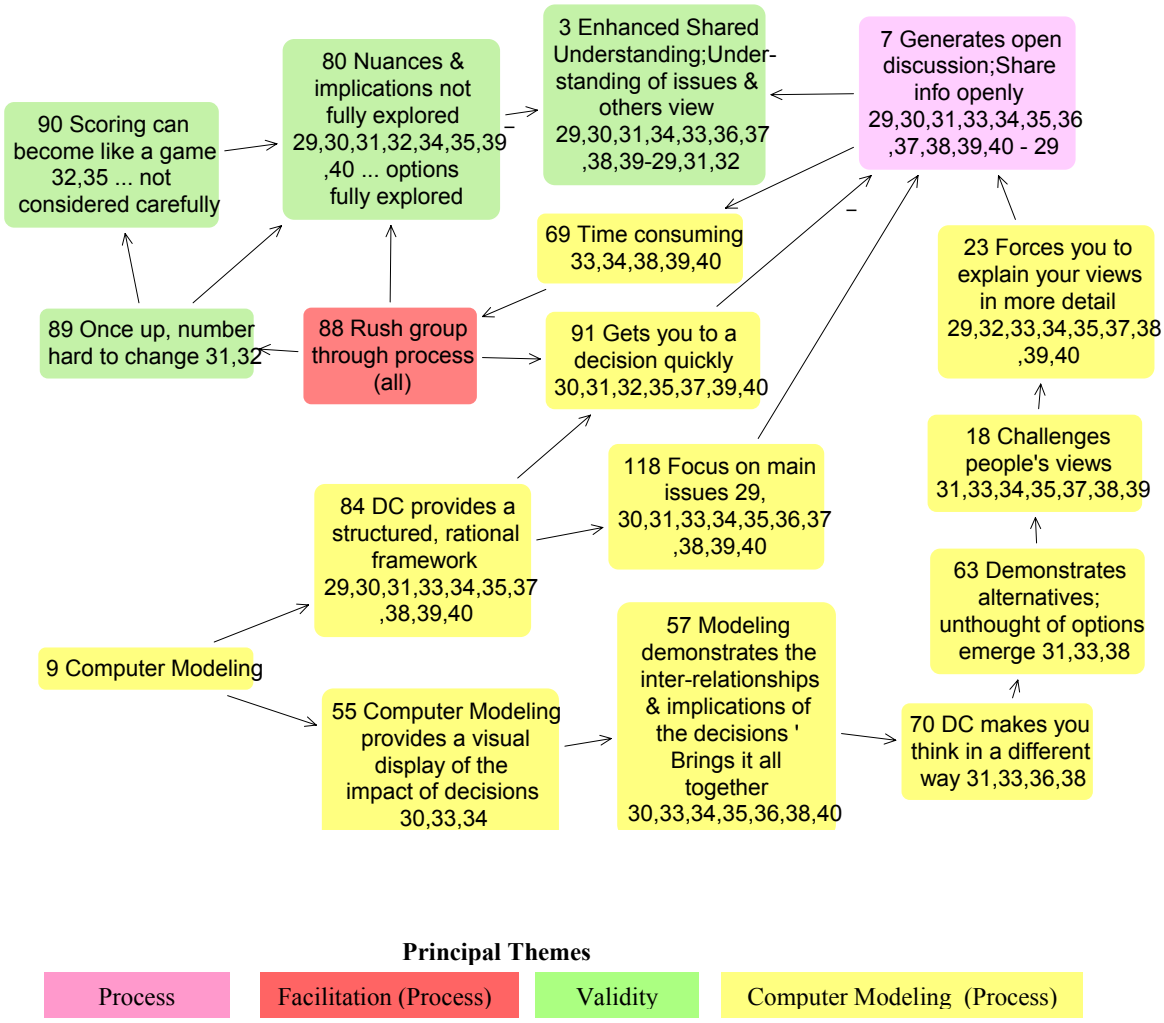


Figure 5-11 shows there are 12 paths or routes that can be traced from the computer modeling (#9) to the development of a shared understanding within the group (#3). In terms of supporting the positive link between computer modeling and shared understanding, the main arguments were that:

- The use of computer modeling provided a structured rational framework (#84) that ensured the group focused on the main issues (#118) generating discussion (#7) thus enhancing shared understanding (#3).
- The computer modeling demonstrated the interrelationships and implications of decisions (#55,#57) causing people to either think differently (#70,#63,) or challenge their views (#18) thus generating further debate and discussion (#23, #7) and again enhancing shared understanding (#3).

Areas where the computer modeling was seen as having a negative effect in the development of a shared understanding included:

- While the use of computer modeling provided a structured rational framework (#84), this framework and surrounding process (tight timeframe) meant that the decision making felt rushed (#88). As a consequence it wasn't always possible to explore the nuances of the various issues being addressed (#80), thus reducing the perceived level of shared understanding.
- There was also a feeling that once numbers went up they could become 'set' – i.e. hard to change (#89), especially given the time pressures the group was facing.
- Two of the participants explicitly stated that the scoring became a bit like a 'game' and were concerned that this meant the issues weren't being considered carefully enough (#90), again impacting negatively on the perceived level of shared understanding attained.

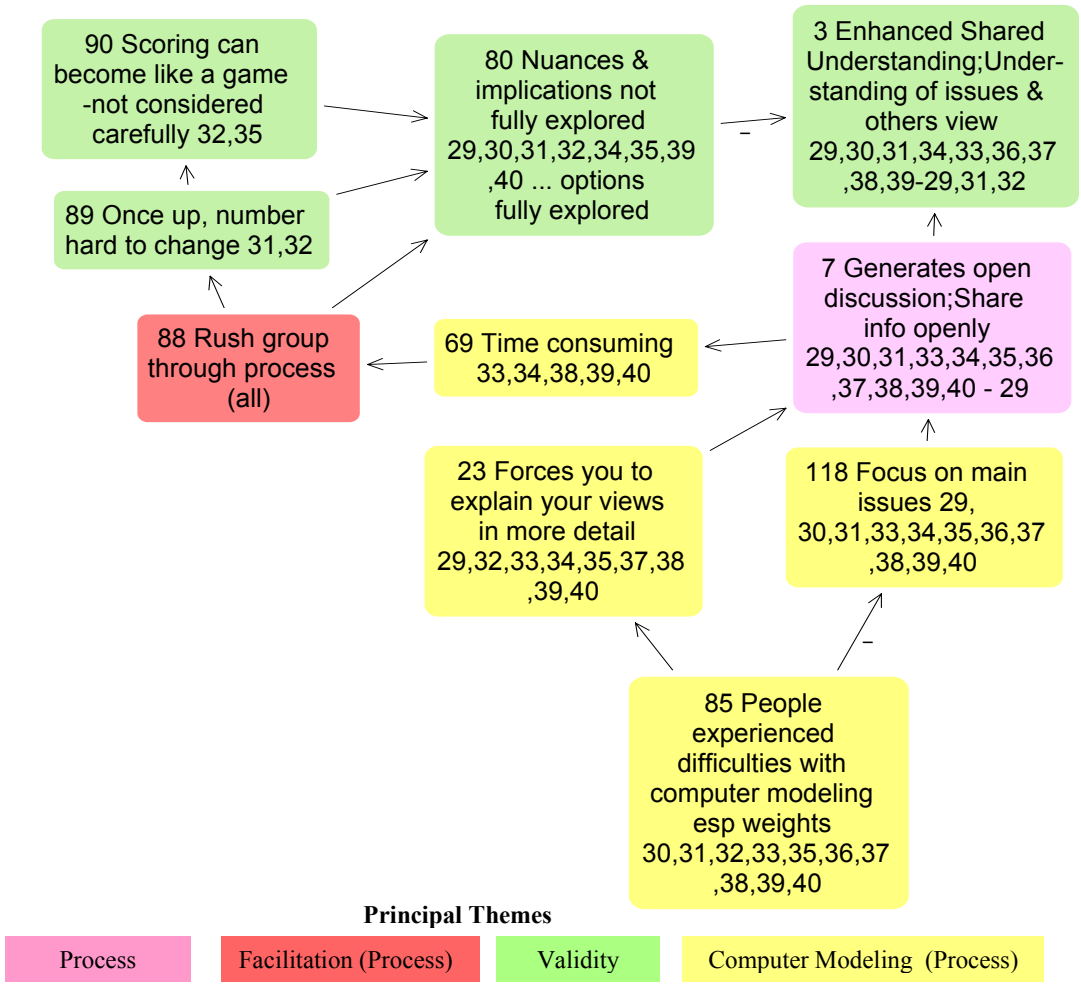
Clearly the focus on key issues and the generation of open discussion were critical factors here.

As indicated, in exploring the relationship between computer modeling and shared understanding, the other important concept to track through was that relating to participants' concerns or difficulties with the computer modeling experience, (#85). A path analysis indicated 8 routes linking these concepts. These are illustrated in Figure 5-12 (over).

Difficulties with the computer modeling had both positive and negative consequences on the perceived level of shared understanding. Where the difficulties took the focus away from the main issues (#118), this impacted negatively on shared understanding. However, in some instance the problems in fact meant that people

were forced to explain their views in more detail (#25), thus enhancing discussion and debate (#7) and positively impacting on shared understanding. However, once again, this greater exploration meant more time was consumed (#69, #88) and thus nuances were not always explored to the degree many of the participants would have liked (#80). The problems with the modeling were also linked to the perception of scoring as a game (#90) and making the numbers 'hard to change' (#89), again reducing the perceived level of shared understanding.

Figure 5-12 Computer Modeling & Shared Understanding (2)



In summary, it would appear from participants' perceptions in this case study, that the structure and rigour of the computer modeling in Decision Conferencing has the capacity to generate a shared understanding of the issues under discussion. Its perceived success was mediated by the extent to which discussion, questioning and

the open expression of views were either explored or cut short due to time constraints.

5.4.2 Computer Modeling & Commitment to Action

The next two research questions concerned the perceived relationship between the computer modeling process and the development of commitment to action i.e.

Research Question 2.1	Is the Modeling process perceived by participants as generating a Commitment to Action?
Research Question 2.2	What is the perceived relationship between the key aspects of the modeling process and the development of Commitment to Action?

These questions were again directly addressed by tracing the paths between the two key computer-modeling related concepts:

- Computer modeling (#9) – selected as this concept also captures the other computer modeling concepts (except #85 below) via direct links;
- People experienced difficulties with computer modeling esp weights (#85);

and Commitment i.e.

- Committed to outcome (#2).

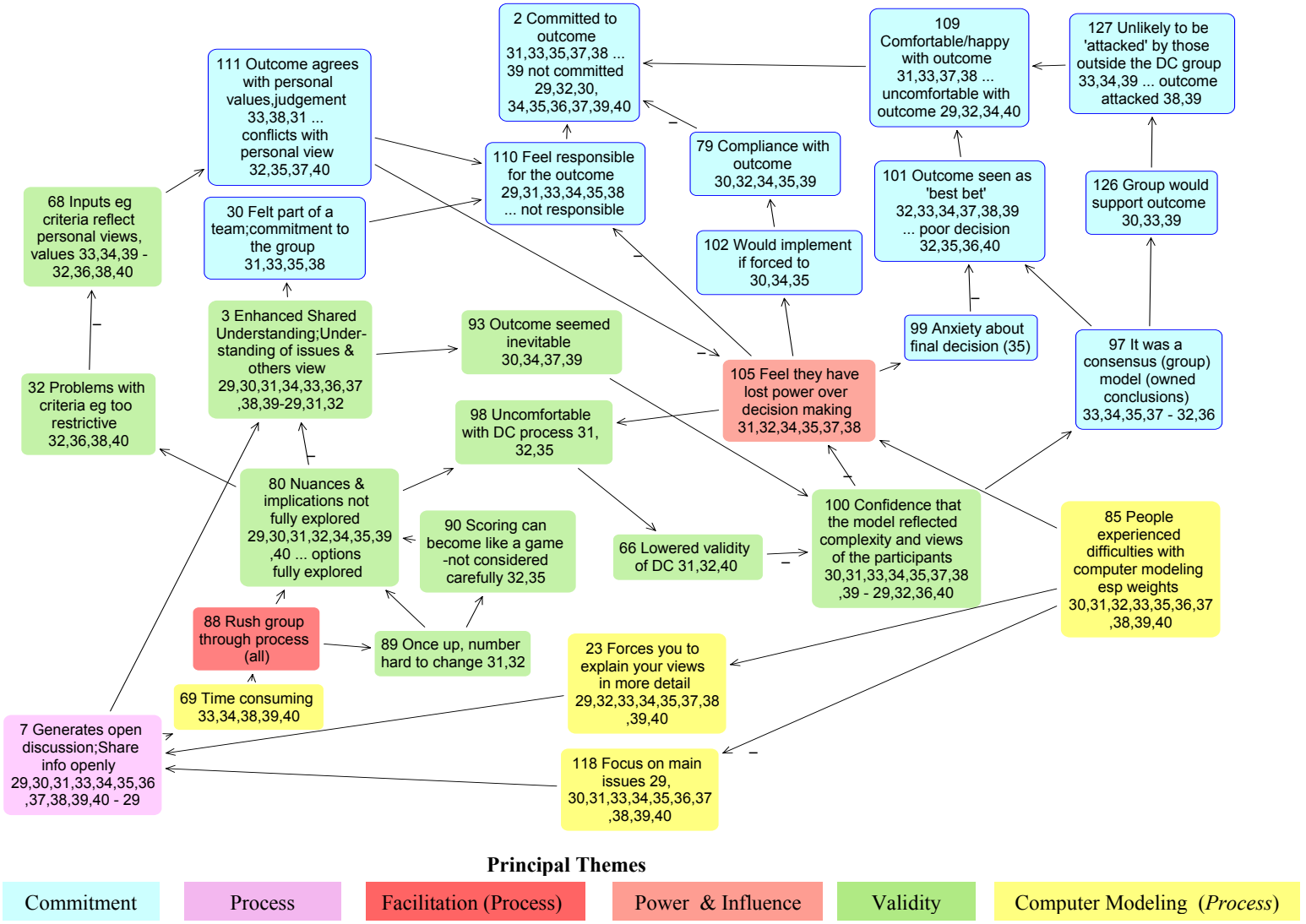
Following is an exploration of the links between the two concepts related to computer modeling and the central concept of commitment.

A) The Link between Computer Modeling (as represented by #85) and Commitment (#2)

As indicated, in this analysis computer modeling is primarily represented by two concepts. This section explores the first concept identified i.e. #30 *Concerns and/or difficulties with the computer modeling process.*

Path analysis revealed 119 possible routes involving 29 concepts between concerns or difficulties with the computer modeling (#85) and whether or not participants felt committed to the outcome (#2). The consequence of 56 of these paths was a potential reduction in commitment to act on the outcome. However, experiencing difficulties did not necessarily preclude commitment.

Figure 5-13 Computer Modeling (as represented by #85 - Difficulties) and Commitment (#2)



The absence of perceived problems in relation to computer modeling (#85) was seen as generating commitment via 56 different paths, however many of these are only minor variations encompassing similar concepts.

Where people experienced difficulties with computer modeling (#85) this lead to a feeling of loss of power over decision making (#105), discomfort with the decision conferencing process (#98) and lowered the perceived validity of the decision conferencing process (#66) potentially reducing confidence that the model reflected the complexity and views of the participants (#100). A potential consequence of this was a lack of the ownership or feeling that it was a consensus or group model (#97), a feeling that the decision was not supported by the group (#126) or that it was a poor decision (#101), discomfort with the outcome (#109) thus reducing the level of commitment (#2).

Where people felt that they had lost power over decision making as a consequence of difficulties with computer modeling, this potentially lead to a feeling that they were not responsible (#110), again reducing commitment (#2). For some, loss of power implied that they would implement if forced to (#102), thus they were compliant (#79) but not committed (#2). A feeling of loss of power was also important because this led to anxiety about the quality of the final decision for some (#99, #101), making them uncomfortable with the outcome (#109). Owing to this perceived loss of power (#105) some participants became uncomfortable with the Decision Conferencing process (#98, #66), reducing confidence that the model reflected the complexity and views of the participants (#100). Again this reduced the notion of ownership (#110) and impacted negatively on commitment (#2).

Discomfort with the process as a result of problems with the modeling also fed back into a feeling of loss of power (#105), to some extent creating a feedback loop or vicious cycle.

Difficulties with computer modeling (#85) at times also generated more discussion (#23, #7). This took time (#69) and thus the group felt rushed (#88). As a result of this time pressure, nuances and indications weren't always fully explored (#80), problems were experienced with the criteria although there wasn't enough time to revisit these (#32,68) and some concern that the outcome conflicted with personal views (#111). This potentially led to feeling not responsible for the outcome (#110) and again led to a potential reduction in commitment (#2).

Another potential result of feeling that nuances and indications were not always explored (#80) was a negative impact on shared understanding (#3). This potentially led to not feeling part of the team or committed to the group (#30) again reducing personal responsibility for the outcome (#110).

Two of the participants mentioned that scoring at times became like a game, with the issue at stake not being considered carefully enough (#90). This again affected perceived decision quality and ultimately commitment.

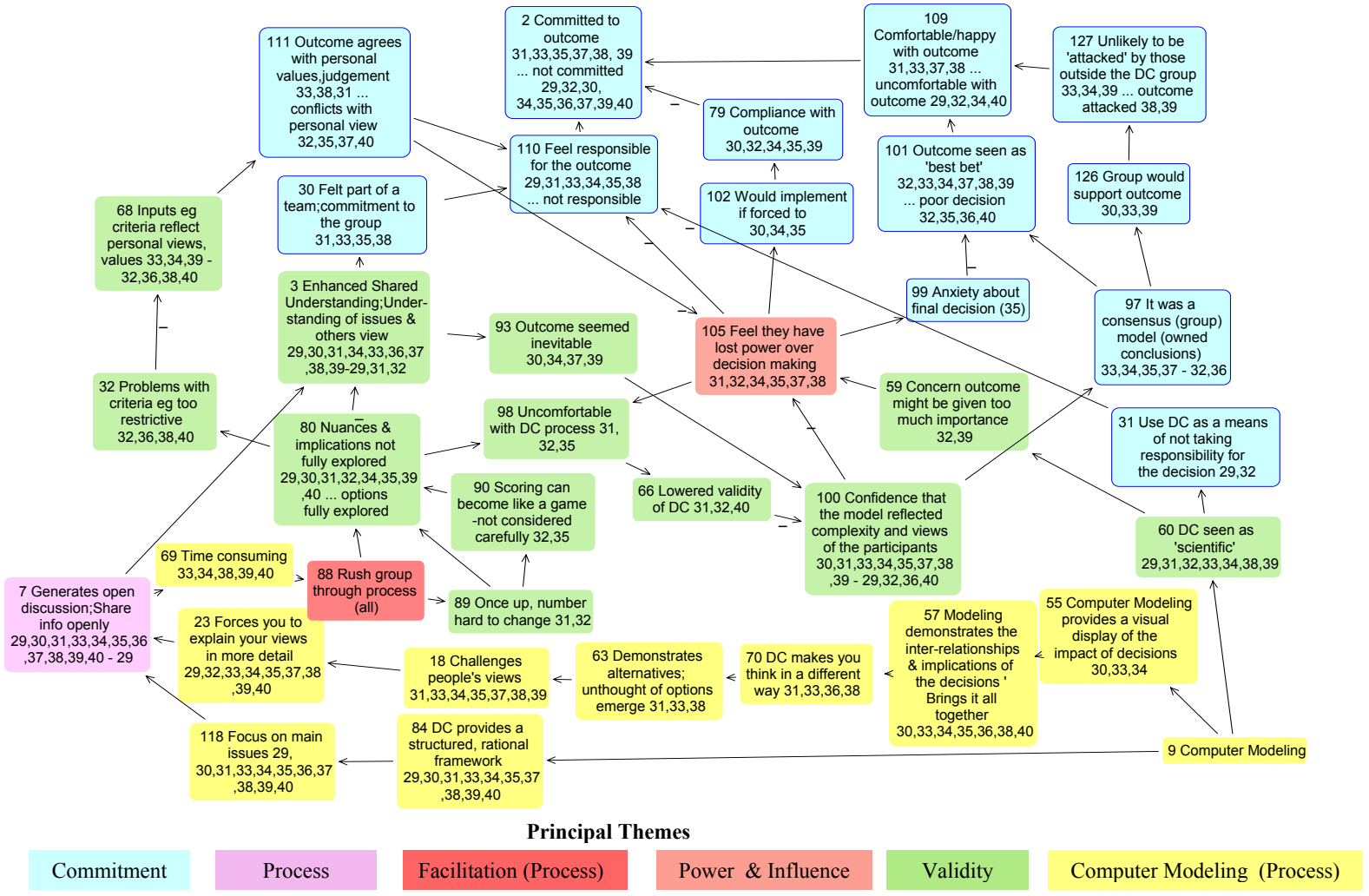
Despite these difficulties, computer modeling could also have potentially positive impacts on commitment. This positive impact was primarily because the difficulties generated further discussion not just about process but also about the issues, thus enhancing the quality of the discussion and the level of shared understanding (#3). Where this took place people felt more confident that the model reflected the complexity and views of the participants (#100) and that they still retained power over the decision-making process (#105). Confidence in the model (#100) and reduced anxiety concerning the final decision (#99) both ultimately lead to the outcome being seen as the "best bet "(#101). This potentially led to people being comfortable or happy with the outcome (#109) thus leading to an increased level of commitment (#2).

It was felt by some participants that if the group as a whole supported the outcome (#126), then this would make it less likely that the group would be attacked by those who did not take part in the decision process (#127), thus making participants a little more comfortable or happier with the decision made (#109).

B) The Link between Computer Modeling (as represented by #9) and Commitment (#2)

The second concept that captured the essence of computer modeling was *#2 Computer Modeling.* Path analysis revealed 177 different routes between these two concepts although once again many of these were only small variations of major pathways. Sixty three of these routes were seen as leading to a possible increase in commitment while the remaining 114 potentially resulted in a decrease in the level of commitment to action. Figure 5-14 illustrates these various routes.

Figure 5-14 Computer Modeling (as represented by #9) and Commitment (#2)



Overall, computer modeling was perceived as generating commitment where:

- Power was retained over the decision-making process (#100, #105) and ownership of the outcome remained with the group (#30, #110).
- The modeling helped the group to remain focused on key issues (#118).
- The modeling was used as a means of demonstrating the implications of decisions (#57, #63, #18), generating questioning and discussion (#7) and causing participants to think more deeply about the issues (#23).
- The process allowed participants to consider unexpected options (#63, #18).

Again, where the above occurred, path analysis revealed links through to the development of a greater degree of shared understanding (#3), confidence that the model reflected the views of participants (#100) and commitment to the decision as part of a team (#97,#30).

In turn, these factors were linked to concepts such as enhanced feelings of personal responsibility (#110) and/or a belief that the outcome was the best bet (#101). The final result of achieving all of this was the potential for a greater degree of commitment (#5).

Again, where these factors didn't occur – especially where there was a perceived loss of power or lowered feelings of responsibility - then commitment to act was reduced for many of the participants.

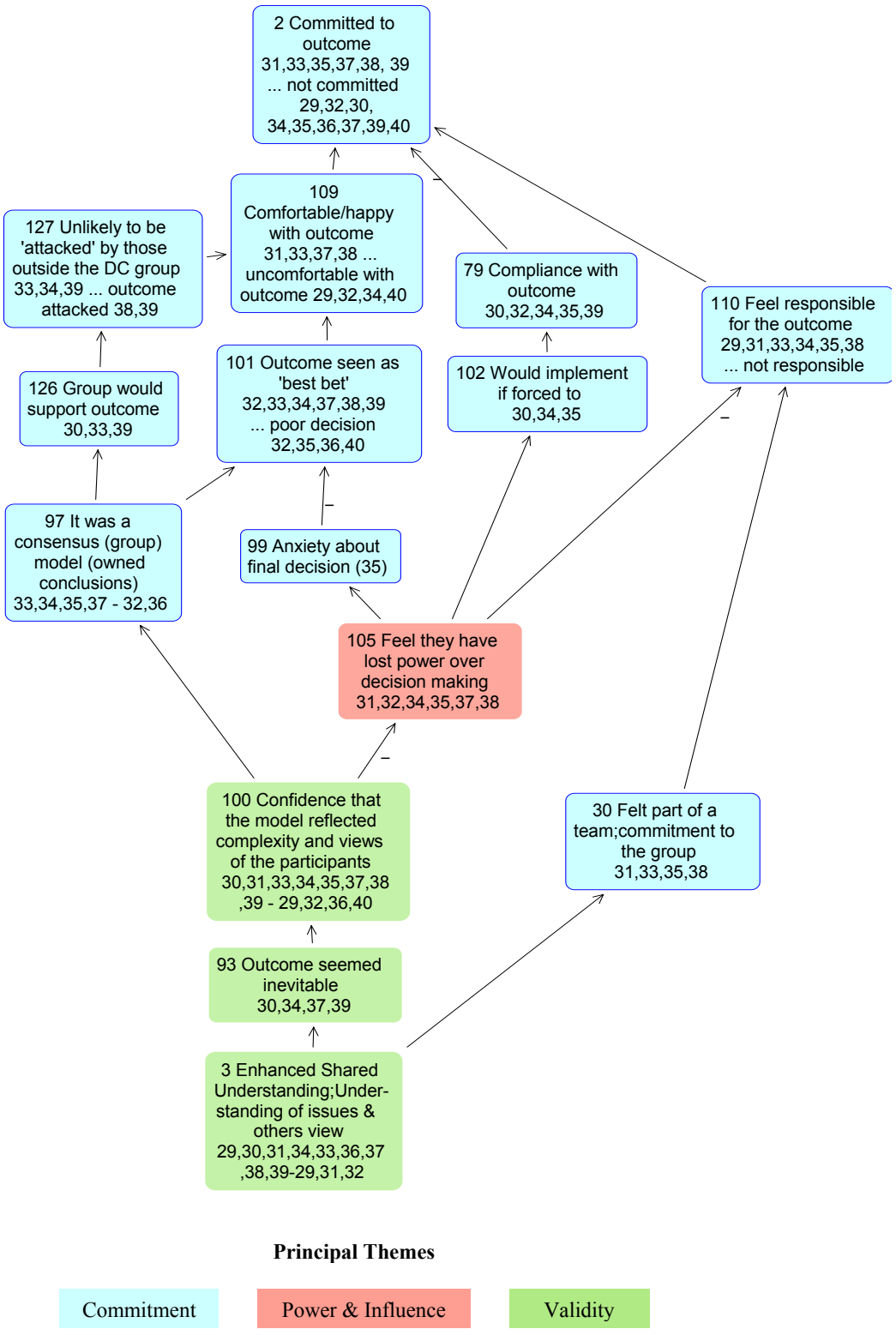
5.4.3 Shared Understanding and Commitment

Research Question 2.3 What is the perceived relationship between Shared Understanding and Commitment to Action?

Findings show that the relationship between shared understanding and commitment to act was an indirect one, mediated by a number of other variables. A Path Analysis examining the connection between Shared Understanding (#3) and Commitment (#2) revealed 6 alternative routes to commitment from the shared understanding node (#7). Figure 5-15 illustrates these various approaches which can also be interpreted as follows: creating a shared understanding amongst Decision Conference participants may lead to a greater commitment to act on the outcome if it

- Ensured participants perceived that they retained power over the decision making process (#105).
- Developed a feeling of shared responsibility and ownership of the process and its outcomes i.e. people felt part of a team and jointly responsible for the outcome (#30, #110, #97). Where participants felt that the group as a whole supported the outcome (#126) they felt more comfortable with the decision as they believed they were then less likely to be personally 'attacked' by those who had not taken part in the Decision Conference (#127).
- Meant participants were less likely to feel that they needed to just comply with the decisions made (#102, #72) – compliance here was negatively related to commitment.
- Increased the likelihood that people felt confident that the model reflected the complexity and views of participants (#103).
- Resulted in people believing the decision they made was the best bet given the circumstances (#101).

Figure 5-15 Shared Understanding (#3) & Commitment (#2)



5. 5 Conclusion

Faced with the need to drastically reduce their budget, Case 1 MBC entered the Decision Conference with some apprehension knowing that whatever decision they made would impact negatively on at least some members of their constituency. This was a highly politicised decision-making environment and the Decision Conference process was quite different to their normal decision making approaches. This in itself impacted on perceptions of fairness and equity amongst both participants and non-participants and also on their view regarding the success or otherwise of the workshop.

Four key themes emerged from the data analysis and were discussed in this chapter i.e. *Commitment*; *Power and Influence, Validity* and *Process* (this last encompassing the computer modeling process and the role of the facilitator). Each of these is evident in the summarising comments to follow.

While the formal report prepared by the ESP for this Decision Conference indicated general agreement with the outcomes, this conclusion is not supported in this study. As evidenced in two of the key themes to emerge from the analysis of this case (i.e. *Commitment* and *Power and Influence*), the majority of participants were not committed and additionally felt that to some extent they had lost power over the decision-making process. Overall, for Councilors their degree of commitment was generally linked to whether the outcome reflected their personal views and their confidence in the process. With the Officers, none of whom declared unequivocal commitment to the outcome, any sort of commitment would be more an act of compliance reflecting their professional responsibility rather than personal commitment to the decision made. The Councilors were seen as dominating the workshop.

In examining participants' comments regarding the notion of commitment to this type of decision, the word *commitment* seemed inappropriate to many of them, implying some sort of positive attachment to something they could only see as a negative. This was also reflected in people's intentions to keep searching for alternatives, even after the decision had been made.

While the degree of confidence in the model and belief regarding whether the decision was the 'best bet' at the time was positively linked to commitment, this

wasn't always enough to counter the other issues that were negatively impacting on their overall commitment levels.

As noted earlier, the two other themes that arose from the analysis were *Validity* and *Process* (this last incorporating the two sub themes of the *Computer Modeling Process* and the *Role of the Facilitator*).

Emerging strongly from this analysis was the importance of the facilitator, not only in helping to people to remain focused, but also in minimizing the problems experienced with the computer modeling. This was important because difficulties distracted people from the task in hand and reinforced any feelings of perceived loss of control over the decision-making process.

The importance of the richness and complexity of the discussion clearly emerged as a central factor in the perceived validity of the workshop. Heavily influenced by both the computer modeling and the facilitation, the generation of open discussion and sharing of information played a central role in enhancing people's understanding of each other and of the issues being addressed. However, more than this the facilitation was seen as ensuring that the complexity of the issue and the various perspectives on it were explored. This discussion was seen as linked to both confidence in the model and perceived quality of the decision and to the extent that this didn't occur as much as it could is a possible explanation for the lower level of commitment evidenced by some of the group. The perceived quality of the debate was clearly an issue in this case, with consequences in terms of understanding, commitment and likelihood of implementation.

With regard to the relationship between this Decision Conference experience and the Decision Conferencing literature, what is evident is that whilst there is some support for the linear relationship depicted in Chapter Two the reality is much more complex. There are many other factors involved, there is not just one path, nor is this path unidirectional. This will be discussed further in Chapter Seven: Discussion and Implications.

6 CHAPTER SIX: QUALITATIVE DATA ANALYSIS - CASE 2 DC

6. 1 Introduction

Mirroring the approach adopted in Chapter Five, this chapter presents the findings drawn from the qualitative data for Case 2 DC and once again begins by presenting the background to the Decision Conference in question, including a review of the participants, a description of preparatory work, the objectives and subsequent model building and the associated decision outcomes.

Following on from this overview of the background to Case 2 DC is a detailed discussion of the analysis and associated findings of the in-depth interviews conducted with participants, again including the identification of key concepts and principal themes to emerge from the data.

The findings directly associated with the research questions are then presented and the chapter closes with a summary of the Case 2 DC Decision Conferencing experience.

6. 2 Background

Case 2 is a large District Council (DC) encompassing 122 Parishes with a population of 100,000 people. The Council is made up of elected Councilors (sometimes referred to as Members), who make the policies which determine how the Council is run, and non-elected Officers - professional people like planners, accountants, leisure development specialists and environmental health Officers - who put those decisions into effect.

At the time of the data collection the Council was a complex organisation made up of four distinct party political groups: Labor, Liberal, Independents and Conservatives. An alliance between the Labor group and the Liberals provided these two parties with the balance of power.

There were 46 Councilors with approximately £1.4M to allocate toward a capital works program. The Council's usual route for resource allocation such as this was based on a structured committee process, where various committees had been set up to make decisions concerning specified service areas. Examples included the Health and Works Committee, the Tourism and Leisure Committee and the Housing

Committee. To counteract the possibility of having the various committees focus too much on their own areas, Council had also established a Policy and Resources Committee. The purpose of the Policy and Resources Committee was to draw together the threads of the various service committees and attempt to create a policy overview that matched the authority's corporate objectives. Also woven into this committee approach was a complex amalgamation of political party consultations, committee meetings, negotiations between members, input from Officers and full Council sessions. Officers had a significant role to play as they prepared the budgets in consultation with the elected members although they had no part in the final decision making.

Rather than rely once again on this usually lengthy process of committee meetings and consultations to try and achieve a workable program of expenditure, Case 2 District Council decided to commission a Decision Conference. The Decision Conference was to be run by an external service provider (ESP) and it was hoped that this would facilitate an objective prioritisation of expenditure. Comments from participants regarding this decision included the following:

> I wanted the process to assist us…knowing that we had demands to spend some 5 million pounds when the sum of money we had to spend was 1.4 million, now how do you priorities in those circumstances..? N049 P66 Officer

Some of the participants had previous experience of the Decision Conferencing process and believed that working in this way would draw together the threads of the various service committees in a more coherent manner, enabling them to match the decisions to the authority's corporate objectives.

The Decision Conference was run over two days. Participants at times referred to the Decision Conference as the "Workshop". These terms will therefore be used synonymously.

6.2.1 Participants

Interviews were conducted with 12 of the 14 participants involved in the Decision Conference. Two participants were not available for interview. Five of those interviewed were Members of the Council and the other seven were Chief Officers (Council employees). Participants in the Decision Conference included the Council's

management team i.e. the Chief Officers together with the Chairs of all the service committees and the Leaders of the two largest political groups, Labor and Liberal.

As indicated earlier, at the time of the Decision Conference Labor and Liberal were operating in tandem to manage the administration (a hung Council). As a consequence, while both of the major political groups were represented in the Decision Conference, there were no representatives included from either the Independents or the Conservatives.

The Decision Conference facilitation team consisted of a facilitator and an analyst from an external service provider (ESP). The decision analysis software, EQUITY™ was used to capture and manage the data generated during the Decision Conference. For a more detailed discussion of the use of EQUITY™ in Decision Conferencing, refer to Chapter Two: Literature Review.

6.2.2 Decision Conference Prework

As part of the preparation, the Officers put together the various bids (sometimes referred to as options) including cost estimates. The Officers also established the criteria that the Decision Conference participants were to consider during the Decision Conference. The criteria put forward by the Officers were based on criteria used in a previous Decision Conference.

The suggested bids and criteria were distributed to the various Committees for review prior to the Decision Conference. Each Committee put forward an agreed list of bids for consideration. Part of the subsequent criticism by participants was that these lists should have been reviewed and refined further prior to entering the Decision Conference. The criteria put forward by the Officers were based on criteria used in a previous Decision Conference.

It is important to note that quite detailed discussion papers regarding each of the committees and associated bids were issued to those participating in the Decision Conference. However, as these papers were not available to the researcher, it wasn't always possible to deduce the exact nature of each bid.

6.2.3 Decision Conference Objectives

At the start of the Decision Conference the following objectives were noted:

1. To evaluate bids (options) for capital resources against Case 1 District Council's strategic criteria
2. To agree a prioritised list of bids for recommendation to full Council

(ESP2 1997: 5)

6.2.4 Building the Model

On the first day of the Decision Conference, representatives from the Committees put forward their various bids and made a case for their inclusion. Although the criteria suggested by the Officers had been developed for a previous Decision Conference, participants adopted them after a brief review at the start of the workshop. Following is the agreed set of criteria accepted into the model.

Table 6-1 Criterion

Criteria	Definition	Impacts on
Social	The proposal contributes to the social well being of residents, or a group of residents in (area)	• The health and well being of residents, whether it be safeguarded or improved • Equal access to services • Well being of disadvantaged social groups • The social life of residents • The 'feel good' factor
Economy	The proposal contributes to the local economy.	• Local employment opportunities with opportunities of suitable quality • Youth employment or over 50's employment • Existing local industries/employment • Inward investment to (area) • Giving (area) a competitive edge
Environment	The proposal safeguards or improves the (area) environment.	• The sustainable development of (area) • The (area) environment
Stewardship	The proposal contributes towards the stewardship of a (area) District Council asset or resource.	• Maintenance of development of (area) owned infrastructure or community assets (having regard for the cost of not maintaining) • The provision for more accountable, efficient or effective governance by (area) District Council • The employment, health, safety or welfare of staff

(ESP2 1997: 9)

The group proceeded to build a model on the white boards, which encompassed their agreed bids and benefit criteria (ESP2 1997: 11). As shown in Table 6-2 EQUITY™ Model – Order of Best Buy, the columns numbered 7, 8 and 9, indicate that the model had three separate capital cost components, one for each of the two years following the Decision Conference plus a third column for the balance of the total capital required for the year 2000/01 and onward. Column 10 contains the total income expected over those three years. During the course of the workshop some bids were excluded, including those that were classified as either unavoidable where it was considered that there was no choice other than to implement that particular bid or as requiring separate alternative funding arrangements.

A number of activity areas were also defined based on the various service committees. These are identified in Table 6-2 under the heading 'AREA' and include Health and Works, Tourism & Leisure, Housing and Policy & Resources. The bids put forward by these committees were reviewed and a number of possible bids were agreed for each of these areas and incorporated into the model. As discussed earlier, prior to the Decision Conference participants had been provided with detailed discussion papers regarding the bids.

According to the ESP's final report regarding the Decision Conference, the following process was used to build the model. All of the bids for each area were scored against each of the criteria. This resulted in a preference scale for each criterion. When all of the areas had been scored against all criteria, two types of weight were assigned. The first set of weights was used to indicate the relative length of the scales within a single criterion (W*ithin Criteria Weights*) and the 'Box Method' was used to establish these weights (ESP2 1997: 14).

Next, the group's perception of the relative significance of the criteria was evaluated by eliciting *Across Criteria Weights* from the group. Participants indicated how they would share 100 points between the four criteria determined the Across Criteria Weights. This response was then averaged to obtain the *Across Criteria Weights* to be used in the Decision Conference. [2]

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[2] While some of the literature suggests that the use of swing weights is considered theoretically more sound than the simple importance rating scheme which appears to have been used here [Quaddus, 1992, 157], the method described above would still be acceptable depending on the way the question was asked i.e. if it focused not just on importance but also looking at the importance of the difference in scales for each. Swing weighting considers the range and importance of the change from the best alternative to the worst alternative of one attribute over a similar change in another attribute.

Using EQUITY™, the total costs and total benefits of all packages i.e. the combinations of bids, were then calculated and a graphical representation presented to the group. The group could observe which packages produced the greatest benefit for a given cost level, indicated as points on the upper edge of an 'envelope' graph as described in Chapter Two's discussion of the modeling process. Having reached this stage, the group was in a position to begin exploring the model in more detail.

6.2.5 Explanation of the Model

The group began by examining how the model had sorted the bids from each committee to see which bids emerged as the first to invest in, which the second and so on. Having agreed in general that these lists were acceptable, participants went on to examine the 'Order of Best Buy' presented by the model for ALL bids, i.e. from across all the committees or areas. Table 6-2 (over) presents the 'Order of Buy' for the capital bids in 'value for money' sequence (ESP2 1997: 1). Here we can see that the top 5 bids were: work on the Cromer Pier & Foreshore (Tourism & Leisure), construction of the North Walsham Pool, assuming 85% of the project gained external funding (Tourism & Leisure), purchase of North Walsham land (Policy & Resources), development of the Catfield Industrial Units, assuming 50% grant funding (Policy and Resources) and conservation work on the North Walsham Town Centre (Development).

Table 6-2 EQUITY™ Model – Order of Best Buy

	AREA	BID					Cum.Costs (Costs in '000s of Pounds)					
			1	2	3	4	5	6	7	8	9	10
			Net Costs	Cum Costs	Benefit	Cum Benefit	98/99	99/00	00/01	Income	Rev 98/9	Rev Full
#0	1 P&R	1 Unavoidable	318	318	1	1	222	96	0	0	3.0	-67.0
#1	12 Tourism & Leisure	2 TL9, Cromer Pier & foreshore	136	454	148	223	1187	206	0	939	3.0	-67.0
#2	13 TL8A lottery 85%	2 a.N.Walsham Pool	490	944	170	393	1237	526	3365	4184	3.0	25.0
#3	1 P&R	2 PR7, N.Walsham Land	500	1444	128	520	1237	1026	3365	4184	3.0	25.0
#4	2 PR6a 50%	2 a Catfield Ind Units	160	1604	31	552	1547	1026	3365	4334	3.0	4.0
#5	6 DC1a All grants	2 a N.Walsham. Town Cntr	150	1754	26	578	1592	1216	3630	4684	3.0	4.0
#6	12 Tourism & Leisure	3 TL2, Sadlers Hill plntn	10	1764	1	579	1602	1216	3630	4684	3.0	4.0
#7	1 P&R	3 PR1, MAFIS	195	1959	26	605	1797	1216	3630	4684	3.0	7.8
#8	12 Tourism & Leisure	4 TL6, Splash Repairs	65	2024	7	612	1862	1216	3630	4684	3.0	7.8
#9	16 Health & Works	2 HW7, PC Strategy 1	120	2144	12	624	1982	1216	3630	4684	3.0	7.8
#10	15 Housing	2 HS1, elim B&B	100	2244	10	633	2252	1216	3630	4854	13.0	17.8
#11	12 Tourism & Leisure	5 TL1, Land Purchase	20	2264	2	635	2262	1226	3630	4854	13.0	17.8
#12	16 Health & Works	3 HW7, PC Strategy 2	80	2344	7	642	2262	1306	3630	4854	13.0	17.8
#13	9 DC2a	2 a Walsingham floor	30	2374	2	644	2277	1321	3630	4854	13.0	17.8
#14	16 Health & Works	4 HW6, resurf M&NW cp	32	2406	2	646	2309	1321	3630	4854	12.0	16.6
#15	16 Health & Works	5 HW7, PC Strategy 3	60	2466	4	650	2309	1321	3690	4854	12.0	16.6
#16	4 PR11a	2 a Thwaite Common	25	2491	1	651	2334	1321	3690	4854	12.0	16.6
#17	1 P&R	4 PR3, in hse electrcl sys	25	2516	1	652	2359	1321	3690	4854	12.0	16.6
#18	16 Health & Works	6 HW2 Beach Car Park	185	2701	7	659	2579	1321	3690	4889	12.0	10.6
#19	16 Health & Works	7 HW4, Runton Rd Carpark	53	2745	2	661	2632	1321	3690	4889	5.5	4.1
#20	12 Tourism & Leisure	6 TL3, Sherington TIC	45	2799	1	663	2677	1321	3690	4889	5.5	3.6
#21	1 P&R	5 PR12, Fakenham Echg	45	2814	0	663	2692	1321	3690	4889	6.0	4.1
#22	1 P&R	5 PR17, repl CCs veh& IT	54	2868	1	664	2746	1321	3690	4889	11.5	9.6
#23	16 Health & Works	8 HW1, EnvServ IT sys	32	2900	1	664	2778	1321	3690	4889	14.0	12.7
#24	12 Tourism & Leisure	7 TL4, Cromer S/C social	100	3000	1	666	2778	1421	3690	4889	14.0	11.7
#25	12 Tourism & Leisure	8 TL7, Boradland Sprt&L	100	3100	1	667	2778	1521	3690	4889	14.0	41.7
#26	1 P&R	7 Pr15, air conditioning	37	3137	0	667	2815	1521	3690	4889	15.5	43.2
#27	16 Health & Works	9 HW9, Clink Rd car park	45	3182	0	667	2860	1521	3690	4889	12.5	39.7
#28	11 Development (DC3)	2 DC3, N traffic mngmt	20	3202	0	667	2870	1531	3690	4889	12.5	39.7
#29	12 Tourism & Leisure	9 TL5, Cromer all weather	10	3212	0	667	2880	1531	3690	4889	12.5	39.7
#30	16 Health & Works	10 HW5, repl.carpk tkt m/c	120	3332	0	667	2920	1571	3730	4889	-2.5	14.7

After reviewing this Order of Buy, the group then explored the potential impact of five alternative scenarios. Table 6-3 summarises the impact of these alternate situations.

Table 6-3 Exploring Alternative Scenarios

Scenario **What would be the impact if…**	**Outcome (i.e. in terms of change to list in** Table 6-2**)**
..Tourism & Leisure 8 North Walsham Pool bid only received grants up to 65% of the cost (rather than the assumed 85%)?	North Walsham Pool becomes less attractive. The group indicated that this would imply that the Pool was only viable in a £1.4M programme if the 85% grant was available.
..PR6 Catfield Industrial Units bid received a grant only contributing to 40% of the cost?	PR6 Catfield Industrial Units would still be successful in a £1.4M capital programme.
..the only resource for DC1 North Walsham Town Centre Conservation Area bid was Heritage Lottery and English Heritage Funding?	North Walsham Town Centre Conservation Area came in after PR1 MAFIS. The implication here was that the DC1 bid required (area) County Council political commitment.
…DC1 North Walsham Town Centre Conservation Area bid received no grants at all?	North Walsham Town Centre Conservation Area bid would not go ahead if no partners were available.
…a combination of the following occurred? • the County and other bodies contributed up to £15K to PR11 Thwaite Common Management bid • the Parish contributed £6K to DC2 Walsingham Floorscapes project • there was only Heritage Lottery and English Heritage Funding available for DC1 North Walsham Town Centre Conservation Area bid	PR11's position in the Order of Buy was improved (enters the top ten) and that DC2 becomes marginally more attractive.

(ESP2 1997: 17-19)

These potential outcomes were noted, however the final list remained unchanged from that contained in Table 6-2.

6.2.6 Decision Conference Outcome

Emerging from the Decision Conference was a prioritised list of bids for recommendation to the full Council. However, this outcome was not expected to be the final decision because the "Order of Best Buy" list was to be distributed to the various committees for review and then move on to the full Council for final consideration. The Order of Best Buy list generated from the Decision Conference was thus to be a recommendation only.

However, from the interviews it appears that while the prioritised list of bids went back to each committee after the Decision Conference, Committees were only empowered to review and make minor amendments only to bids *from their own areas*. Consequently the prioritised list that emerged from the Decision Conference was endorsed unchanged by the Full Council in February of 1998. The implications of this will be discussed shortly as part of the review of participants' perceptions of the Decision Conference.

The next section presents participants' perceptions of the Decision Conference process, an analysis of key themes arising from the individual interviews and a consideration of what the findings reveal in terms of the research questions.

6. 3 Analysis of the Cognitive Maps – Case 2 Participants

Having reviewed the background to the Case 2 DC Decision Conference, this section focuses on the points that emerged during the in-depth interviews conducted with 12 of the 14 Decision Conference participants. Following the analytical approach outlined in Chapter Three, the section begins by presenting a composite map of the group's views of their Decision Conference experience, followed by a review of the key concepts and principal themes identified in the data analysis.

6.3.1 The Composite Map - The Big Picture

Piecing together the Case 2 DC Decision Conference experience involved taking a number of steps. Once the interviews with participants were transcribed, each interview was mapped individually using the cognitive mapping and analysis software, Decision Explorer™ and the relevant transcript passages coded and stored in NVivo™. A sample of an individual interview transcript and associated map is presented in Appendix D.

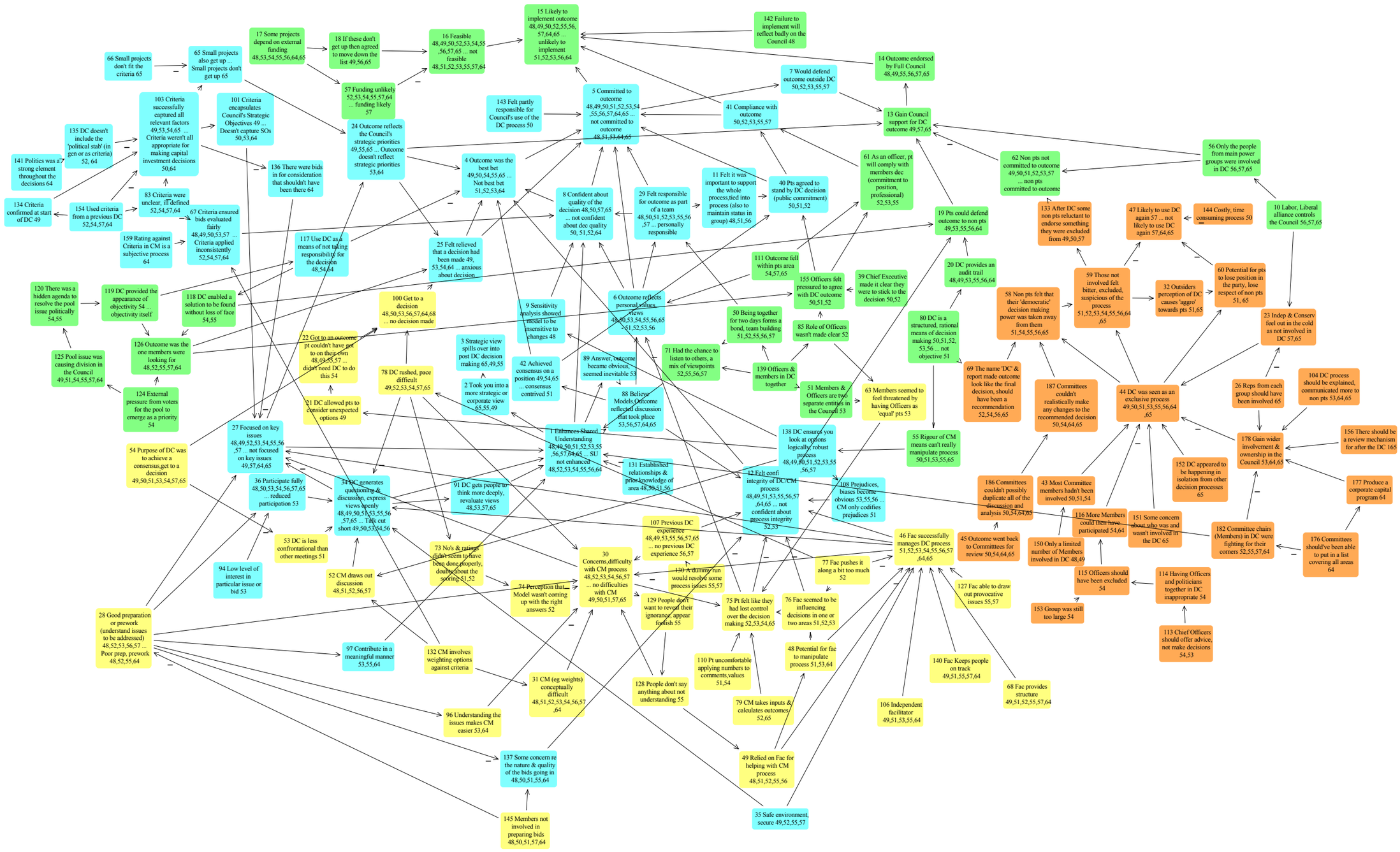
All of the individual maps were then carefully combined to form a composite picture of the group's view of the Decision Conference. For a detailed discussion of this process and the display conventions utilized in this study refer to Chapter Three. The overview map that emerged (see Figure 6-1 over) thus presents an aggregation of many different views, including conflicting perspectives, slightly different standpoints and issues of common significance to the group.

As explained in Chapter Three, the number at the start of the concept description acts only as a label while the numbers following the concept description represent the identification numbers of those interviews where a direct statement supported the concept. With the data presented in this way, it is possible to quickly assess the measure of support for or against a concept. Different colours and fonts are used to indicate key themes. For example, the four colours on the map in Figure 6-1 indicate the four major themes to emerge from the analysis, i.e.:

- Blue - Commitment
- Green - Likelihood of Implementation
- Orange - Exclusivity
- Fawn - Loss of Control over Decision Making

Each of these will be discussed in detail in Section 6.3.5 Principal Themes. Additional colours or fonts assigned during the analysis are indicated by an accompanying legend in the relevant section.

Figure 6-1 Case 2 Composite Map



6.3.2 Measures of Coherence

Having developed the map the next step was to assess its overall consistency. For further discussion of this notion of consistency and logic within a map, please refer to Chapter Three: Research Method and Design. The composite map presented in Figure 6-1 provides evidence of a high degree of coherence, as measured by Jenkins & Johnson (1997). The map contains a link to concept ratio of 1.55 (210 links to 135 concepts), a cluster index of 0.97 (4 clusters in a map of 135 constructs) and an extensive degree of elaboration for the majority of the chains of argument. These relatively high scores also reflect those obtained from the individual interviews. Following Jenkins & Johnson (1997), it may therefore be concluded that the participants in the Case 2 DC Decision Conference evidenced a high level of cognitive complexity in their discussion of the workshop process, a sound understanding of the linkages between concepts and thus a more coherent view of the issues.

6.3.3 The Key Concepts

The next step in the analysis was to identify the potential goals, key issues and their links by the identification of head concepts, central analysis, domain analysis and path analysis. See Chapter Three for further discussion of these approaches.

6.3.3.1 Identifying Goals

The Head concepts reveal participants' views about where the process was leading. In the composite model, three concepts emerged as goals for the Case 2 DC Decision Conference participants, i.e.:

- The strategic view spills over into post Decision Conference decision making (#3).
- Likelihood of implementation (#15).
- Likelihood of using the Decision Conference process again (#47).

The first Head concept indicated above was that the strategic view encouraged by the Decision Conference process was seen as 'spilling over' into subsequent decision making (concept #3). Directly raised by three participants, this perceived result of

the process surfaces an important issue for Decision Conference practitioners i.e. the longer-term benefits to participants of the Decision Conference process.

The process was seen as (a) encouraging the development of a strategic view, as illustrated in both the quotations below, and (b) as having an effect on subsequent decision making, as illustrated in the final paragraph of the first quotation.

> (The Decision Conference) took you away from your parochial view into a corporate view and after all that is what we should be about…This Council is run by various Committees and what I do now is I take a corporate approach to things. N065 P82 & 84 Councilor

> What decision conferencing does is it forces you to recognise that you are attempting to determine your level of spend based on your corporate priorities and … if that's going to achieve the best fit for the authority as a whole well then that's acceptable. N064 P49 Officer

The second Head concept concerned the likelihood of implementation of the outcome (concept #15). Nine of the participants felt that it was likely that the outcomes would be implemented as evidenced in the following quote:

> There is willingness from the group that participated – and, in fact, I think generally it's now been accepted by the full Council as well. N065 P166 Councilor

However this degree of confidence was not reflected in the whole group. At least seven of the twelve participants interviewed expressed reservations based on the perceived feasibility of implementing all of the options in the Order of Best Buy list. This reservation was primarily based on the fact that some of the budget items were evaluated on the assumption they would receive significant levels of funding from external bodies, up to 85% of the project cost in one case. A typical comment follows:

> Well the one item that came very high the very expensive one, I don't think is feasible. I don't think it will happen partly because it depends on funding from elsewhere as well. N053 P103 Officer

This will be discussed in more detail in relation to one of the key themes to emerge, "Likelihood of Implementation".

The likelihood of using the Decision Conference process again was the third Head concept in the composite map (concept #14). This concept emerged spontaneously during interviews with three of the participants, who all expressed doubts about a repeat use. These doubts were primarily based on the reactions they had received

from non-participants. This topic is covered further in relation to another theme which surfaced in this analysis, namely the perceived exclusivity of the Decision Conference process and the impact on the balance of power within the Council.

6.3.3.2 Locating Key Issues

Having determined the Head or goal concepts within the model, a Domain and a Central analysis were conducted to elicit both those concepts which were "busiest" i.e. had the most links and those that were most central in terms of the degree of connection with the wider model. As discussed in Chapter Three, concepts elicited through these analyses are most likely to be strong indicators of participants' key issues. The top 15 concepts to emerge from the Domain Analysis are presented in Table 4 and the top 15 from the Central Analysis are presented in Table 5. A comparison of these tables revealed 11 concepts in common. An asterisk identifies these common elements.

Table 6-4 Domain Analysis: Top 15 Concepts

	Top 15 concepts in descending order.	# Links (in & out)
1*	46 Facilitator (Fac) successfully manages DC process 51,52,53,54,55,56,57,64,65	12
2*	1 Enhances Shared Understanding 48,49,50,51,52,53,55,56,57,64,65 ... SU not enhanced 48,52,53,54,55,56,64	11
3*	30 Concerns, difficulty with CM process 48,52,53,54,56,57 ... no difficulties with CM 49,50,51,57,65	11
4*	5 Committed to outcome 48,49,50,51,52,53,54,55,56,57,64,65 ... not committed to outcome 48,51,64,65	10
5*	12 Felt confident re integrity of DC/CM process 48,49,51,53,55,56,57,64,65 ... not confident about process integrity 52,53	9
6*	34 DC generates questioning & discussion, express views openly 48,49,50,51,53,55,56,57,65 ... Talk cut short 49,50,53,54,56	9
7	44 DC was seen as an exclusive process 49,50,51,53,55,56,64,65	9
8*	27 Focused on key issues 48,49,52,53,54,55,56,57 ... not focused on key issues 49,57,64,65	8
9*	75 Pt felt like they had lost control over the decision making 52,53,54,65	7
10*	4 Outcome was the best bet 49,50,54,55,65 ... Not best bet 51,52,53,64	7
11	8 Confident about quality of the decision 48,50,57,65 ... not confident about decision quality 50, 51,52,64	7
12*	103 Criteria successfully captured all relevant factors 49,53,54,65 ... Criteria weren't all appropriate for making capital investment decisions	7

	Top 15 concepts in descending order.	# Links (in & out)
13	28 Good preparation or prework (understand issues to be addressed) 48,52,53,56,57 ... Poor prep, prework 48,52,55,64	7
14*	6 Outcome reflects personal values, views 48,50,53,54,55,56,65 - 51,52,53,56	6
15a	13 Gain Council support for DC outcome 49,57,65	6
15b	178 Gain wider involvement & ownership in the Council 53,64,65	6

As discussed, Table 6-5 (following) presents the top 15 concepts to emerge from the Central Analysis. Central Analysis looks beyond the immediate links and examines the relationship of the concept to the rest of the map (Brightman 1998: 18). Thus, the concepts listed here are those that have the highest degree of influence throughout the model.

Table 6-5 Central Analysis: Top 15 Concepts

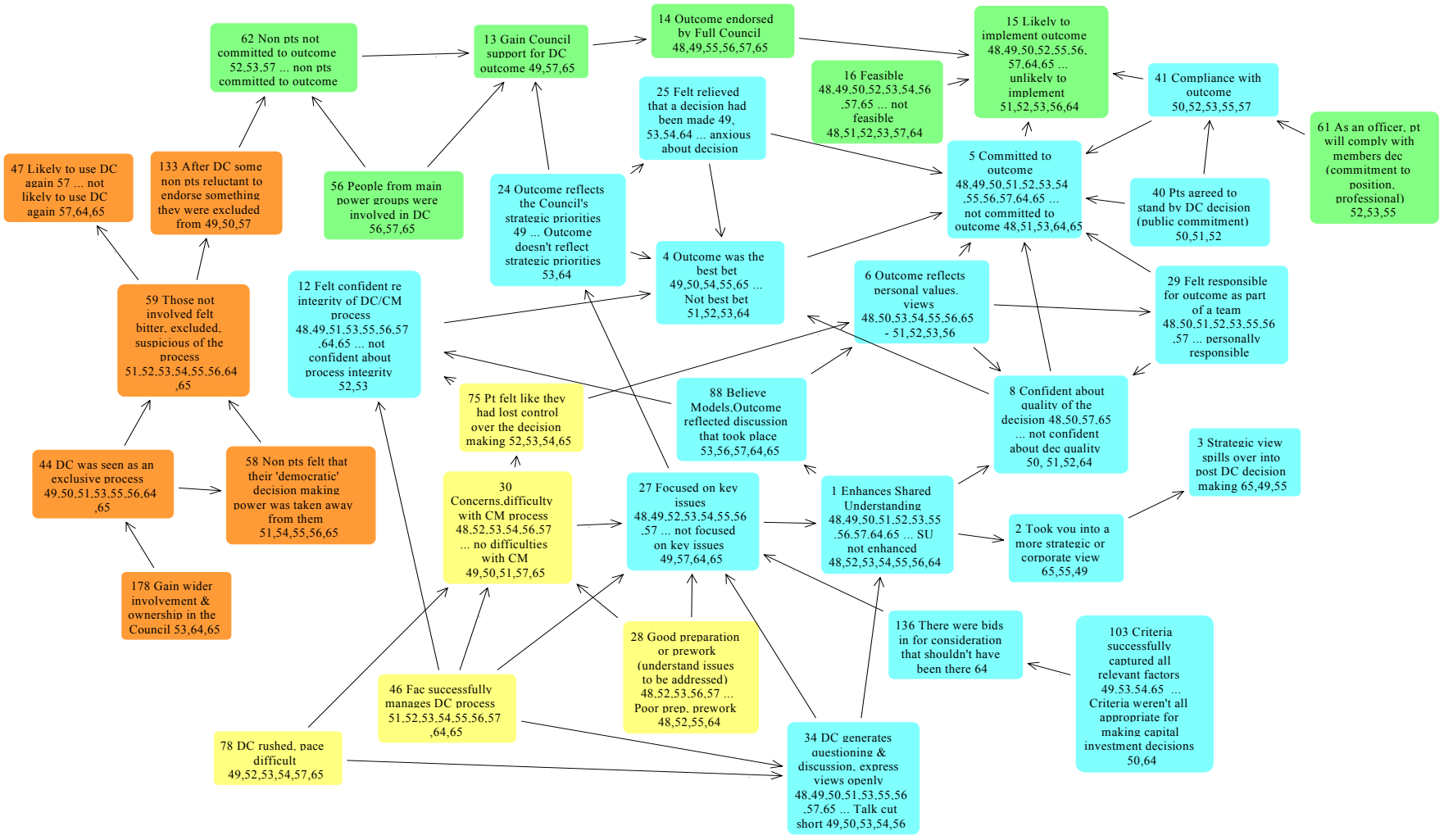
	Top 15 concepts in descending order.	Cent Score
1*	1 Enhances Shared Understanding 48,49,50,51,52,53,55,56,57,64,65 ... SU not enhanced 48,52,53,54,55,56,64	38 from 81 concepts.
2*	27 Focused on key issues 48,49,52,53,54,55,56,57 ... not focused on key issues 49,57,64,65	37 from 79 concepts.
3*	12 Felt confident re integrity of DC/CM process 48,49,51,53,55,56,57,64,65 ... not confident about process integrity 52,53	36 from 77 concepts.
4*	4 Outcome was the best bet 49,50,54,55,65 ... Not best bet 51,52,53,64	34 from 79 concepts.
5*	8 Confident about quality of the decision 48,50,57,65 ... not confident about decision quality 50, 51,52,64	33 from 73 concepts.
6*	46 Fac successfully manages DC process 51,52,53,54,55,56,57,64,65	32 from 63 concepts.
7*	34 DC generates questioning & discussion, express views openly 48,49,50,51,53,55,56,57,65 ... Talk cut short 49,50,53,54,56	32 from 67 concepts.
8*	30 Concerns, difficulty with CM process 48,52,53,54,56,57 ... no difficulties with CM 49,50,51,57,65	32 from 64 concepts.
9	24 Outcome reflects the Council's strategic priorities 49 ... Outcome doesn't reflect strategic priorities 53,64	32 from 78 concepts.
10*	5 Committed to outcome 48,49,50,51,52,53,54,55,56,57,64,65 ... not committed to outcome 48,51,64,65	32 from 67 concepts.
11*	75 Pt felt like they had lost control over the decision making 52,53,54,65	30 from 68 concepts.
12	88 Believe Models, Outcome reflected discussion that took place 53,56,57,64,65	29 from 68 concepts.
13*	6 Outcome reflects personal values, views 48,50,53,54,55,56,65 - 51,52,53,56	28 from 65 concepts.
14	25 Felt relieved that a decision had been made 49, 53,54,64 ... anxious about decision	26 from 60 concepts.
15	78 DC rushed, pace difficult 49,52,53,54,57,65	25 from 57 concepts.

Examination of the Head concepts and those resulting from the Domain & Central analyses revealed some of the key concepts emerging from this large model. These concepts were then added to a new set called *Key Issues.*

This new set was then reviewed once more and additional concepts that were seen as providing critical links or clues to the central themes were also included as part of *Key Issues.*

Figure 6-2 Key Issues presents the results of this grouping and captures the essence of the Case 2 DC Decision Conference participants' experience. It should be noted that this is a summary map and that there are a number of intervening or contributing concepts that do not appear here. The next section outlines the story that emerged from this summary picture, drills further down into the data revealing the principal themes and directly addresses the research questions in relation to this case.

Figure 6-2 Key Issues



Principal Themes: Commitment | Likelihood of Implementation | Exclusivity | Loss of Control over Decision Making

6.3.4 The Case 2 DC Story – An Overview

The summary map in Figure 6-2 presents an image of 12 people who emerged from the Decision Conference feeling relatively committed to act on the list of items they had produced. A closer look at the map shows that all 12 interviewees indicated that they were committed to the outcome (#5), although as 5 participants have also been marked as not committed (#5 opposite pole) there were evidently some mixed feelings. Some of the participants also had reservations about the feasibility of the process (#16) and how this might impact on the Council's ability to implement all of the bids exactly as they stood (#15). Despite this, all 12 participants indicated at least some degree of commitment to the outcome (#5).

The facilitator was seen as playing a key role (#46), helping to keep people focused on the main points (#27) and minimizing the problems experienced with the computer modeling (#30). This was important because difficulties in this area distracted people from the decisions to be made (#27) and had the potential to make people feel they had somehow lost control of the decision making (#75).

Notwithstanding some difficulties with the computer modeling (#30), nine of the twelve interviewed saw the process as one that had integrity and thus inspired confidence for people who participated (#12). Unfortunately, this was not the case for those not participating in the Decision Conference. Non participants were perceived by eight of those interviewed as feeling bitter, excluded (#44, #59) and concerned that they had lost control over the decision-making process (#58). This was seen as potentially decreasing the likelihood of implementation (#15), however the fact that people from the main power groups were part of the Decision Conference (#56) seemed to mitigate this effect. Nevertheless, the long-term result for at least three of those interviewed was that the Council was unlikely to use the Decision Conference process again (#47) because of its perceived exclusivity (#44).

The opportunity to discuss issues openly and question different view-points (#34) played a central role in enhancing people's understanding of each other and the issues being addressed (#1). Developing this understanding was seen as enhancing the quality of the decision (#8), convincing no less than five participants that the outcome was their best bet (#4) and once again strengthening participants' commitment (#5). For four people, this was also tied up with a sense of relief that a

decision had been made in response to the difficult problem faced by the Council (#25).

Eight of the twelve participants felt that they were responsible for the outcome as part of a team (#29). Five expressly stated that the outcome reflected the discussion that took place (#88) and at least seven individuals felt that it echoed their personal views (#6), thus further reinforcing the sense of shared responsibility (#29) and commitment (#5). For Chief Officers an additional factor regarding responsibility and commitment was their perception that it was part of an officer's job to see that the decision was implemented (#61,#40,#41).

The importance of good preparation (#28) was commented on by more than half of the participants, impacting as it did on process factors (e.g. coping with the cognitive load of the computer modeling process) and content factors (e.g. providing the opportunity to focus on the key issues). Getting the criteria right was another fundamental concern for the group, with mixed views on whether this was accomplished. Four participants clearly felt that that this had been accomplished, while two were adamant it had not (#103).

A small group (3 participants) saw the Decision Conference as having a longer-term impact on their decision making by encouraging the adoption of a more strategic view (#2, #3).

6.3.5 Principal Themes

The previous section presented an overview of the Case 2 DC Decision Conference experience. What follows is a fleshing out of this basic structure.

As indicated by the colour coding on the composite map in Figure 6-1, four broad themes emerged from a cluster analysis of the Case 2 DC Decision Conference experience. They were:

- Commitment — Issues impacting on commitment such as the ownership of the outcome (incorporating the notion of compliance), discussion quality, generation of new insights and options, understanding of the issues and perceived decision quality and the importance of the criteria in the process.

➢ Likelihood of Implementation	Concepts related to the perceived likelihood of implementation of the outcome. Feasibility; pressure to comply with outcome – external and internal; likelihood of gaining support from full Council; defensible process i.e. structured, rational; organisational and political influences.
➢ Exclusivity	Issues surrounding power relationships within the Council and the impact of the perceived exclusivity of the Decision Conference process
➢ Loss of Control over Decision Making	Perceptions regarding the potential for loss of control over the decision making process. Issues revolved around difficulties with the computer modeling process and the impact of the facilitator; pivotal role of the facilitator in managing the Decision Conference process; facilitator's ability to enhance discussion.

It was also possible to break three of these themes down further into sub-themes. Table 6-6 Principal Themes presents the four broad themes, the sub-themes within each of these and the concepts within each set. Following this table is a discussion of each of these principal themes.

Table 6-6 Principal Themes

Commitment	
Sub-theme	**Components**
General	**General** ➢ 5 Committed to outcome 48,49,50,51,52,53,54,55,56,57,64,65 ... not committed to outcome 48,51,53,64,65 1 concept
Decision Quality	**Quality** ➢ 2 Took you into a more strategic or corporate view 65 ➢ 3 Strategic view spills over into post Decision Conference (Decision Conference) decision making 65 ➢ 4 Outcome was the best bet 49,50,54,55,65 ... Not best bet 51,52,53,64 ➢ 8 Confident about quality of the decision 48,50,57,65 ... not confident about decision quality 50, 51,52,64 ➢ 9 Sensitivity analysis showed model to be insensitive to changes 48 ➢ 12 Felt confident re integrity of DC/CM process 48,49,51,53,55,56,57,64,65 ... not confident about process integrity 52,53 ➢ 24 Outcome reflects the Council's strategic priorities 49,55,65 ... Outcome doesn't reflect strategic priorities 53,64 ➢ 65 Small projects also get up ... Small projects don't get up 65 ➢ 66 Small projects don't fit the criteria 65 ➢ 88 Believe Models, Outcome reflected discussion that took place 53,56,57,64,65 ➢ 89 Answer, outcome became obvious, seemed inevitable 53

	➢ 108 Prejudices, biases become obvious 53,55,56 ... CM only codifies prejudices 51 ➢ 117 Use DC as a means of not taking responsibility for the decision 48,54,64 ➢ 137 Some concern re the nature & quality of the bids going in 48,50,51,55,64 ➢ 138 DC ensures you look at options logically, robust process 48 15 concepts
Ownership	**Ownership** ➢ 6 Outcome reflects personal values, views 48,50,53,54,55,56,65 - 51,52,53,56 ➢ 7 Would defend outcome outside DC 50,52,53,55,57 ➢ 11 Felt it was important to support the whole process, tied into process (also to maintain status in group) 48,51,56 ➢ 25 Felt relieved that a decision had been made 49, 53,54,64 ... anxious about decision ➢ 29 Felt responsible for outcome as part of a team 48,50,51,52,53,55,56,57 ... personally responsible ➢ 40 Participants (Pts) agreed to stand by DC decision (public commitment) 50,51,52 ➢ 41 Compliance with outcome 50,52,53,55,57 ➢ 42 Achieved consensus on a position 49,54,65 ... consensus contrived 51 ➢ 143 Felt partly responsible for Council's use of the DC process 50 9 concepts
Shared Understanding	**Shared Understanding** ➢ 1 Enhances Shared Understanding 48,49,50,51,52,53,55,56,57,64,65 ... SU not enhanced 48,52,53,54,55,56,64 ➢ 27 Focused on key issues 48,49,52,53,54,55,56,57 ... not focused on key issues 49,57,64,65 ➢ 34 DC generates questioning & discussion, express views openly 48,49,50,51,53,55,56,57,65 ... Talk cut short 49,50,53,54,56 ➢ 35 Safe environment, secure 49,52,55,57 ➢ 36 Participate fully 48,50,53,54,56,57,65 ... reduced participation 53 ➢ 91 DC gets people to think more deeply, revaluate views 48,53,57,65 ➢ 94 Low level of interest in particular issue or bid 53 ➢ 97 Contribute in a meaningful manner 53,55,64 ➢ 131 Established relationships & prior knowledge of area 48,50,51,56 9 concepts
Criteria	**Criteria** ➢ 67 Criteria ensured bids evaluated fairly 57 ... Criteria applied inconsistently 52,54,57,64 ➢ 83 Criteria were unclear, ill defined 52,54,57,64 ➢ 101 Criteria encapsulates Council's Strategic Objectives 49 ... Doesn't capture Strategic Objectives 50,53,64 ➢ 103 Criteria successfully captured all relevant factors 49,53,54,65 ... Criteria weren't all appropriate for making capital investment decisions 50,64 ➢ 134 Criteria confirmed at start of DC 49 ➢ 135 DC doesn't include the 'political stab' (in gen or as criteria) 52, 64 ➢ 136 There were bids in for consideration that shouldn't have been there 64 ➢ 141 Politics was a strong element throughout the decisions 64 ➢ 154 Used criteria from a previous DC 54,57 ➢ 159 Rating against Criteria in CM is a subjective process 64 10 concepts

Likelihood of Implementation	
General	➢ 15 Likely to implement outcome 48,49,50,52,55,56,57,64,65 ... unlikely to implement 51,52,53,56,64 1 concepts
Feasibility	➢ 16 Feasible 48,49,50,52,53,54,56,57,65 ... not feasible 48,51,52,53,57,64 ➢ 17 Some projects depend on external funding 48,53,54,56,64,65 ➢ 18 If these don't get up then agreed to move down the list 49,56,65 ➢ 57 Funding unlikely 52,53,54,57,64 ... funding likely 57 4 concepts
Pressure to implement	➢ 39 Chief Executive made it clear they were to stick to the decision 50,52 ➢ 50 Being together for two days forms a bond, team building 51,52,55,56,57 ➢ 51 Members & Officers are two separate entities in the Council 53 ➢ 61 As an Officer, pt will comply with members decision (commitment to position, professional) 52,53,55 ➢ 71 Had the chance to listen to others, a mix of viewpoints 52,55,56,57 ➢ 1 concepts ➢ 85 Role of Officers wasn't made clear 52 ➢ 111 Outcome fell within pts area 54,57,65 ➢ 119 DC provided the appearance of objectivity 54 ... objectivity itself ➢ 120 There was a hidden agenda to resolve the pool issue politically 54,55 ➢ 124 External pressure from voters for the pool to emerge as a priority 54 ➢ 125 Pool issue was causing division in the Council 49,51,54,55,57,64 ➢ 126 Outcome was the one members were looking for 48,52,55,57,64 ➢ 139 Officers & members in DC together ➢ 142 Failure to implement will reflect badly on the Council 48 ➢ 155 Officers felt pressured to agree with DC outcome 50,51,52 15 concepts
Defensible Process	➢ 19 Participants could defend outcome to non pts 49,53,55,56,64 ➢ 20 DC provides an audit trail 48,49,53,55,56,64 ➢ 55 Rigour of CM means can't really manipulate process 49,50,51,53,55,65 ➢ 80 DC is a structured, rational means of decision making 49,50,51,52, 53,56 ... not objective 51 ➢ 118 DC enabled a solution to be found without loss of face 54,55 5 concepts
Political influences	➢ 10 Labor, Liberal alliance controls the Council 57,65 ➢ 13 Gain Council support for DC outcome 49,57,65 ➢ 14 Outcome endorsed by Full Council 48,49,55,56,57,65 ➢ 56 People from main power groups were involved in DC 57,65 ➢ 62 Non pts not committed to outcome 52,53,57 ... non pts committed to outcome 5 concepts
Exclusivity	
Exclusivity	➢ 23 Indep & Conserv feel out in the cold as not involved in DC 57,65 ➢ 26 Reps from each group should have been involved 65 ➢ 32 Outsiders perception of DC causes 'aggro' towards pts 51,65 ➢ 43 Most Committee members hadn't been involved 50,51,54 ➢ 44 DC was seen as an exclusive process 49,50,51,53,55,56,64,65

	➢ 45 Outcome went back to Committees for review 50,54,64,65 ➢ 47 Likely to use DC again 57 ... not likely to use DC again 57,64,65 ➢ 58 Non pts felt that their 'democratic' decision making power was taken away from them 51,54,55,56,65 ➢ 59 Those not involved felt bitter, excluded, suspicious of the process 51,52,53,54,55,56,64,65 ➢ 60 Potential for pts to lose position in the party, lose respect of non pts 51, 65 ➢ 69 The name 'DC' & report made outcome look like the final decision, should have been a recommendation 52,54,56,65 ➢ 104 DC process should be explained, communicated more to non pts 53,64,65 ➢ 113 Chief Officers should offer advice, not make decisions 54,53 ➢ 114 Having Officers and politicians together in DC inappropriate 54 ➢ 115 Officers should have been excluded 54 ➢ 116 More Members could then have participated 54,64 ➢ 133 After DC some non pts reluctant to endorse something they were excluded from 49,50,57 ➢ 144 Costly, time consuming process 50 ➢ 150 Only a limited number of Members involved in DC 48,49 ➢ 151 Some concern about who was and wasn't involved in the DC 65 ➢ 152 DC appeared to be happening in isolation from other decision processes 65 ➢ 153 Group was still too large 54 ➢ 156 There should be a review mechanism for after the DC 165 ➢ 176 Committees should've been able to put in a list covering all areas 64 ➢ 177 Produce a corporate capital program 64 ➢ 178 Gain wider involvement & ownership in the Council 53,64,65 ➢ 182 Committee chairs (Members) in DC were fighting for their corners 52,55,57,64 ➢ 186 Committees couldn't possibly duplicate all of the discussion and analysis 50,54,64,65 ➢ 187 Committees couldn't realistically make any changes to the recommended decision 50,54,64,65 29 concepts
Loss of Control over Decision Making	
General	➢ 63 Members seemed to feel threatened by having Officers as 'equal' pts 53 ➢ 75 Pt felt like they had lost control over the decision making 52,53,54,65 2 concepts
Computer Modeling	➢ 28 Good preparation or prework (understand issues to be addressed) 48,52,53,56,57 ... Poor prep, prework 48,52,55,64 ➢ 30 Concerns, difficulty with CM process 48,52,53,54,56,57 ... no difficulties with CM 49,50,51,57,65 ➢ 31 CM (e.g. weights) conceptually difficult 48,52,53,54,56 ➢ 52 CM draws out discussion 48,51,52,56,57 ➢ 73 No's & ratings didn't seem to have been done properly, doubts about the scoring 51,52 ➢ 74 Perception that Model wasn't coming up with the right answers 52 ➢ 78 DC rushed, pace difficult 49,52,53,54,57,65 ➢ 79 CM takes inputs & calculates outcomes 52,65 ➢ 96 Understanding the issues makes CM easier 53,64 ➢ 107 Previous DC experience 48,49,53,55,56,57,65 ... no previous DC experience 56,57 ➢ 110 Pt uncomfortable applying numbers to comments, values 51,54 ➢ 128 People don't say anything about not understanding 55 ➢ 129 People don't want to reveal their ignorance, appear foolish 55

	➢ 130 A dummy run would resolve some process issues 55,57 ➢ 132 CM involves weighting options against criteria ➢ 145 Members not involved in preparing bids 48,50,51,57,64 16 concepts
Facilitator (Fac)	➢ 46 Fac successfully manages DC process 51,52,53,54,55,56,57,64,65 ➢ 48 Potential for fac to manipulate process 51,64 ➢ 49 Relied on Fac for helping with CM process 51 ➢ 68 Fac provides structure 49,51,52,55,57,64 ➢ 76 Fac seemed to be influencing decisions in one or two areas 51,52,53 ➢ 77 Fac pushes it along a bit too much 52 ➢ 106 Independent facilitator 49,51,53,55,64 ➢ 127 Fac able to draw out provocative issues 55,57 ➢ 140 Fac Keeps people on track 49,51,55,57,64 9 concepts
Gets to a decision	➢ 53 DC is less confrontational than other meetings 51 ➢ 21 DC allowed pts to consider unexpected options 49 ➢ 22 Got to an outcome pt couldn't have got to on their own 48,49,55,57 ... didn't need DC to do this 54 ➢ 54 Purpose of DC was to achieve a consensus, get to a decision 49,50,51,53,54,57,65 ➢ 100 Get to a decision 48,50,53,56,57,64,68 ... no decision made 5 concepts

Following is a discussion of each of the principal themes, including where relevant their relationship to the concepts of commitment, shared understanding and computer modeling.

6.3.5.1 Commitment – The Cluster

The **Commitment** cluster is large and complicated with 44 Concepts. The range of sentiments captured in this cluster is illustrated in the quotes below:

> I was pleased with the outcome..if I was going to do the list that was probably the way I would have put it [Laughing]...and I am very much committed. N050 P41 Councilor

> I don't have a personal role. But I professionally support it and I will carry it out if that's the members' wish. …I would have been committed to it if we had been flicking pennies, I think. N053 P89 Officer

These two quotes begin to illustrate the complexity of the issue of commitment, in that whilst all of those interviewed stated that they were committed to the outcome to some degree or another, further discussion revealed that this didn't necessarily mean the same thing for everyone. The multi-dimensionality of this theme partly explains why we see the emergence of four sub themes, as shown in Figure 6-3. The four sub-themes and their associated colour coding are described below:

- Decision Quality (olive) – aspects regarding the perceived quality of the decision.
- Ownership (pink) – issues to do with feelings of ownership and responsibility for the decision. This also incorporates the notion of compliance – an area which is further developed in a discussion of the second cluster 'Likelihood of Implementation'.
- Shared Understanding (beige)- how the feeling of belonging and establishing a shared understanding and bond amongst the group impacts on commitment.
- Criteria (mauve) - the importance of the criteria used to evaluate the options and issues surrounding setting of criteria.

Figure 6-3 Commitment presents this cluster and its four sub-themes in full. Following the map is a discussion of the central concept *Commitment* (#5) and the four sub- themes within this cluster.

Figure 6-3 Commitment – The Cluster

6.3.5.1.1 Commitment – The Concept

Participants were asked a number of questions about the workshop outcome. The full interview guide is presented in Appendix B, however the primary questions related to commitment included:

Q10 The main outcome from the Workshop was the following prioritised list of bids for recommendation to the full Council (check for agreement that this was the perceived outcome).

Q11 How do you feel about this outcome?

Q12 Would you say that you feel personally committed to the courses of action indicated by the outcome of the Workshop?.

Q13 What made you feel committed/not committed to this outcome?

Q14. Do you have any personal reservations about the outcome?

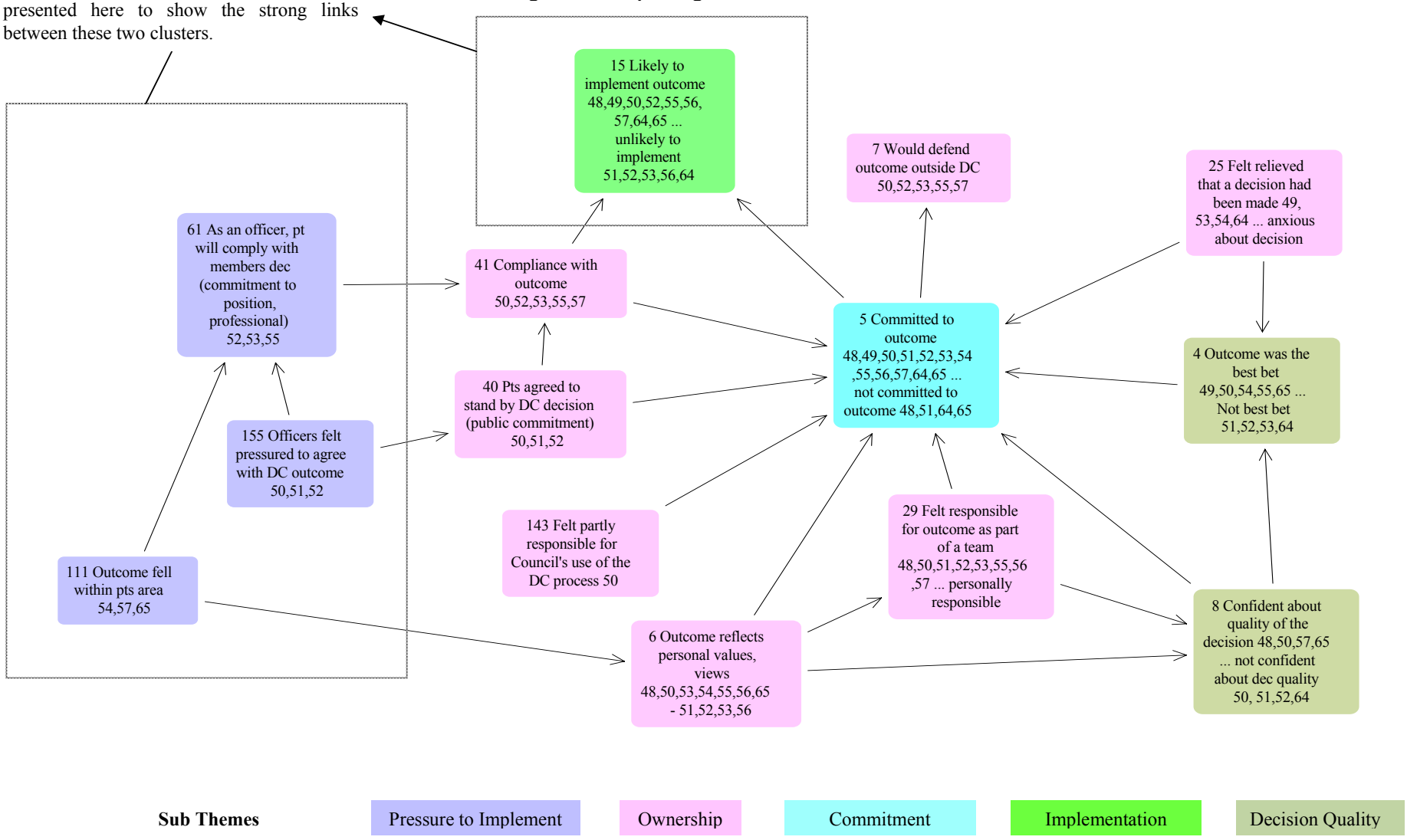
As discussed in the overview of the Case 2 DC Decision Conference, all twelve participants interviewed indicated that they were committed to the outcome (#5), although five of the participants also expressed some ambivalence about their commitment.

To further understand some of the elements directly impacting on the development of commitment to the outcome (#5), the *Explore Concept* command was utilised. This command graphically displays the specified concept on the screen with any concepts that are directly linked to it, in a one level fanned map (Jones 1994). Figure 6-4 Exploring Commitment presents the result of this exploration and shows that there were eight concepts directly linking into commitment. This encompassed the following:

- Whether the outcome reflected the participant's personal values and beliefs (#6).
- The degree of confidence in the quality of the decision (#8) – note that one of the key routes to this concept was based on the perception of Decision Conference as a structured rational means of decision making (#80).
- The extent to which the outcome was seen as the 'best bet' (#4).
- Relief that a decision had been made (#25) implying that the aim of the Decision Conference had been achieved.

These concepts fall within the second cluster *Likelihood of Implementation* and are presented here to show the strong links between these two clusters.

Figure 6-4 Exploring Commitment



- Generation of a sense of shared responsibility for the outcome (#29) – an important element for the majority of participants.
- Whether participants felt responsible for the use of the Decision Conference process by the organisation (#143).
- The extent to which the commitment was publicly made (#40).
- The extent to which participants felt that it was part of their professional duty to comply or that there was some other external pressure to commit to the outcome (#41).

All of the above were seen as positively linked to the enhancement of commitment, which in turn was seen as making it more likely that the outcome would be implemented (#15). Enhanced commitment also meant that participants felt they would be more inclined to defend the outcome to non-participants (#7).

Evidence of these various aspects of commitment is captured in the following comments typical of those who expressed full commitment:

> (Commitment was due to).. the way the way that (the Facilitator) did it, having agreed the criteria, having had my opportunity to argue on each score that was given… if you accept the integrity of the process I think you have to stand by the result N056 P51 Councilor

> (I'm committed because) the role of this department is very much to bring about corporate projects…So (in developing commitment),...there's that departmental responsibility, the professional pride, there's member's expectation .. (and) we will be measured, our performance will be measured by (Members). If we don't deliver, then they'll be disappointed and we've got to answer the consequences. N057, P90 Officer

Inherent in the above comments are issues regarding decision quality, ownership, belonging and professional integrity. As indicated earlier, five individuals directly expressed some ambivalence regarding commitment. For these participants there was evidence of the impact of their position on the degree of personal commitment. Other factors include notions of status, feasibility and perceived decision quality. Typical comments included:

> Yes and no (re feeling personally committed). Yes I will go along with it because I think it is essential to keep the integrity of the process together. No because two of the projects that came within the band that we can afford as I have already said, I think and it is not just

> a personal view, were based on false assumptions of what would be available from outside matched funding. N048, P126 Councilor

> In terms of spend of capital resources. I personally didn't feel it was the best way that we could have spent our resources. And I think also, we didn't relate, it didn't relate totally, it related in certain parts to what our strategic objectives are… (however I am) committed in the sense that if that's what's come out and that's what members have agreed, then, fine, let's get on and do it. The debate's as far as I'm concerned is now over. It was agreed at full council yesterday, that that's what we're going to do, so let's do our best. And let's do our best to deliver it. N064 P43 & P62 Officer

This last participant's quantitative survey response indicated he was highly committed and cared a great deal about the outcome. However, here we can see that underlying this statement of commitment was a strong dedication to his job and carrying out the decisions of the Council. In the survey, his feelings were perhaps more accurately reflected in his response to the best bet question, in that he clearly disagreed that the outcome was the 'best bet' given the circumstances. This participant allocated a score of two on the seven-point scale to this item, where a one indicated strong disagreement and a seven indicated strongly agreement. This person would do his job, regardless of personal beliefs about the quality of the decision. This was a common thread throughout the interviews with the Chief Officers.

Another dimension of this ambivalence was that for some interviewees, most of the outcome was acceptable, but they had doubts about sub elements of the overall outcome. A typical example of this follows, where this individual expressed some personal reservations, especially with regard to some of the smaller projects that didn't get up, but was prepared to put these aside once 'the group' had made the decision.

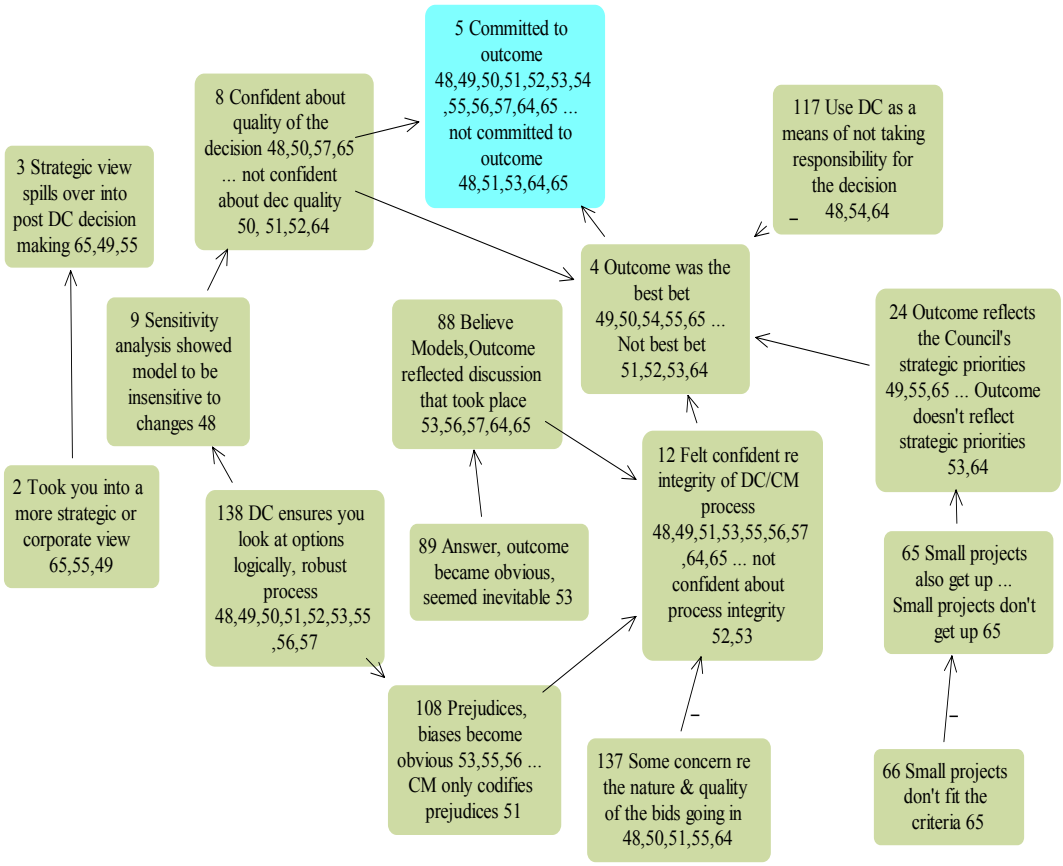
> Well I will defend it.. (but) I am not totally committed to it…I am not quite satisfied that this is the only way that we can do things (but) once we'd made the decision I was committed to it, because that is the decision and the result of that is that I fought for the decisions since then you know and that's it. N065 P80, P114 Councilor

For Councilors, commitment was generally linked to whether the outcome reflected their personal views and their confidence in the integrity of the process. With the Officers, commitment was generally more a reflection of their professionalism rather than their support for a particular outcome.

6.3.5.1.2 Decision Quality

The diagram below illustrates the sub-theme *Decision Quality* and also highlights where the central concept of Commitment (#5) fits in relation to this grouping.

Figure 6-5 Decision Quality



Decision Quality is primarily about the decision being seen as the best one that could be made under the circumstances (#4); that it reflected the Council's strategic priorities (#24), that it reflected the discussion that had taken place (#88, #89); and that the process itself had integrity (#12, #108, #138, #9) thus leading to confidence in the quality of the decision (#8). As outlined in the previous section, seeing the outcome as the best bet and feeling confident about the decision quality was then perceived as leading to an enhanced commitment to the outcome (#5).

> I am convinced in myself that, that is now the right order of buy at the end of the day and I would stand by that. N050 P58 Councilor

Where the outcome *was* seen as the best bet this was largely explained by the fact that people felt confident regarding the integrity of process (#12).

> Well my confidence in the outcome was secure because of the system, because of the way it operates, and when you are used to winning or losing on the basis of a debate or an argument and no structure within which that happens…then it's reassuring to know you have done it properly. N053 P91 Officer

Another factor impacting on decision quality was the perception that the outcome reflected the Council's strategic priorities (#24).

> What decision conferencing does is it forces you to recognise that you are attempting to determine your level of spend based on your corporate priorities and that concentrates the mind. And if everything you do has got an economic development stance to it, as opposed to some sort of social stance or stewardship stance, it's because that's where your priorities lie as a council and it doesn't matter at the end of the day that all the money is spent by one committee, if that's going to achieve the best fit for the authority as a whole, well then that's acceptable. N049 P64 Officer

One of the more frequently mentioned factors impacting on perceptions of decision quality was whether the outcome was seen as reflecting the discussion that took place. As in Case 1, those participants who felt that the outcome reflected the preceding debate were also more confident about the decision. The outcome was not a surprise at the end – this relates to concepts #8 (confidence re the decision quality), #12 (confidence re the process) and #88 (belief that the models & outcome reflected the discussion). The following comment reflects this view.

> I think we all felt, because of the comments that were made, that once that the final scores were on the wall that they were roughly if not almost exactly what we would have expected. That's not to say that we'd have expected that before we walking into the process, but as the process developed it was clear that some were going to be winners and others were just not worth debating. In fact, at some stage during day 2 I think we began to say, look, there's no point wasting time on this one because it's going to be so far below the line so don't bother. N053 P53 Officer

The logical structure of Decision Conferencing and the support provided by the facilitator was also seen as contributing to participants' confidence in the process and their perception that the outcome was the 'best bet' (#4):

> …having our thoughts channeled in a structured way and having a facilitator trying to ensure an even opportunity to be involved in the

> debate, no one person was able to dominate it by their personality alone, and as a result I think the answer that came out the other end was the best answer. N049 P66 Officer

Confidence in the process was also specifically enhanced by the structured nature of the Decision Conference, and through use of sensitivity analysis (#9) i.e.

> ..it's the logic of the conference prioritising system. It makes the participants' feel that they understand the reasons why it's there. And in fact although there was some dispute over scoring, what the facilitator at the end demonstrated (was) that some quite large changes in individual scores didn't produce massive changes in the priority list. So by doing that, that showed that even though we got, might have got some things wrong in detail, on the whole, the process was logical and the evaluation was logical. N048 P148 Councilor

While this was overtly identified as a factor by only one of the participants, it was implicit in many of the other interviews. To some extent computer modeling was in the background for participants, so it was rare for interviewees to comment directly on aspects of modeling such as sensitivity analysis. Participants were naturally enough more focused on the content and outcomes than on the details of the modeling process.

Where it was perceived that the Decision Conference was being used as a means of avoiding responsibility for the decision (#117), this was thought to lower the quality of the decision. Driving this avoidance of responsibility was the perceived hidden agenda to resolve the swimming pool issue (#120)

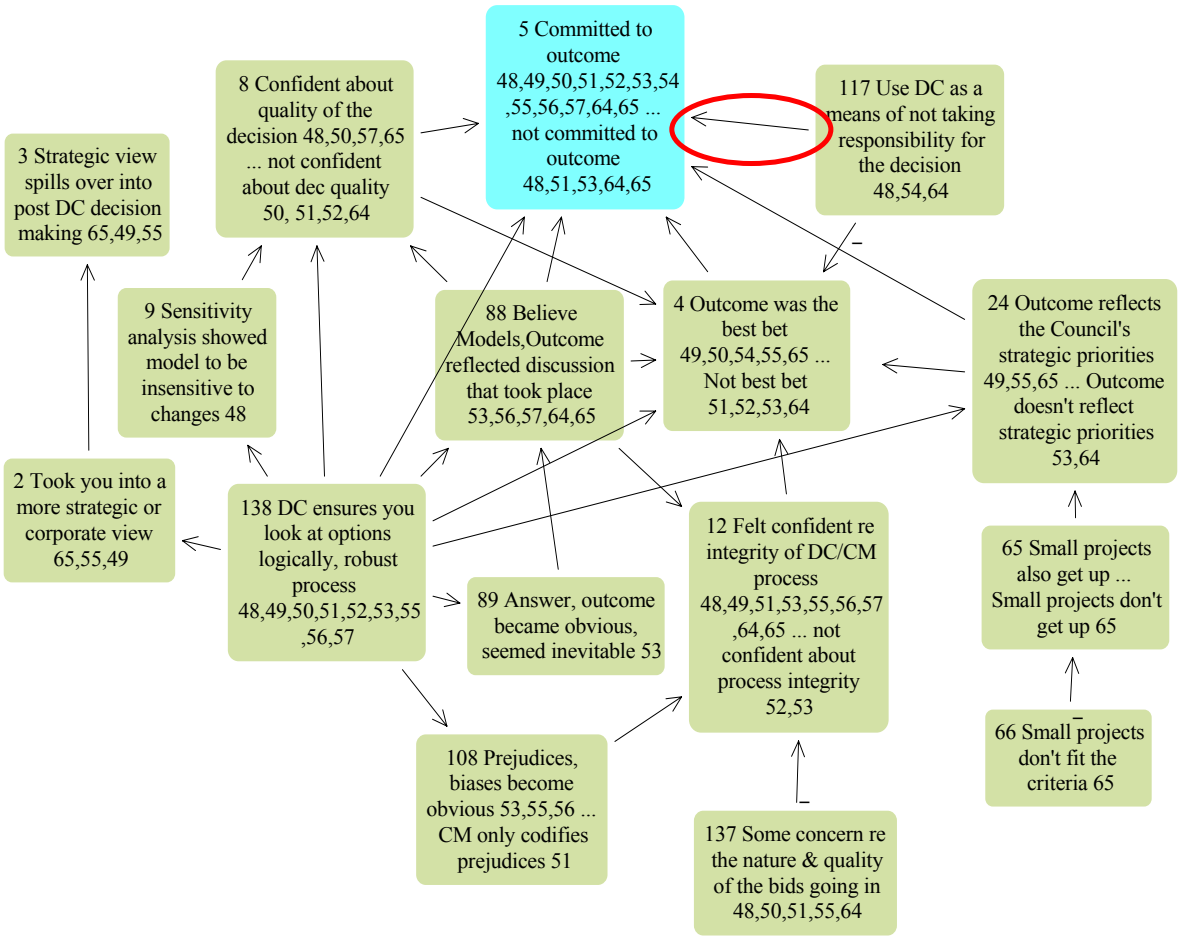
> Now those of us around the table..know the lottery don't give 90% you see, others could say let's hope they do but all of them could say well if we don't get it well it's not our fault is it? So that's what it was about, that was the hidden agenda and that was achieved. N054, P12 Councilor

> If it was going to be killed at all, let it be killed by the lottery bid (i.e. not getting the funding from the Lottery Commission), and not by the Members N064 P97 Officer

A *collapse* on the view in Figure 6-5 also revealed some interesting links and demonstrated that the Decision Conference was not only seen as a useful means of avoiding responsibility for some (#117), but that this ability to sidestep responsibility ultimately **enhanced** commitment. Figure 6-6 presents the collapsed view with this link circled in red. Recall from Chapter 3 that 'Collapse' is a process that hides all

other concepts that are not part of the set, but retains links, whether direct or going through other concepts, between concepts in the set.

Figure 6-6 Decision Quality (Collapsed View)



A further investigation of this rather unexpected consequence through Path analysis, which traces the various paths whereby a specified concept links to the target concept, revealed that one of the reasons this occurred was because it enabled a solution to be found to a difficult issue without loss of face.

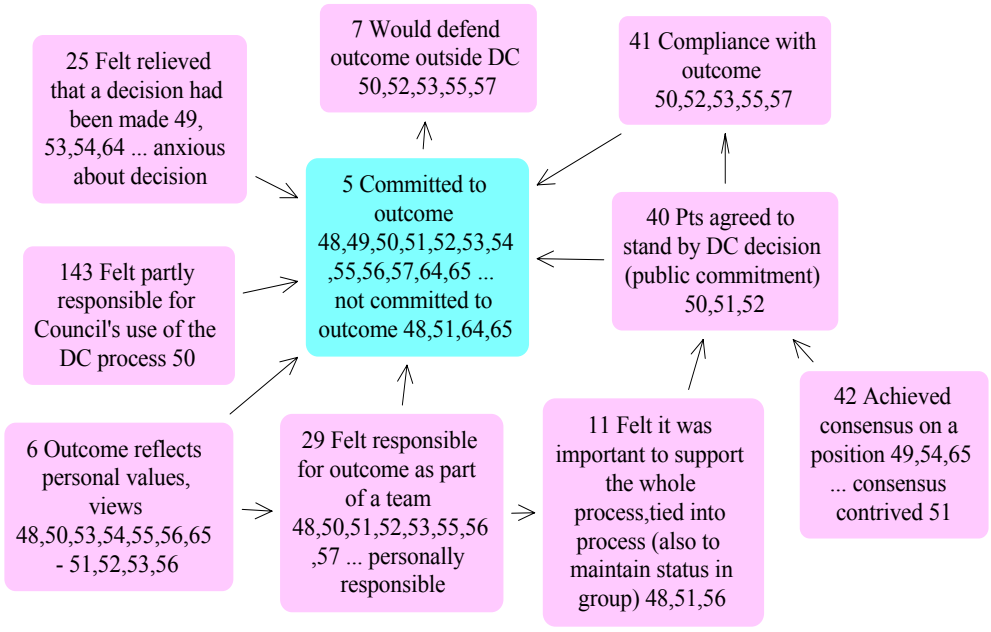
> …when the final result was shown there was a audible sigh of relief. That was the outcome, not a shared understanding but shared relief, that a device had been found to make sure those people who were opposed to the pool and those people who were passionately for it and those people who were torn in between. A device had been found for not one of them to lose any face at all. N054 P11 Councilor

This issue of relief at coming to a decision (#25) is discussed further in the next section, while the notion of achieving this without loss of face (#118) is linked more closely with the theme *Likelihood of Implementation*.

6.3.5.1.3 Ownership

The third sub-theme within the Commitment cluster was that of *Ownership*. Figure 6-7 illustrates this grouping and also highlights where the central concept of Commitment (#5) fits in relation to these concepts. The clear link between all of these concepts to both commitment to the outcome and to the defense of the outcome outside the Decision Conference (#7) is also evident.

Figure 6-7 Ownership



Assuming responsibility for and ownership of the decision is a key part of this sub theme, regardless of whether this sense of responsibility was internally driven or imposed by others. Getting people to feel committed to the outcome (#5) and prepared to defend the decision (#7) was partly a function of ensuring ownership.

> I thought the outcome was generally acceptable in the sense that we'd all contributed and we all tacitly accepted the premises on which the

> scoring is done. And therefore we couldn't do other than accept the outcome. N051 P175 Councilor

A strong positive was the fact that the group actually reached a decision, especially where achieving a result was their stated intention for participating in the Decision Conference in the first place. Four of the participants spoke specifically about the sheer relief of finally having made a decision and indicated that this directly enhanced their commitment to the outcome.

> My initial reaction was enormous relief and I'd be surprised if other people didn't have a similar reaction. It came up with an answer that none of us believed was possible and if we had sought to create an answer without the process and without the facilitator, I don't believe we'd have ever come up with the answer that we came to. N049 P56 Officer

As indicated earlier, one participant even went so far as to say that the whole point of using the Decision Conference process was about solving this particular dilemma for the Council i.e.:

> Oh no I mean it was about relief, it was about a way out, it wasn't about shared understanding …it was a way out. There was a serious problem that they were facing, as you know and the problem was whether they would have the swimming pool in (place name), that's what it was about, the rest was dressing. N054 P8 Councilor

Being part of a team and generating a feeling of shared responsibility (#29) was also a common element, with the majority of participants identifying this as an important step in generating commitment. For example,

> Do I feel responsible? Well I defended the process within my group when it has been attacked…it was agreed that we should go down this road ,and although I do have and have had doubts about it, you know I give some sort of loyalty. I suppose that's what it creates being stuck two days together. Even a skeptic like me. Then, you know, have some sort of loyalty created to the whole done thing. Perhaps that's the, you know, that's part of the brain washing if you like that almost goes on. It's like these assault courses that you go on in the army…many years ago I was (on a course) and although you hated the guts probably of the bloke next to you, if he gave you a hand across the river or whatever, you created some sort of bond. N051 P142 Councilor

The public nature of declaring commitment in the group also reinforced feelings of ownership of the outcome (#40).

> There was certainly pressure put on to make sure everybody stuck by the line that the decision conferencing had come up with. … basically it was a comment made by the Chief Executive who had turned around and said "We have gone through this process, we've spent 2 days doing this, you know the process, we've come up with this order of buy I expect you to go and tell all the other Councilors that's what it is"… N050 P68 Councilor

As intimated at the beginning of this discussion of commitment, the role of compliance (#41) was a particularly strong one and also formed part of the ownership sub-theme. Seven participants indicated some degree of willingness to fall in line for reasons other than the traditional notion of commitment (as discussed in Chapter Two: Literature Review). For the Chief Officers this included the view that the requirement to comply with Members' decisions was inherent in their role. The following quotes illustrate this.

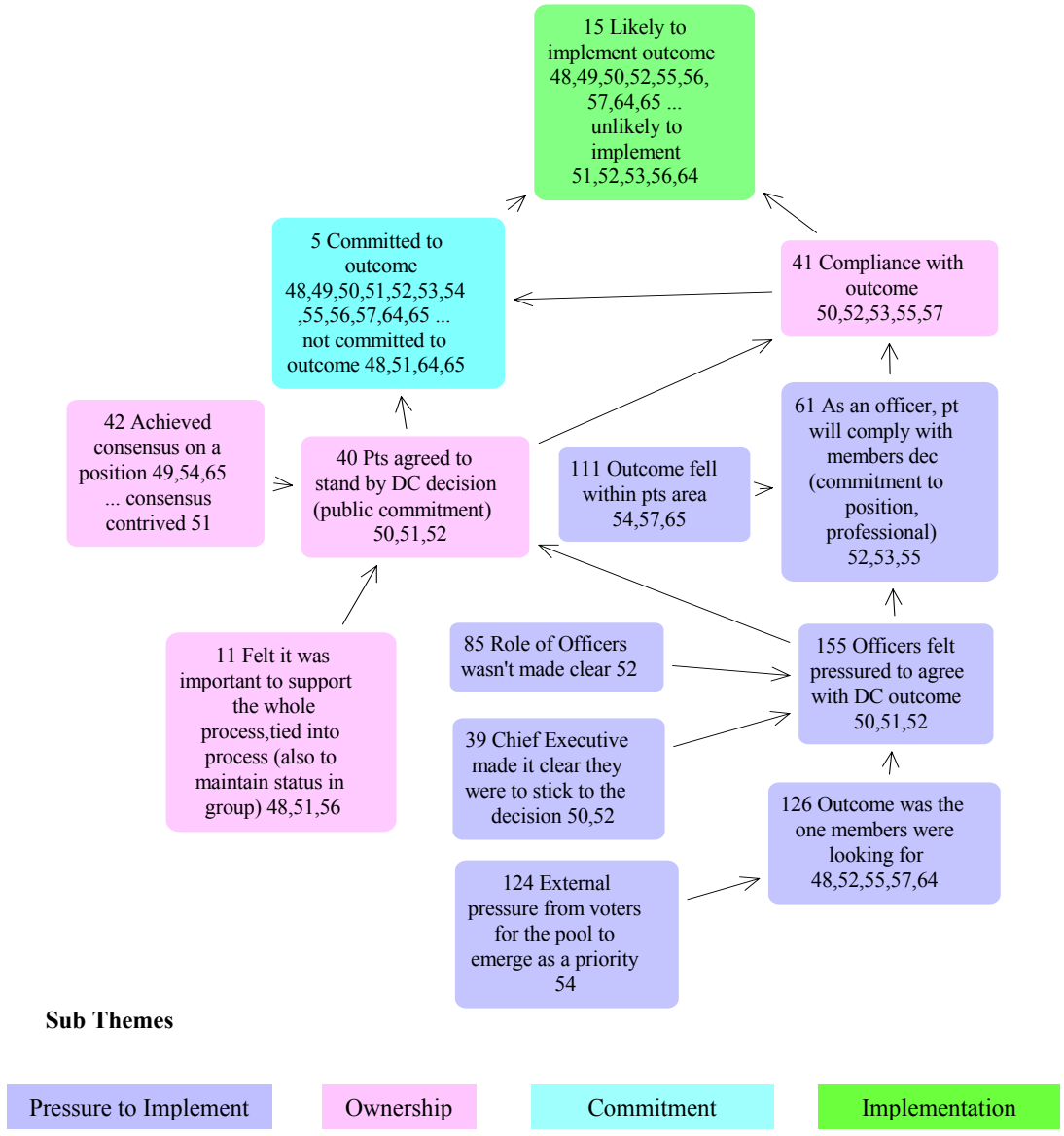
> It's a decision of the Council, I'm just an Officer who serves the council, the Members made the decision, the Members account to the public for their decisions. I'm here to support the outcome. N055 P84 Officer

> My feelings on that are irrelevant. I advise members, they make a decision and I implement that. The council has now made a decision and I have to implement that. That's not a problem for me … I don't have to agree with it to implement it. N052 63, 65 Officer

Here we see a strong sense of professional responsibility impacting on participants' levels of commitment to act on the outcome of the Decision Conference.

While the whole group of concepts related to compliance did not overall emerge as a principal or sub-theme per se in the analysis, the concept was quite pervasive in that it was strongly linked to the *Commitment* and *Likelihood of Implementation* clusters as well. Given this and the fact that was such a strong element in the development of commitment, especially for Officers, it is worth briefly focusing on this concept before moving on. Figure 6-8 presents those concepts most closely associated with compliance in the composite map. As can be seen from the range of colours in this map, the concepts form part of four sub themes: commitment, pressure to implement, ownership and implementation.

Figure 6-8 Compliance



Most of the concepts presented in Figure 6-8 are covered in separate discussions regarding the relevant Principal Themes. However this picture reinforces the finding that for many of the participants in this group, commitment and subsequent implementation was not just about perceived decision quality, understanding the issues, or any of the other direct links put forward in the Decision Conferencing literature. For these people it was more about being part of a group (#40) and achieving a visible group decision (#40,#42), feeling tied into the process (#11),

being pressured to agree by those who have more control or influence in the decision making (#39, #155,#126) and being professionally responsible for seeing that the job was done (#61,#111). Some of these concepts related to compliance are explored further in section 6.3.5.2.2 Pressure to Implement.

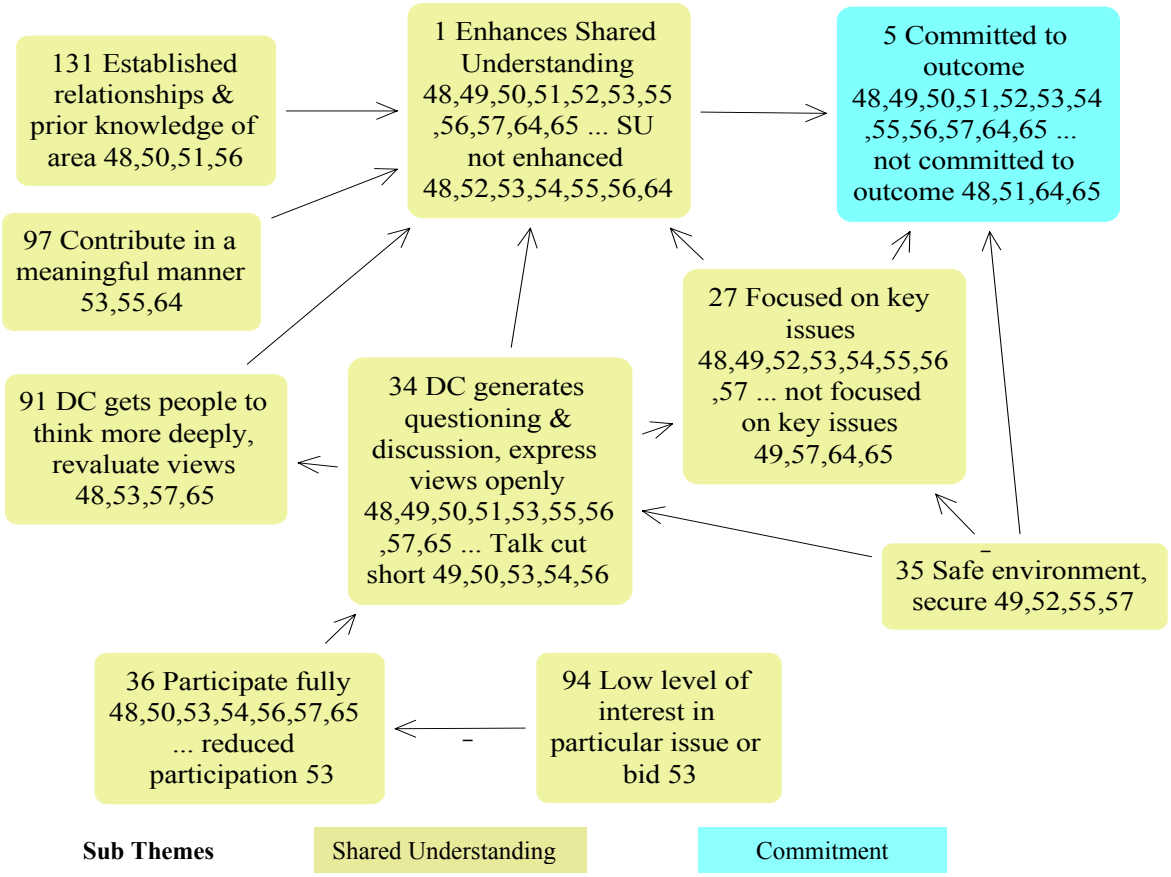
6.3.5.1.4 Shared Understanding

The development of a shared understanding among participants is seen as one of the central tenets of Decision Conferencing and emerged as a significant sub-theme for participants in the Case 2 DC Decision Conference. Shared understanding does not necessarily imply an agreement by participants, rather it implies that participants understand the others position with respect to the issue under study. As one person stated:

> I think what we understood was not so much about the process, but of the problem that we faced. N064 P9 Officer

This section explores the concepts making up this sub-theme and through use of the *collapse* function in Decision Explorer™ also highlights the connection to the central concept of Commitment (#5). This interconnection is presented in Figure 6-9 Shared Understanding (Collapsed View). It is important to note that when the map is not collapsed **there is no apparent direct link** to commitment (#5) from any of the concepts. What is evident if the map is collapsed, however, is that enhancing shared understanding (#1), focusing on key issues (#27) and working within a safe environment (#35) all ultimately facilitated the development of participants' commitment. The fact that these links are not evident unless the view is collapsed indicates that even though the link exists there are a number of mediating factors. These intervening factors will be discussed further in Section 5. 4 Addressing the Research Questions.

Figure 6-9 Shared Understanding (Collapsed View)



As the development of a shared understanding was one of the central areas of interest in this study, the *Explore Concept* command was again utilised to further focus in on this important concept. As discussed earlier, this command graphically displays the specified concept on the screen with any concepts that are directly linked to it, in a one level fanned map (Jones 1994). Figure 6-10 Exploring Shared Understanding presents the result of this exploration and shows that there were eleven concepts directly linked with shared understanding. Four of these result from the development of a shared understanding i.e.:

- Developing a shared understanding facilitated a more strategic or corporate view (#2) and enhanced participant confidence in their decision making (#8).

- Developing a shared understanding also enhanced the view that the models developed during the process and the final outcome reflected the discussion that took place (#88).
- The outcome became obvious, seemed inevitable (#89).

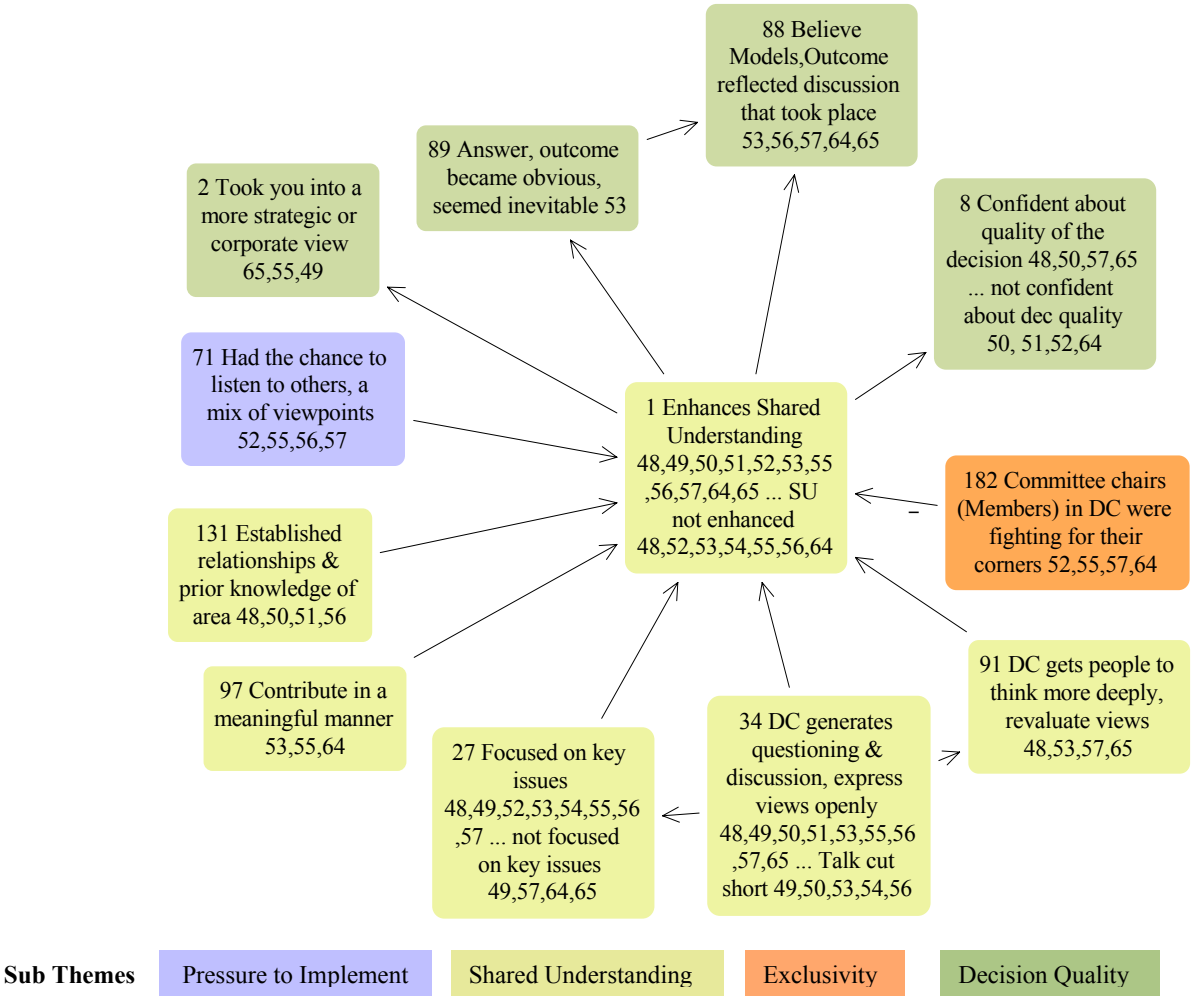
Six other concepts lead directly to development of a shared understanding:

- Focusing on key issues (#27).
- In-depth discussion and exchange of views regarding the issues to be addressed (#34).
- Listening to others and being exposed to a range of viewpoints (#71).
- People being prepared and able to contribute in a meaningful way (#97).
- The opportunity to reflect on what was taking place and to possibly reevaluate their previously held views (#91).
- Previously established relationships and prior knowledge of the area (#131).

The relationship between these concepts and shared understanding (#1) is a positive one, in that an increase in any of these was seen as leading to an enhancement of the level of shared understanding. Also implicit in this is that if the first condition was not met, for example if there was very little discussion or discussion was not focused on the issues, then this had a negative effect on the level of understanding achieved by the group.

There was also one concept that was seen as directly detracting from developing a shared understanding and that was where Councilors were perceived to be more concerned with "fighting for their own patch" rather than considering the organisation as a whole (#182).

Figure 6-10 Exploring Shared Understanding



Coming to a shared understanding of the issues was definitely perceived as a benefit by many of the participants and was largely seen as a function of people getting together and discussing the problems at hand (#34, #71). A typical comment follows:

> (the Decision Conference) took some very disparate service providers and different personalities, different personal agendas, and all that sort of thing, and came out of the sausage machine with a sort of end product as it were…. there's a greater appreciation of individual's problems through talking through bids before they're scored. N057, P148 Councilor

The opportunity to reflect on the issues in a way that was not always possible under normal circumstances (#91, #97) was also important, for example:

> …even though we take items to committees and things of that sort, you don't feel that people truly understand all the issues that they're required to be making a decision on. I think there was a better appreciation of that, the total needs of the organisation and the fact that we can't afford them, that sort of thing. It has to be said that because they're few and far between, the fact that Members and Officers do work together, it's got to be beneficial ....P148 N057 Officer

Previously established relationships and prior knowledge (#131) were also seen as strongly contributing factors in developing a shared understanding.

> Well, quite frankly a lot of that shared understanding preceded the workshop, in that obviously, I knew the views of some of my colleagues, particularly on the elected side beforehand. You know. through discussions one had with them and meetings and group meetings so on and so forth. N051 P6 Councilor

On occasion, developing people's understanding of the issues they were facing resulted in people changing their preconceptions (#91). The following two quotes provide examples of this:

> (the process) forces people to re-examine their subjective feelings about projects as well and may be in some cases accept that it's not such a good one, certainly not in value for money terms as they thought. And also maybe recognise benefits in others that they had thought were poor projects. N052 P208 Officer

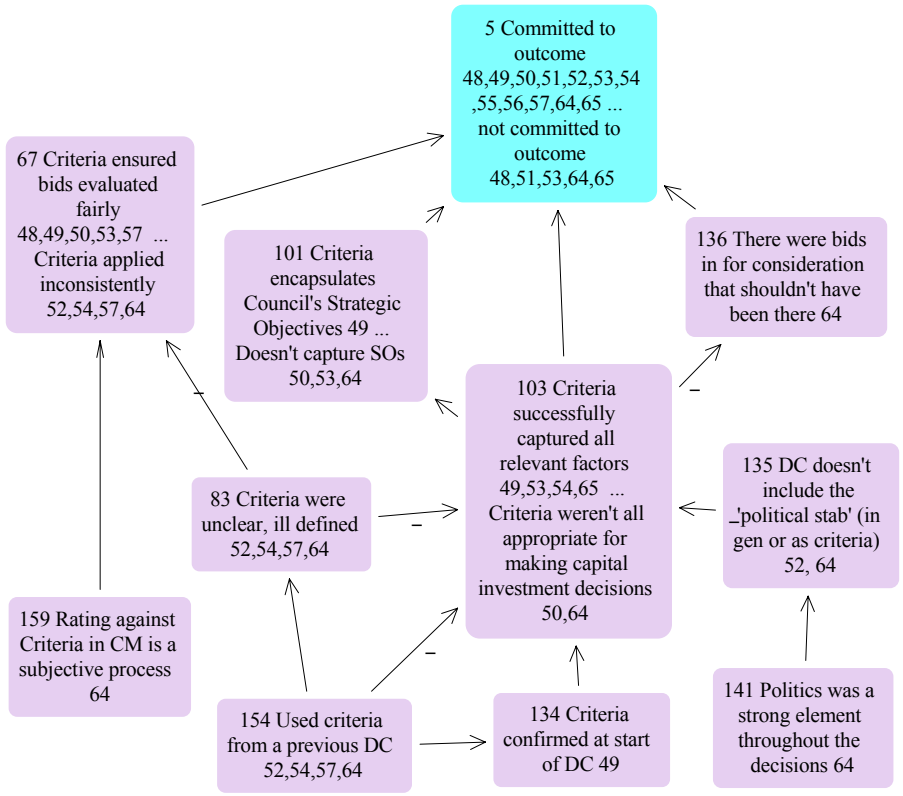
> …having gone through the process those which you didn't have a commitment to before I think you probably were a bit more committed to having seen, having heard, after having seen them being subject to the same criteria. So, yeah, if you found something which at the start you would have thought "Well, do we really need to be bothering with that?" and then you find that actually it comes out higher than something you were championing, you're going to think for a moment, well, you know it's got there because of the process so, yes, I ought to be backing that. N056 P63 Officer

This last quotation also highlights the importance of the use of a structured process and evaluation against set criteria as a way of generating understanding. The significance of setting and applying criteria is discussed next in Section 6.3.5.1.5 Criteria, the final sub-theme in the *Commitment* cluster.

6.3.5.1.5 Criteria

Figure 6-11 illustrates the sub-theme 'Criteria' and also highlights where the central concept of Commitment (#5) fits in relation to this grouping.

Figure 6-11 Criteria



Nearly all of the participants interviewed (i.e. 9 of the12) accepted the use of criteria as critical to the Decision Conferencing process. However, there were mixed views about whether the setting and application of the criteria was as successful as it might have been (#103).

Two of the interviewees felt the criteria did not adequately encapsulate the political dimension of the decision-making process (#135). This meant they weren't totally satisfied with the outcome even if they were happy with and trusting of the process. Others felt that the political dimension should not be included during the Decision Conference as this would be something that could be overlaid after without sullying the objectivity of the whole exercise (e.g. N053 Officer).

A relevant comment follows where the participant observed that the criteria should be matched up with the strategic objectives of the organisation:

> I think, well the criteria were valid for the exercise. What I would have liked is that someone tied up more accurately as part of the method of this approach, criteria against what the council's criteria would be used for other purposes. We have a statement of corporate strategy which the criteria didn't match, the criteria in Decision Conferencing, and if it had then you've got the two things are meshing. So we had to do a bit of fiddling to make sure that things actually fitted into 4 convenient boxes….and that's a little bit dodgy.
>
> Ideally there should be some sort of blue print that you follow. Then if the council's strategy happens to have 6 criteria then the model should be capable of taking that on board and saying "Oh well I can tailor this for you". We have to tailor our council's strategy to the model, because the model was built into the software, "Oh dear you can't change that can you?" so there was a bit of lack of confidence right at, you know, 30 seconds into this (when) we found that it wasn't exactly what we needed. N053 P85-87 Officer

This person had the impression that there were limitations on what they could use as criteria. This in turn undermined the perceived quality of the decision-making process.

As mentioned at the beginning of the chapter, the criteria were the same as those used in a previous Decision Conference. This caused difficulties regarding perceived relevance for at least four of the participants (#154). For example:

> (the criteria) were given, OK, that was **not** the debate in the Decision Conference. That's what had been used last year and it had been decided we'd use the same things and I got (into) a heated argument with that, because I really didn't know what I was going into. And on the two days we really didn't address the issue. We found them difficult. N064 P32 Officer

However, comments regarding the criteria weren't all negative. The use of criteria in the modeling process was also seen as a vehicle for ensuring rigour and objectivity in the decision-making process (#67) i.e.:

> ..against each of the criteria you had to consider that project and you had to be quite hard at times and say well actually no it doesn't score anything under any of these except that one. Whereas your basic, your instinct might have been to say, yeah this one will get through, but when you actually punch it through the rigour of the machine so to speak it doesn't. N053 P21 Officer

Successfully capturing all of the relevant factors in the criteria (#103) was seen as a means of ensuring that the criteria encapsulated the Council's strategic objectives

(#101), decreasing the likelihood that unsuitable bids were included in the final decision set (#136) and potentially increasing participants commitment to the outcome (#5). Comments about the computer modeling also reflect a topic discussed earlier, namely confidence in the quality of the decision.

> Oh (the structured modeling process) was helpful yes, yes that was very helpful, because you've gone through the process and know that it was justified by the criteria and the way you've been working, the actual process itself, yes, it gives you great confidence in the end result. N050 P54 Councilor

Having discussed the various sub-themes that make up the *Commitment* cluster, the next section focuses on the second major theme to emerge, *Likelihood of Implementation.*

6.3.5.2 Likelihood of Implementation

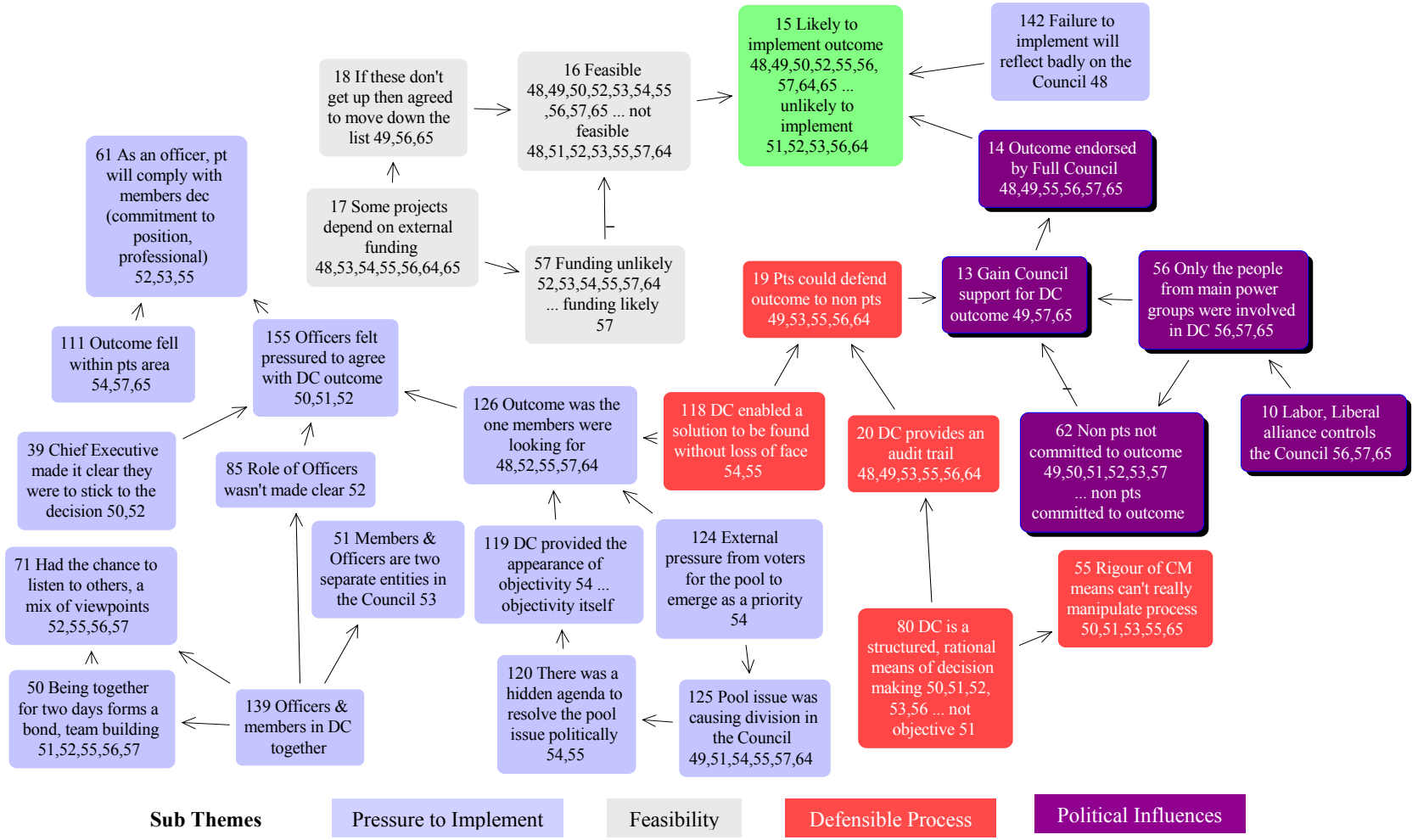
The second cluster *Likelihood of Implementation* was another relatively large grouping, containing 30 different concepts. This section begins by presenting this cluster as a whole, then briefly explores the actual concept "Likely to implement outcome" (#15) before turning to focus on each of the sub-themes contained within this grouping.

Likelihood of Implementation was about gaining support for the outcomes, shoring up agreement and implementing the outcome. It encompassed the Officers' role in supporting Councilors' decisions, the importance of finding a defensible solution to the divisive swimming pool issue and the role of the key power brokers in gaining full Council support. Commitment (#5) was not captured as part of this cluster. A possible interpretation is that perhaps it wasn't as important that all participants felt committed as that the key power brokers got agreement and compliance from people and were thus able to push the outcome through the full Council.

Figure 6-12 presents this cluster with the following four sub-themes and associated colour coding:

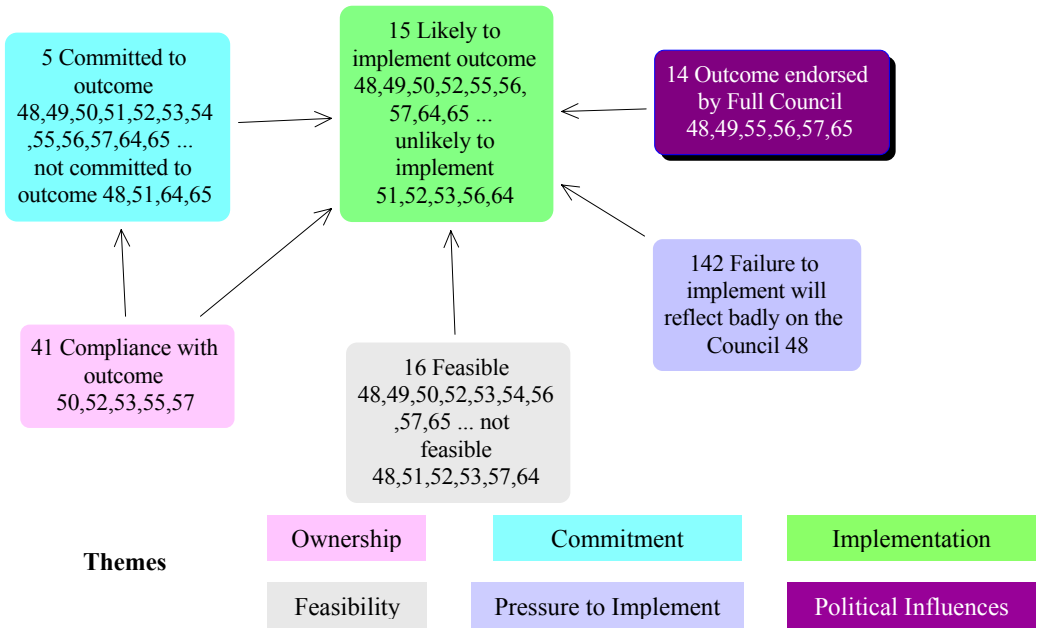
- Feasibility (pale blue)
- Pressure to implement (darker blue)
- Defensible process (rose)
- Political influences (purple)

Figure 6-12 Likelihood of Implementation



As mentioned earlier, participants saw the potential for increasing the likelihood of implementation (#15) as one of the key benefits of the Decision Conference process. As such it is worth exploring this concept further before examining each of the sub-groupings within the *Likelihood of Implementation* cluster. Figure 6-13 Exploring Implementation illustrates the 5 concepts directly linking into Likelihood of Implementation (#15).

Figure 6-13 Exploring Implementation



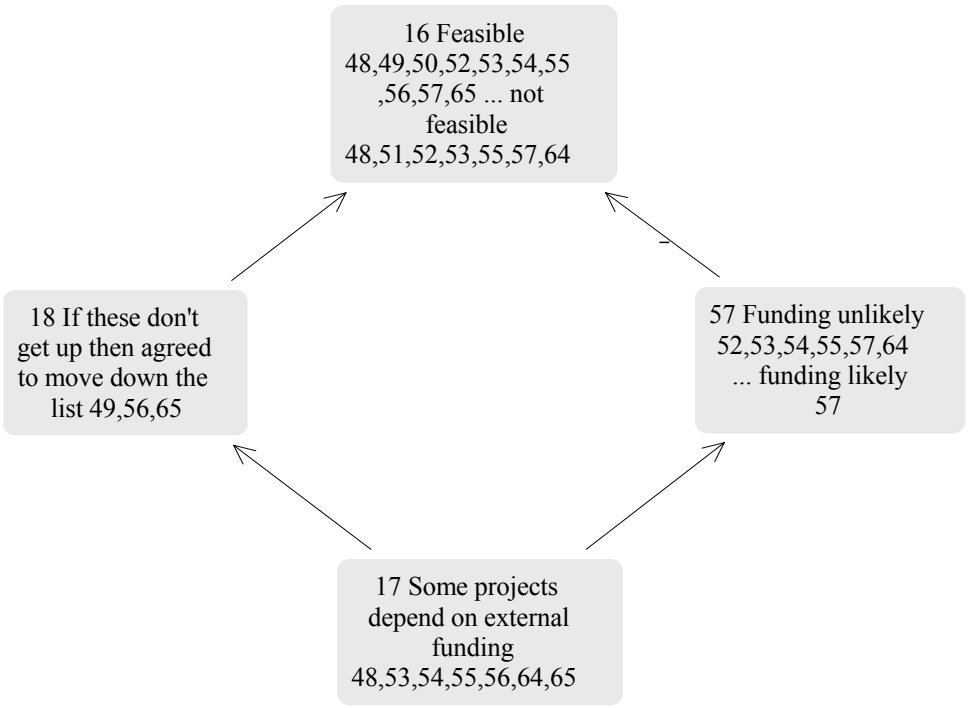
One of the participants strongly believed that a failure to implement would reflect badly on the Council (#148). At least 6 participants suggested that endorsement by the full Council (#14) signified that implementation would be more likely. Compliance with the outcome (#41) and/or being committed to act on the decision made (#5) was also seen as supporting implementation by all of the participants.

Finally, feasibility was viewed as a factor impacting on the likelihood of implementation by 11 of the 12 participants interviewed (#16). Figure 6-13 also shows that the majority (nine) of participants felt implementation of the outcome was likely. However, reservations were expressed by six participants regarding the perceived feasibility of implementing all of the options as a result of the reliance on external funding (#16). Following is a discussion of each of the sub-themes within this cluster, beginning with Feasibility.

6.3.5.2.1 Feasibility

Perceived feasibility was one of the four sub-themes within this cluster. Figure 6-14 presents the four concepts that make up this sub theme. Ten participants commented that they thought the outcome was feasible (#16), however five of these also made comments suggesting uncertainty about the feasibility of implementing those projects (#16). Their concerns were largely based on the dependence on external funding for some of the major bids. Half of the participants felt that this funding was unlikely to eventuate (#57), implying that the outcome would be unlikely to be implemented in its original form. Despite these reservations, only two participants were unequivocal in their view that the whole list of priorities was basically unworkable (#16).

Figure 6-14 Feasibility



For the majority who felt it was feasible, their assessment was largely based on the fact that even if one or two items became unworkable for some reason, their prioritised list was still actionable i.e.:

> Well, by having a prioritised total list of course, we are putting our commitment into those items that got into the 1.4 million spend. If for

> any reason, one of those fails because the partnership funding isn't achieved then you don't have to say let's have a whole new debate about what we'll spend money on, because we've got the rest of the prioritised list there and what we can say is that if number 1 falls out what comes in it's place. N049 P91 Officer

The ambivalence regarding feasibility (#116) was in many ways just a different way of looking at the same issue. That is, that some of the bids were dependent on external sources of funds in order for them to be implemented.

> Well the one item that came very high - the very expensive one - I don't think is feasible. I don't think it will happen partly because it depends on funding from elsewhere as well. It even may be cynically that everybody knows it, that it hasn't got much chance and therefore plan B, which is the other schemes that could come in if that doesn't go ahead, will in fact succeed at the end of the day. N053 P53 Officer

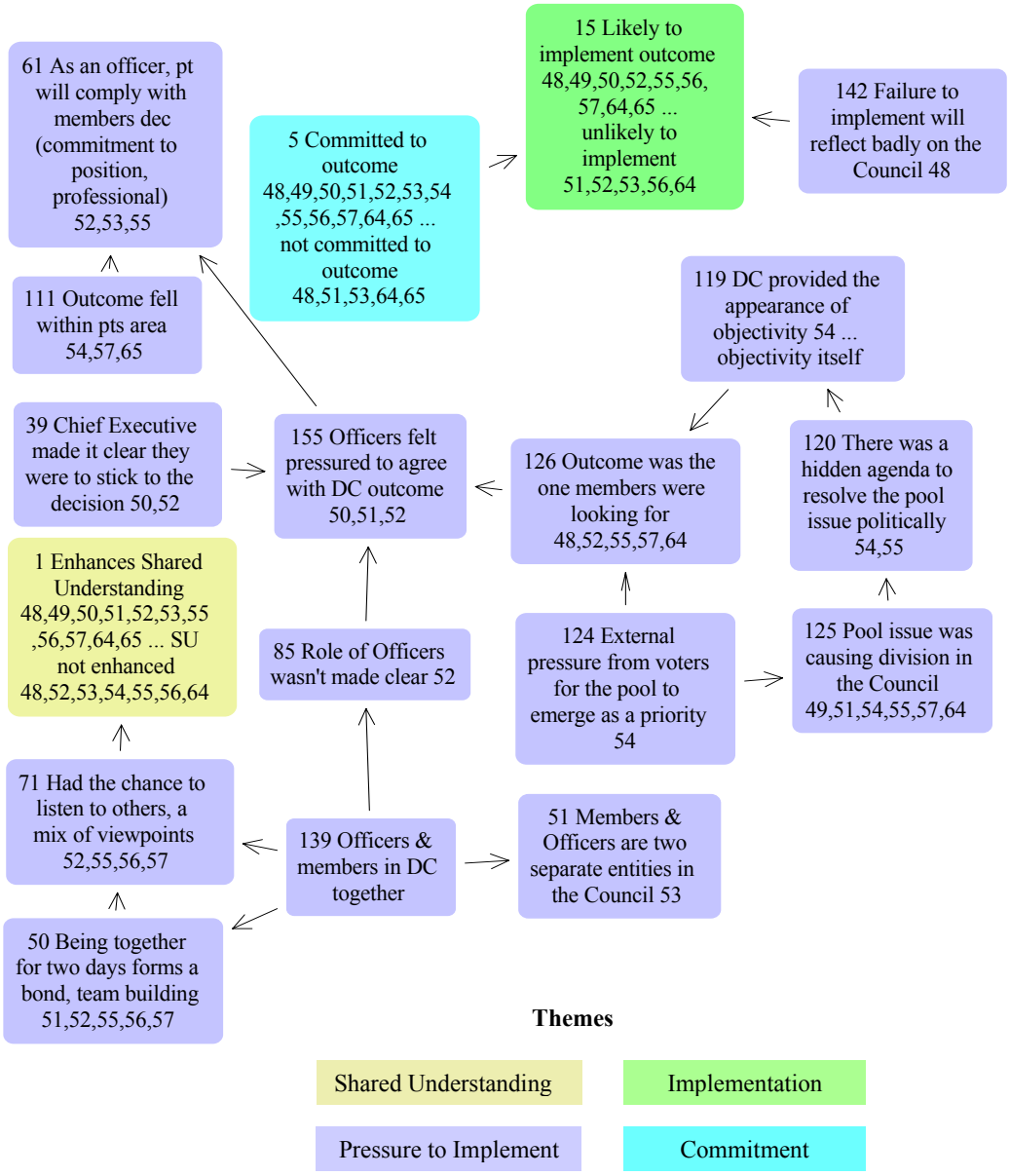
The two participants who felt that there was a problem with the whole list of priorities indicated that in their view the Decision Conference was more of a political exercise aimed at avoiding responsibility for some hard decisions i.e.:

> And we've ended up with a list of projects which is probably **politically** expedient, because .. top of the list is a swimming pool…which is based on a lottery bid that we **won't** get. There is no question. They have never **ever** awarded that level of grant. ..the politicians .. have argued for a swimming pool and they want some mechanism maybe of killing it off in a different way. So, **we** didn't kill it off, the lottery killed it off. N064 P38, Officer

6.3.5.2.2 Pressure to Implement

A second sub-theme in this cluster centred around pressure on participants to be committed to act on the outcome and implement the decisions made during the Decision Conference. Figure 6-15 presents the concepts and inter-relationships that make up this sub-theme. This diagram also highlights where the central concepts of Commitment (#5) and Shared Understanding (#1) fit in relation to this grouping. While not illustrated here as the intersecting lines makes the diagram difficult to read, a Collapse on this view demonstrates the numerous links that exist between the concepts in this sub-theme and both commitment (#5) and the perceived likelihood of implementation (#15).

Figure 6-15 Pressure to Implement



Perceived pressure to implement the outcome from the Decision Conference came from a variety of sources, including comments attributed to the Chief Executive urging participants to stick to the decision (#39, #155) i.e.:

> …basically it was a comment made by the Chief Executive who had turned around and said "We have gone through this process, we've spent 2 days doing this, you know the process, we've come up with this order of buy. I expect you to go and tell all the other Councilors that's what it is". N050 P62 Councilor

Additionally, Officers felt it was their role to comply with Councilors' decisions (#61, #85,#111,#51). While the concept *Compliance with outcome* (#41) formed part of the Commitment cluster, many of the other concepts that lead to compliance (#61, #85,#111,#51) emerged in the analysis as being strongly linked to the likelihood of implementation. In terms of increasing the likelihood of implementation, both the importance of the role of the participants and the view that the outcome was what Councilors were looking for (#126) are evident in the following comment:

> I felt that it was probably the outcome that the group of members were looking for…and the members are the members. They decide that, that's their decision and I live with that… I advise members, they make a decision and I implement that. N052 P51,63 Officer

This appears to be partly linked to the perceived power differences between Councilors and Officers and some confusion regarding the role of the Officers within the Decision Conference (e.g. as captured in concepts #52, #139, #155, #61). Comments regarding this area were made by 10 of the 12 participants. Two participants were explicitly in favour of the perceived 'equal footing" which was encouraged during the process, for example:

> Well it's interesting that got members and officers on an equal footing. It is unusual to the point of decision making anyway. We're often.. on equal footing in a debate but not all the way through the process to making a decision. Normally the officers shut up at that point. So that was interesting, because of the facilitator those ground rules that were there on equal footing were adhered to without any embarrassment. I think if it had been lead internally then we might not have got away with that. N053 P23 Officer

However, all participants did not share this view. Others felt that the power differences resulted in reduced participation by Officers (e.g. N052 and N048) and two of the participants explicitly stated that they felt that bringing together of Officers and Politicians in this way was inappropriate and in some ways threatening i.e.

> ..my view is that a chief officer offers advice and then doesn't say any more, right. You do not involve yourself in any way with the decisions because the decisions are political and you're not elected… I'd have had the officers out. You see in a way if the officers are in you're inhibited…and I suspect they are to. So I think it would have been better without them present N054 P112 , P128 Politician

All of the above acted in ways that were seen to bring pressure to bear on the final decision made and linked back again to the broad thrust of this cluster, perceived likelihood of implementation.

In tangent to this, was a sense of camaraderie and a shared responsibility (#50, #139) developed during the Decision Conference, which meant that there was a reluctance to let others down. The following comment is a typical example of this.

> ..(there was) a knowledge that if you didn't meet the objectives, then there was inevitably going to be criticism, and to a certain extent we were all letting each other down.P28 N057 Officer

Additional drivers regarding likelihood of implementation included external pressures from voters (#124), the sense that a failure to implement the outcome would reflect badly on the Council (#142) and the fact that this particular outcome provided a means of resolving the divisive swimming pool issue (#125, #120, #119).

6.3.5.2.3 Defensible Process

This sub-theme is evidence of direct support from at least eight of the participants regarding the claim in the literature that Decision Conferencing brings rationality and consistency into decision making. The argument is that the application of Decision Analysis, the applied technology that was developed from Decision Theory (French 1989), guides the problem solving process and thus provides both a defensible route and an audit trail regarding the final outcome (Phillips 1989d). Participants felt that the Decision Conference was a defensible process where the following conditions applied:

- The outcome could be defended to non-participants based on the process used to reach a decision (#19).
- The Decision Conference process provided an audit trail so that the steps leading to the final outcome could be tracked down (#20).
- The rigour involved in the computer modeling process ensured that the process couldn't really be manipulated (#55).
- The Decision Conference process was seen as a structured, rational means of decision making (#80).
- The Decision Conference enabled solutions to be found without loss of face (#118).

A typical comment follows:

> It's the basic robust logic of it that is its strength. Nobody came out of either meeting, either conference saying such and such a project was rated unfairly. N052, P208 Officer

Largely the notion that Decision Conference was a defensible process was linked to the perception of the workshop as a logical, structured process, build on a solid framework. This is outlined in the following comment, however what we also see here is that this was also seen as being associated with preparation and some degree of shared understanding to enhance clarity. Structure alone was not seen as delivering the best outcome. This was discussed earlier under decision quality and also in relation to shared understanding.

> …without that structure one would have had a rambling discussion which didn't actually lead anywhere, you got to have a pretty rigid framework within which to run this system. If you don't well it's whole raison d'etre vanishes because you've got to be able to look at things on an equal footing and spot people's prejudices and have them marked down…And, so, that's where the clarity is equally as important as the prejudices. You've got to be sure you know what you are talking about and that you understand what you're scoring. N053 P19 Officer

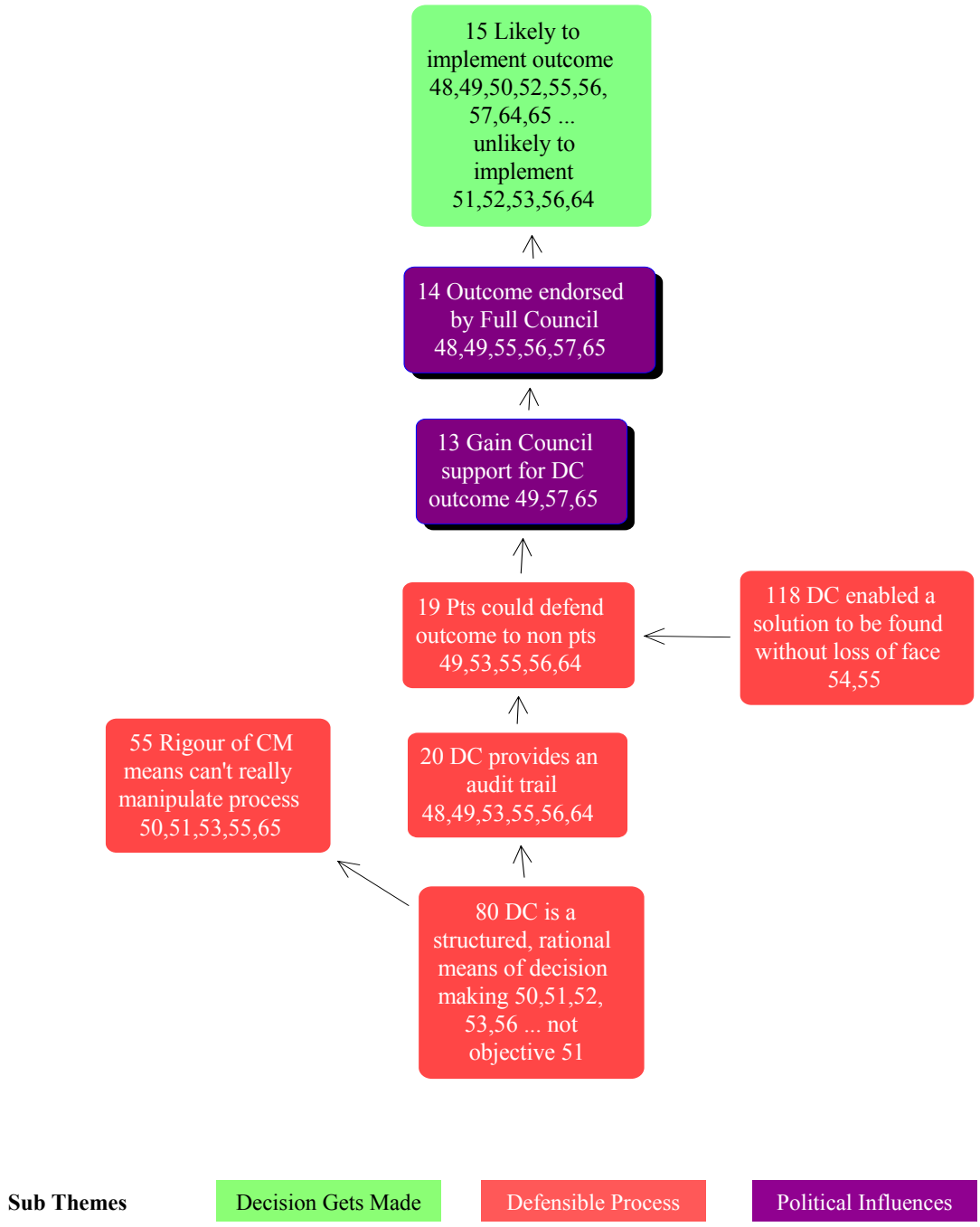
The five concepts that make up this sub-theme are presented in Figure 6-16 (over). The mediating links (#13, #14) connecting these concepts to likelihood of implementation (#15) are also illustrated here.

This notion of a structured, rational process that enabled a decision to be made and potentially defended was a strong element of this sub theme. The following quote is typical of the eight participants who explicitly raised this issue:

> Well, clearly the structured process does dictate how the meeting will progress. And that's a benefit because it means in something like that with looking at a capital programme with 30 bids, unless there is a structured way around, a meeting can be complete chaos and lead to nothing. Or lead to a deal in the backroom instead. So a clear structured process with a time scale that's reasonably adhered to is necessary. N048 P37 Councilor

As a consequence, Council support for the outcome was more likely to eventuate (#13, #14), thus increasing the likelihood of implementation (#15).

Figure 6-16 Defensible Process



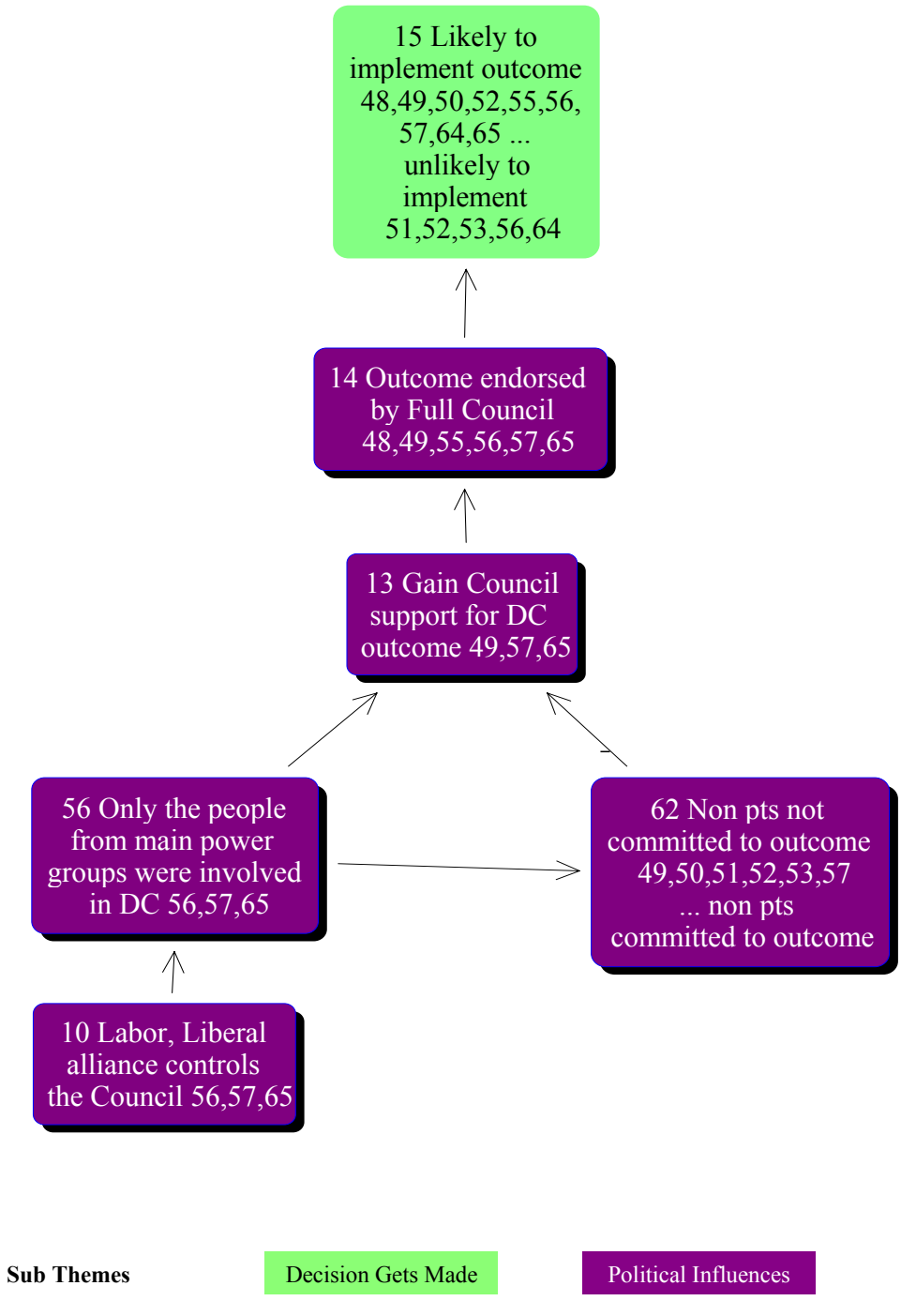
6.3.5.2.4 Political Influences

The sub-theme *Political Influences* encompasses the view that an increased likelihood of implementation may be partly attributed to the two major parties having the power and influence to gain full Council support for the outcomes of the Decision Conference, despite some opposition from those not involved. Figure 6-17 (over) presents the 5 concepts that make up this sub-theme and demonstrates the link with implementation.

As indicated at the beginning of this chapter, at the time of the Decision Conference Labor and Liberal were operating in tandem to manage the administration (#10). As a consequence, while these parties were represented in the Decision Conference (#56), there were no representatives included from either the Independents or the Conservatives. Six participants felt that as a consequence of this, non-participants were less likely to be committed to the outcome (#62).

However, three of the participants stated that because the Decision Conference did at least incorporate those who effectively controlled the Council, this was a contributing factor in gaining full Council support for the Decision Conference outcomes (#13). Endorsement by the full Council (#14) and an increased likelihood of implementation (#15) was perceived to be a consequence of this support from the major players. Thus, while the exclusion of some parties from the Decision Conference potentially watered down the support from the full Council (#13), this wasn't enough to prevent endorsement of the Decision Conference outcome (#14).

Figure 6-17 Political Influences



6.3.5.3 Exclusivity

The third cluster, *Exclusivity*, contains 29 concepts and highlights participants' perceptions of non-participants' views of the Decision Conference process and is closely linked to the previous discussion regarding political influences. This cluster formed a relevantly coherent group and as such has not been broken down into further sub themes. Figure 6-18 (over) maps out the concepts contained in this cluster.

Eight participants clearly believed that Decision Conferencing was seen by non-participants as an exclusive process (#44), which failed to gain wider involvement from the Council (e.g. #23,#26,#43, #116, #150, #152,#178) and thus was a threat to existing decision-making structures (#58). They felt that those not involved felt bitter and excluded (#59) and this impacted on outsiders' perceptions of both the process and those who had been included. The opposing power groups in the Council exacerbated this situation. The use of a small group process, which by its nature meant that not everyone could be actively involved (#150), was seen as threatening the democratic processes of the Council (#58). The following comment typifies the views expressed by participants regarding the above:

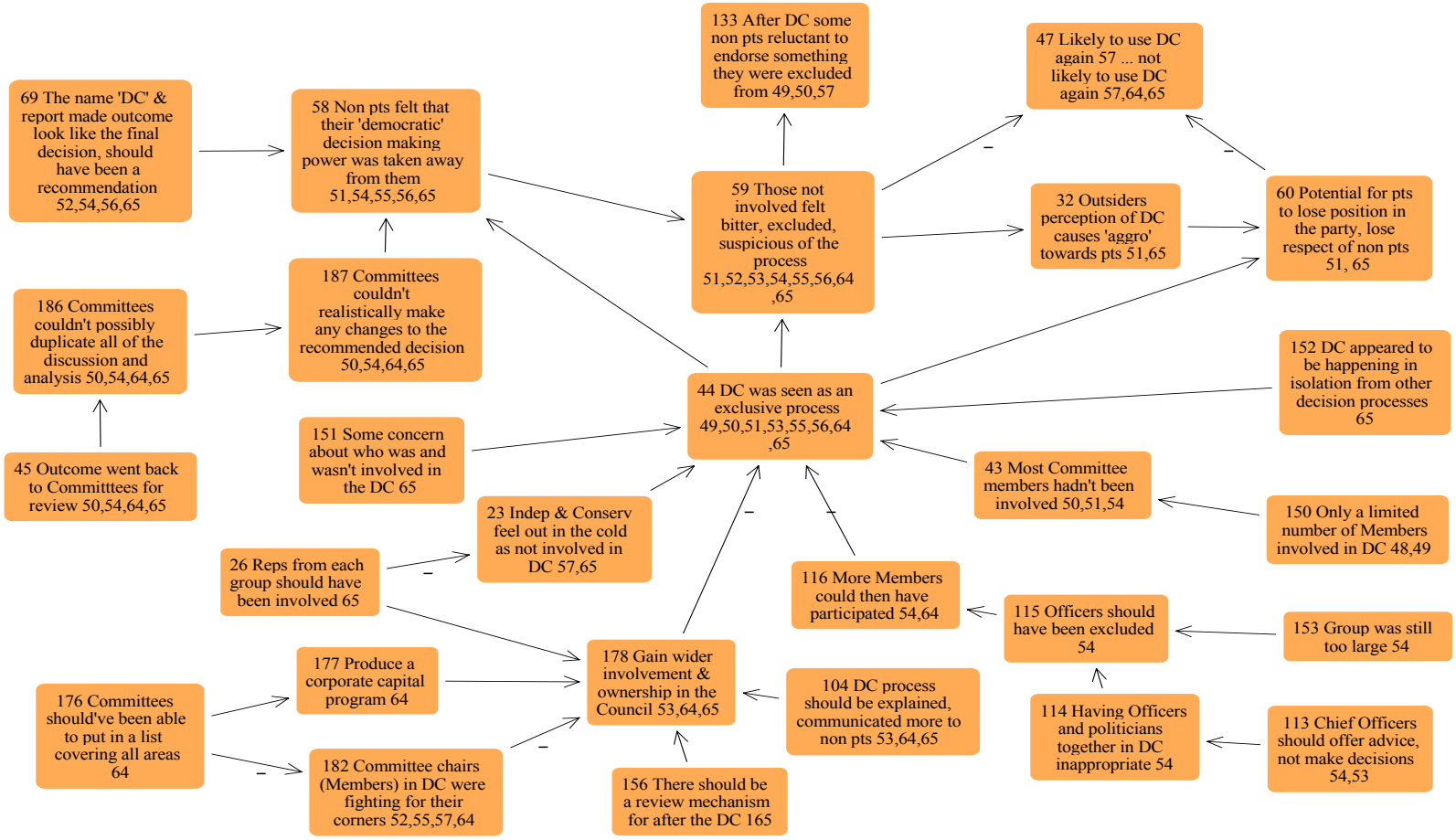
> I had a debate with the two groups that were completely disenfranchised by this. We've a small Conservative group and a group of Independents and they also were unhappy about the possibility of decisions being taken behind close doors and the fact that between them they represented a third of the council. N049 P127 Officer

A slightly different way to look at this was expressed by one participant who felt that it wasn't that everyone actually wanted to take part, but rather that they felt they were not permitted to that was the problem i.e.:

> You see if they had all been invited to participate, I wouldn't mind betting most of them would have refused the application. It's the fact that they weren't invited. That they were, in a sense, excluded. N051 P28 Councilor

There was also an additional party political element to this perceived exclusivity. Two participants described the Independents and Conservatives as feeling left out in the cold (#23, #26) and this was partly attributed to the fact that the Labour/Liberal alliance controlled the Council (#10).

Figure 6-18 Exclusivity



Some of those not involved in the process even referred to themselves as the 'Non Group Group' (N050, P26), further demonstrating the divisions generated through this process. Nor was this suspicion confined within the Council itself, as the following comment demonstrates:

> ...the press actually picked this up and they were sort of saying "Council decides spending priorities behind closed doors". There was a motion in council that in future all Members should be entitled to come to (a) Decision Conference, which, I mean, clearly was a misunderstanding of the program. N056 P41 Councilor

According to six of the participants, the way the outcome was presented to the Committees for review was also a factor in alienating non-participants (#59). Use of the name 'Decision Conference' and the report produced by the external service provider appeared to suggest to Committee members that the final decision had been made. Four of the participants suggested that it should have been presented as a recommendation, rather than the final decision (#69). It was this perception by non participants of the outcome as a final decision (#69) and the impossibility of duplicating the discussion and analysis that had taken place in the Decision Conference (#186), that meant the various Committees felt that they were unable to make any real changes to the recommended decision (#187) i.e.:

> …the messages came out "This has all been decided, hasn't it?" and so I think it's right that we put it round, but perhaps we should put it round in a better context encouraging debate and argument about it. Because most of the members I felt that at that stage were saying "Well it's been decided... what's the point of us raising comments? They're not going to change the order are they?" N052 P23 Officer

Two of the participants (#32, #60) felt that as a consequence of their participation in the Decision Conference they would personally come under attack from non-participants (#32, #60). As one interviewee stated:

> Within our group, and I don't want to be scathing or patronising about other members of the group, but it does produce a certain amount of envy you see because it is felt to be a magic circle. So you know I should probably get my comeuppance as a result. N051 P24 Councilor

Another driver of the perception that the Decision Conferencing was exclusive (#59) and thus threatening the democratic process (#58) was a view by one Councilor that the Officers should not have been involved (#153, #115, #114). This participant felt

that if Officers had not been part of the process, then more Councilors could have participated (#116), thus reducing the impression of exclusivity (#44) i.e.:

> I'd have had the Officers out. You see, in a way if the Officers are in you're inhibited…now if Members only had done it, then maybe the group could have been larger and met some of those anxieties from people who were excluded. N054 P128 Councilor

There was also some indirect support for this view from two other Councilors who had participated in the process (#113).

The effect of all of the above was that there was a great deal of negative feeling from outsiders towards the process (#59) and this was seen as translating into a possible reluctance to support the outcomes (#133). Typical comments included:

> We certainly seem to have lost the involvement of the whole council in the process, which is something we should certainly try to address somehow or other. N050 P44 Member

> ..people again said, "We've been excluded from...the process, so how can you ask (us) to endorse...it?" N057 P44 Officer

From the point of view of three participants, flowing on from this was a reduced likelihood of repeat use of the Decision Conference process (#47).

> Members have got a view, they don't want to touch it again with a barge pole…it was stated quite clearly yesterday (at the full Council meeting) N064, P148, P150 Councilor

Overall, the key to reducing the negative perception of the Decision Conference process held by outsiders was seen as largely a function of gaining wider involvement & ownership in the Council (#178). Suggested means for achieving this included:

- Carefully considering the makeup of the Decision Conference group, perhaps involving representatives from each of the political groups (#65) (1 participant).
- Better communication to non-participants regarding the process (#104) (3 participants).
- Committees being able to submit bids covering all areas, not just their own designated area (#176) (1 participant).
- Instigating a review mechanism after the Decision Conference (#156) (1 participant).

- Ensuring that the Decision Conference was not seen as something happening in isolation from other decision processes within the organisation (#152) (1 participant).

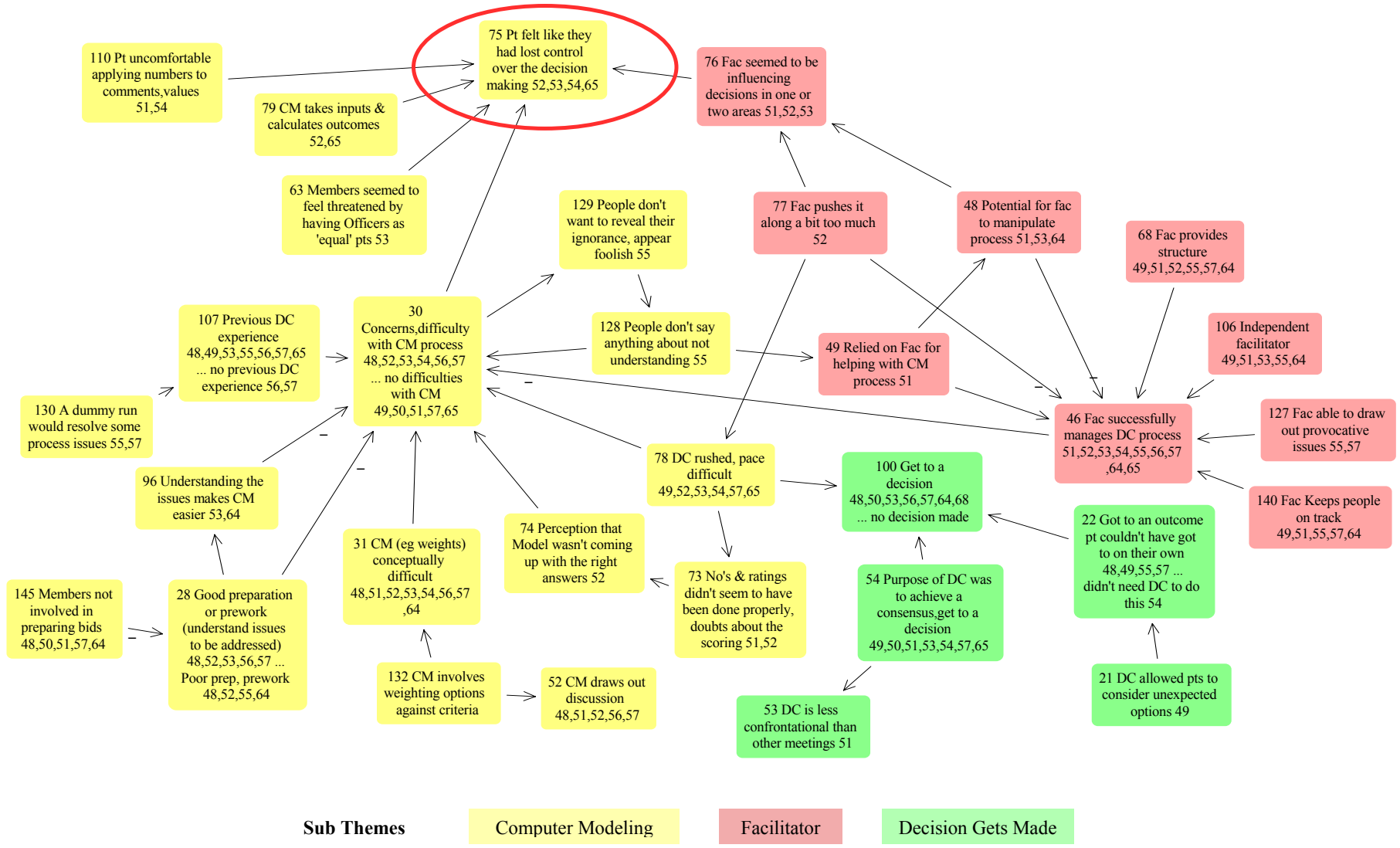
6.3.5.4 Loss of Control over Decision Making

As with Exclusivity, this final cluster was again linked to the issue of loss of control over decision making, but here the focus was on the role of the facilitator as well as the impact of perceived difficulties with the computer modeling (including the impact of the quality of the preparatory work). It is important to point out that while this was a significant theme and was ultimately linked to commitment, the positive elements of belonging to a team, trust in the facilitator, and the fact that a crucial issue was resolved seemed to over-ride the negatives. Figure 6-19 presents the 32 concepts that make up this cluster with the following three sub-themes and associated colour coding:

- Computing Modeling (16 concepts) - yellow
- The Role of the Facilitator (9 concepts) – pink
- Decision gets Made (5 concepts) – pale green

Each of these sub-themes will be discussed further, however it is important to first consider the implications of participants feeling that they lost some degree of control over the decision making process (#75, circled in red).

Figure 6-19 Loss of Control over Decision Making



Using Decision Explorer ™ to explore the consequences of a perceived loss of control shows that it has a negative impact on both commitment (#115) and the likelihood of implementation (#5). The 20 different chains or paths of consequences from a perceived loss of control over decision making (#75) are presented in Figure 6-20. Note that many of the links presented in this map are positive, however analysing the consequences of this concept reveals that the opposite of the positive pole would eventuate. For example, one of the paths highlighted by the *Analyse Consequences* command emerges as follows:

+75 Pt felt like they had lost control over the decision making 52,53,54,65
may lead to
-12 ... not confident about process integrity 52,53
which can lead to
-4 ... Not best bet 51,52,53,64
which can lead to
-5 ... not committed to outcome 48,51,53,64,65
which can lead to
-7 ... [not] Would defend outcome outside DC 50,52,53,55,57
which can lead to
-13 ... [not] Gain Council support for DC outcome 49,57,65
which can lead to
-14 ... [not] Outcome endorsed by Full Council 48,49,55,56,57,65
which can lead to
-15 ... unlikely to implement 51,52,53,56,64

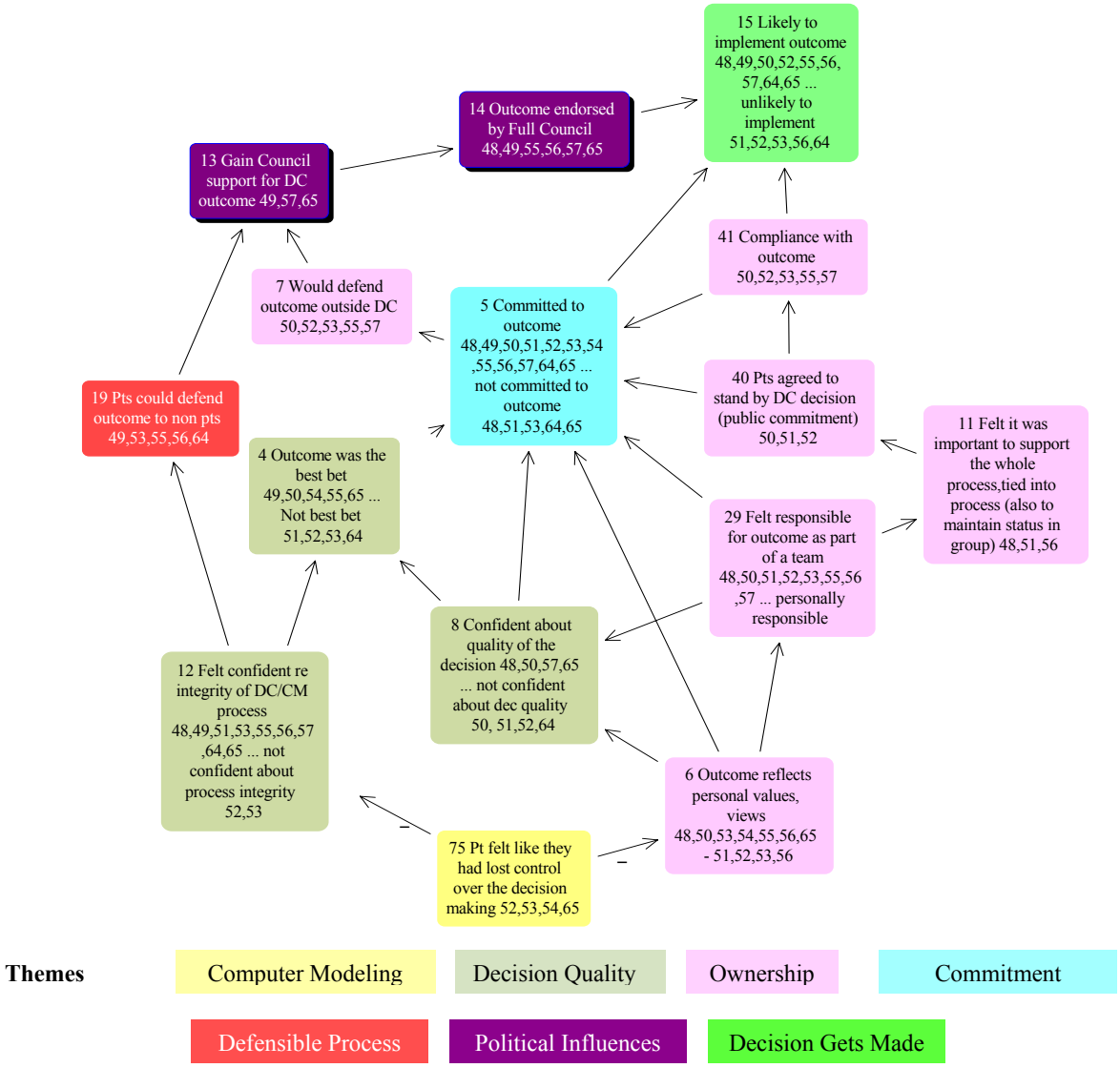
This may be read as follows: where participant's felt like they had lost control over the decision making (#75), this was seen as decreasing confidence regarding the integrity of the process (#12), leading to concern that the chosen outcome may not have been the best bet (#4), thereby reducing commitment to the outcome (#5). In turn, this reduced commitment was seen as decreasing the likelihood of participants defending the outcome outside the Decision Conference (#7), thus impacting negatively on the potential to gain full Council support of the Decision Conference outcome (#13, #14), which was then potentially seen as reducing the likelihood of implementation (#15).

Losing control over the decision making (#75) was also seen as potentially having a negative impact on four of the participants' belief that the outcome reflected their personal values and views (#6), diminishing personal responsibility (#29) and ownership of the outcome (#11, #40, #41). Again this was seen as impacting negatively on commitment (#5), defense of the outcome to outsiders (#7) and

ultimately the likelihood of implementation (#15). Another perceived impact of feeling that the outcome did not reflect participants views (#6) was reduced confidence in four of the participants' regarding the decision quality (#8), again ultimately leading to a reduction in commitment (#5) and decrease in the perceived likelihood of implementation (#15).

The other paths captured in this analysis were smaller variations on the above. An example would include an identical path to the first one outlined, except it included a direct link from commitment (#5) to likelihood of implementation (#15) rather than one mediated through the possibility of gaining Full Council support (#7,#13,#14). All of these variations are presented in Figure 6-20.

Figure 6-20 Perceived Consequences of Concept # 75 Loss of Control over Decision Making



The loss of control was also linked to people being accustomed to a different style of decision making where they could more clearly influence the outcomes. Here the Decision Conference process was seen as removing that advantage, i.e.:

> So one or two us I think were always feeling there must be a way of cracking this, making it work for us but didn't quite have the skills… to manipulate the system in order to produce the result. You see if you are used to manipulating words and emotions, then you are frustrated that you can't do it if it's figures, you know? N054 P24

Similar to the issues raised in Case 1, the argument here was also that perhaps the process wasn't able to capture the subtleties and nuances of their usual approaches to decision making.

It is worth noting that while not all participants felt that they had lost control over the decision making, the emergence of this issue as a sub-theme illustrates the benefits of ensuring that people feel in control at all times as all of the participants highlighted these negative effects as a potential consequence.

6.3.5.4.1 Computer Modeling

The preceding discussion focused on the potentially negative impact of a perceived loss of control over the decision-making process (#17). There were two broad drivers to this loss of control i.e. concerns or difficulties with the computer modeling process (#30) and negative influences related to facilitation of the process (#76). This section explores the issues surrounding computer modeling in terms of perceived problems and difficulties, but also addresses the many benefits that participants raised concerning the use of computer modeling in the Decision Conference process.

Difficulties with the computer modeling process

One of the perceived problems specified by eight of the twelve participants interviewed was the conceptually difficult task of weighting the various options (#31). Where participants experienced difficulties in utilizing the computer modeling process, the modeling became a mysterious and somewhat unpredictable

'black box', with answers just appearing with no apparent connection to what has taken place, linking back to the earlier discussion regarding loss of control. For example,

> …it's not the computer's fault it's just you lose control. You're in control of the process or your made to feel in control of the process its your decision conference you're here to make decisions and you feel in control of it don't you? So then it leaves you and then comes back again with an answer and I suppose its human nature to think I lost control of that for 5 seconds. N052 P73 Officer

Participants also experienced difficulties when scoring options against criteria and in considering the relationship between scores. Some typical areas of difficulty included:

- Really coming to grips with the various options so it was possible to evaluate against the criteria in the first place (N055 P48 Officer).
- Understanding what the scores for the different options against some of the criteria 'meant'.
- Grappling with the sheer cognitive load of trying to recall the different rates and juggle the relationships between each assessment.

A typical example of the above follows:

> I had a big problem with how the numbers were sorted and rated. You know if you give ten for this do you give twenty for this or thirty for this and fifty for this? And when you compare environment issues with job creation issues ones ten ones fifty. …I did find it very hard to believe that we'd rated those relationships well enough. N052 P21 Officer

Other participants believed that one way of alleviating some of these would have been for them to have a better understanding of the whole process before starting e.g.

> … nothing was put to us at the start and the facilitator didn't explain how the whole process would go and how scorings would be handled. He introduced it state by stage.
>
> Now in a sense that was the right way to get understanding because to explain the whole process at the start it would just sound like mumbo jumbo. But as we reach successive phases there was frequently a feeling that well if we had known that two hours ago our reactions and scoring would have been different. .N048 P61 Councilor

Weightings across criteria were also problematic:

> It's when the weightings.. were set between different groups, different sections of the list and different weighting across criteria. It was some of the aspects of that which really led many of us to feel that maybe we scored things wrong earlier on. N048 P66 Councilor

> …it takes a bit of time to get your head around some of the relationships I think, how do you score one against another. You're finding a base point, and from that everything then is compared against that and um... that's not always easy … So I think it was that looking back all the time and comparing that seemed to be the issue I found difficult. N055 P48-49 Officer

Alleviating difficulties

It was suggested by participants that some of these problems could be alleviated if they had, had previous Decision Conference experience (#107) or perhaps by conducting a 'dummy run' (#130).

Participants' confidence in the computer modeling was seen as being potentially enhanced through the investment of time and effort by participants in preparing for the Decision Conference. This issue was raised specifically by seven of the participants as an important factor impacting on the Decision Conference experience (#28, #145). Understanding the issues meant people could make more valuable contributions thus making the computer modeling easier (#96). As one participant observed:

> …it's not always easy to contribute to those areas that other chief officers and members are responsible for. N055 P48 Officer

Some of the issues related to pre-work and preparation (#28) included:

- Being aware of the importance and the sheer amount of work that needs to be accomplished beforehand if the group is to be able to make informed decisions e.g.:

> I think essentially the big weakness is that we under estimate the amount of preparation that needs to be done and we over estimate the importance of the decision at the end you know we don't question it enough… N052 P103 Officer

> One weakness that we did find - but it's not a weakness of the model, it's a weakness of the process - is that unless you have your bids really

> very well worked out, detailed costed and argued it shouldn't be in there, you can't do it.... (preparation is) absolutely vital. It's as important as the actual process. The process is as good as the weakest link and that was proved to be the weak link. N053 P124 Officer

- The value of having a process in place to ensure that this work is done.

> We need to do a lot more on examining the bids within the organisation ..and maybe filtering out some as well. …I think so yes what we need, there are clear rules for the Conference. What we need now is very clear pre-Conference rules… a time scale for preparation…There was in fact plenty of time to do more preparation but it still ended up drifting and being rushed. N048, P138, P142, P144 Councilor

- Prework should cover process and content.

> … perhaps on the pre-meeting issues should be not just looking at the processes involved in decision conferencing but the information the facts that they needed, we could have done more there. N052, P13 Officer

6.3.5.4.2 A Decision Gets Made

A final small sub-theme in this cluster related to the fact that a decision was seen to be made. While initially it may seem out of place within this cluster 'Loss of control over decision making', getting to a decision was seen as being linked to some of these more negative factors i.e. being pushed at a sometimes uncomfortable pace, and using a very structured somewhat unfamiliar approach to the decision making. The process was seen as allowing participants to consider unexpected options (#21) and to get to an outcome they couldn't have reached on their own (#22). The process got the participants to a decision (#54, #100) and this was seen as a definite benefit by at least eight of those interviewed.

> I think making people work within a defined framework would be my prime advertisement for the process. Doing something, which I don't think we could have achieved within the time scale without that process. N056, P95 Officer

6.3.5.4.3 The Role of the Facilitator

Figure 6-21 (over) presents the second sub-theme in this cluster – the Role of the Facilitator. The use of an independent facilitator (#106) plays a crucial role in this Decision Conference in that the majority of participants (9/12) saw him as being the key factor in the successful management of the process (#46). The facilitator was perceived as keeping people on track (#140), providing structure (#68), enhancing discussion (#127, #34) and enhancing people's confidence in the integrity of the process (#12).

In the previous section, the implications of the cognitive load on perceived control over decision making was raised. The facilitator plays a role here in potentially alleviating the problems associated with this load:

> ..(the facilitator) was very good on that (helping with the ratings) because what he'd tend to do to start with he'd get you weighing up things that had some connection and then he started broadening it out and before you knew where you are, you know, you were evaluating a new computer system against buying a piece of community woodland and that was quite well done I thought. N056 P19 Officer

The facilitator was also seen as ensuring that in the end no major mistakes would be made, despite some of the difficulties associated with the computer modeling e.g.

> …I think inevitably that there was a bit of holding back there, not wanting to show their ignorance because of the tight time scale we had, but…I think (the facilitator's) presence ensured that there were no real mistakes, shall I say, I think he was there to look after the slower thinkers. N055 P55 Officer

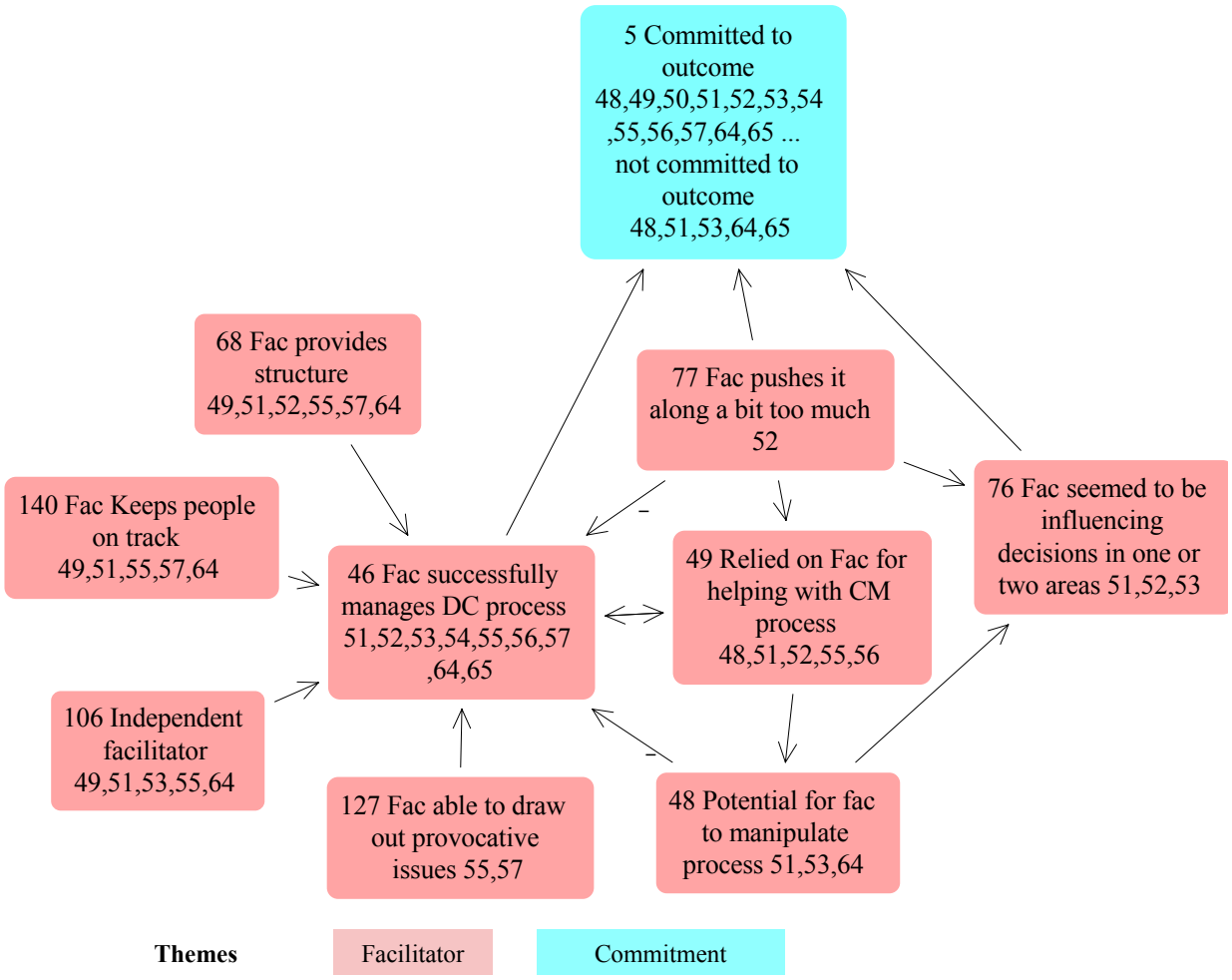
Successfully managing the process (#46) was critical in that this ultimately impacted on participants' commitment to the outcome (#5).

Where people were unsure about the process they tended to rely more heavily on the facilitator. The following participant is discussing the use of sensitivity analysis and his uncertainty regarding this stage of the process:

> …it was less structured than the rest of it and I don't know about any one else but I felt more reliant on the facilitator because to actually do that you've got to have a knowledge of how the process works um so whilst you can make suggestions. I don't think I felt as in control... N056 P101 Officer

Using the Collapse function in Decision Explorer™ it is also possible to see the links to commitment that wouldn't otherwise be evident in this cluster. Once again it is important to note that the Collapse function demonstrates whether a link between specified concepts exists, however in doing so the command screens out mediating concepts.

Figure 6-21 The Role of the Facilitator (Collapsed View)



The map shows that the majority of participants (nine) felt that the facilitator successfully managed the Decision Conference process (#46), although there was some concern that the facilitator might have manipulated the process (#76, #77) or had the potential to do so (#48, #49). A perceived lack of process transparency impacted on the level of trust here. For example, one Officer thought the process

was ‘up on stilts’ and then seemed to hear that the politicians could veto or change the outcome if required (#48):

> There was one stage that rattled me…(the facilitator) saying “Well we scored this one as the base line - is that what you expected it to come out as because if not we'll have to fiddle it”. .And...(another question) from one of the participants, “Where will the politicians get their ultimate veto, where does that come in? Because if this is coming up in that order and we don't think politically that's good or we could live with it, how do we manufacture (the answer)? How do we manipulate the way the thing operates?”... And at that point I was a bit bothered and so were some of the other participants who were taking it all very much at face value…I think from that point on (some people) didn't trust it. N053 P27 Officer

6.3.6 Comparison of Composite Map Themes with Individual Maps

The preceding discussion of themes was based on analysis of the composite map. An additional analysis to verify the trustworthiness of these findings was conducted. This analysis compared the themes that surfaced from the individual maps to the four principal themes that emerged from the composite map.

From the individual maps a total of 10 themes came to light. Table 6-7 below presents these and shows how they were encompassed in the final composite map.

Table 6-7 Comparison of Individual & Composite Map Themes

Where Relevant Concepts emerged in Composite Map	**Themes Encompassed in Individual Maps**	**Identified as a theme (cluster) or significant sub-theme in the following Participant maps**
C1 Commitment	Commitment	All interviews
C1 Commitment	Decision Quality	49,50,51,52,54,55,56,64
C3 Exclusivity	Power, Exclusion	49,51,54,56,57,64,65
C4 Control over Decision Making C1 Commitment	Preparation (C4), Criteria (C1)	50,54,55,65 49,50,54,55,64,65
C1 Commitment	Relief, Solution	54
C4 Control over Decision Making	Computer Modeling (Problems)	54,55,56
C1 Commitment C2 Implementation	Compliance	50,52,53,56,57

Where Relevant Concepts emerged in Composite Map	Themes Encompassed in Individual Maps	Identified as a theme (cluster) or significant sub-theme in the following Participant maps
C4 Control over Decision Making	Facilitation	51,54,55,56,57,64,65
C1 Commitment	Feasibility	64
C1 Commitment	Shared Understanding	49,51,52,53,57

Even if one of the principal themes did not emerge as a cluster within an interview this did not mean that the participant didn't raise that particular issue. The cluster analysis is based on the similarity of links between concepts (Jones 1994). Where an individual's map was strongly interlinked, there was less likelihood of clearly separate clusters emerging through the CLUSTER command.

However what can be seen in this table is that overall the composite map captured all of the key issues arising from the analysis of the individual maps. As such it is argued that the overall composite map may be regarded as representative of the group as a whole.

6.3.7 Potent Concepts Within the Composite Map

While the preceding discussion has explored the overall story told by participants in the Case 2 DC Decision Conference and presented the principal themes to emerge, it is also possible to analyse the map to discern those concepts that impacted throughout the Decision Conference experience.

To explore some of these possible *potent* or more powerful concepts within the map, a set containing the three head or 'goal' concepts was created and then analysed using the *Hieset* and *Potent* command. This identified the concepts that appear in the most sets, that is, those that evidenced the most 'potency' within the model (Jones 1994).

The Hieset and Potent analysis of the goal concepts produced 5 Hiesets with the following three concepts appearing in all 5 i.e. being the most potent concepts in the model:

- Decision Conferencing is a structured, rational means of decision making (#80).

- Each of the Council Committees should have been able to put together a list covering all areas of the Council's decision making – not just regarding their own area of jurisdiction (#176).
- Committee Chairs (Members) were fighting for their own areas during the Decision Conference (#182).

The fact that Decision Conference was seen as a structured rational means of decision making was central to the Case 2 DC Decision Conference experience. However, what we can also take from this analysis is that limiting Members' input to their own areas of expertise and the ensuing propensity for Members to fight for their own corners had far reaching and potentially damaging effects on this particular Decision Conference process.

For example, the immediate effect of the Committee Chairs fighting for their own areas was a negative impact on the development of a shared understanding (#1) as well as a decreased likelihood of gaining wider involvement and ownership of the process and outcomes in the Council (#178).

This suggests it is not enough to ensure that the two-day Decision Conference process alone is structured and rational. Wider consideration needs to be given to who participates and their role in this if commitment and likelihood of implementation is to be achieved.

6. 4 Addressing the Research Questions

The central question in this study is

> To what extent is the modeling process perceived by participants as leading to the development of a shared understanding and commitment to action in the application of Decision Conferencing to strategic issues?

This section examines each of the sub questions raised here and what the findings of the Case 2 DC case study reveal in relation to those questions.

Note that as the concepts identified in this section have all been discussed previously in relation to the various principal themes, they have not been dealt with in detail

here. The focus is on addressing the research question and identifying the relationships rather than exploring each concept at length.

6.4.1 Computer Modeling & Shared Understanding

From this central question, the first two research sub-questions concern the perceived relationship between the computer modeling process and shared understanding i.e.

Research Question 1.1	Is the Modeling process perceived by participants as generating a Shared Understanding of the issue(s) to be addressed?
Research Question 1.2	What is the perceived relationship between the key aspects of the modeling process and the development of a Shared Understanding?

These interrelated questions were directly addressed by tracing the paths between the two key computer modeling- related concepts:

- Decision Conferencing is a structured, rational means of decision making (#80);
- Concerns and/or difficulties with the computer modeling process (#30);

and shared understanding, as represented by concept #1 i.e.

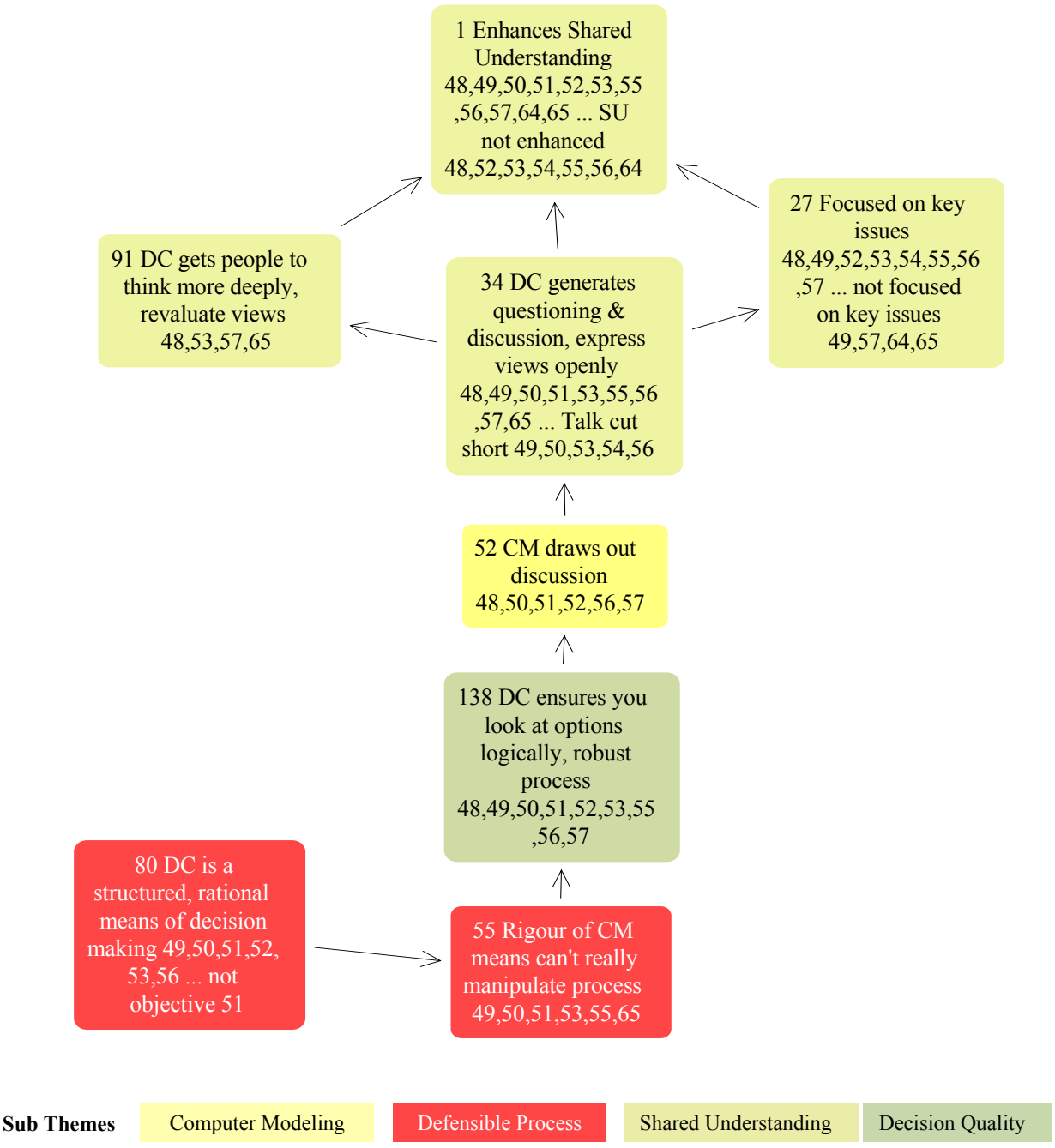
- Enhanced level of shared understanding (#1).

An initial examination of concept #1 (shared understanding) in the cognitive map in Figure 6-22 shows that the answer to the first question is not a simple one. Whilst the majority of responses show support for the efficacy of modeling in promoting shared understanding, a substantial number of responses indicate the opposite perceptions. Furthermore, six responses register in both the positive and negative poles of this concept, i.e. responses 48,52,53,55,56 and 64 – a finding which may be interpreted as ambivalence on the part of these interviewees about the extent of their shared understanding as generated by the modeling process.

To throw some light on how these findings may be explained, a closer examination of the possible relationship between modeling and shared understanding was undertaken. To do this Path analysis was conducted first regarding possible routes from concept #80 *(Decision Conferencing is a structured, rational means of decision making),* to concept #1(*shared understanding),* then from concept #30 *(Concerns and/or difficulties with the computer modeling process)* to concept #1*(shared understanding)*.

Figure 6-22 also shows there are three paths or routes that can be traced from the perception of Decision Conferencing as a structured, rational means of decision making (#80) and the development of a shared understanding within the group (#1).

Figure 6-22 Computer Modeling & Shared Understanding (1)



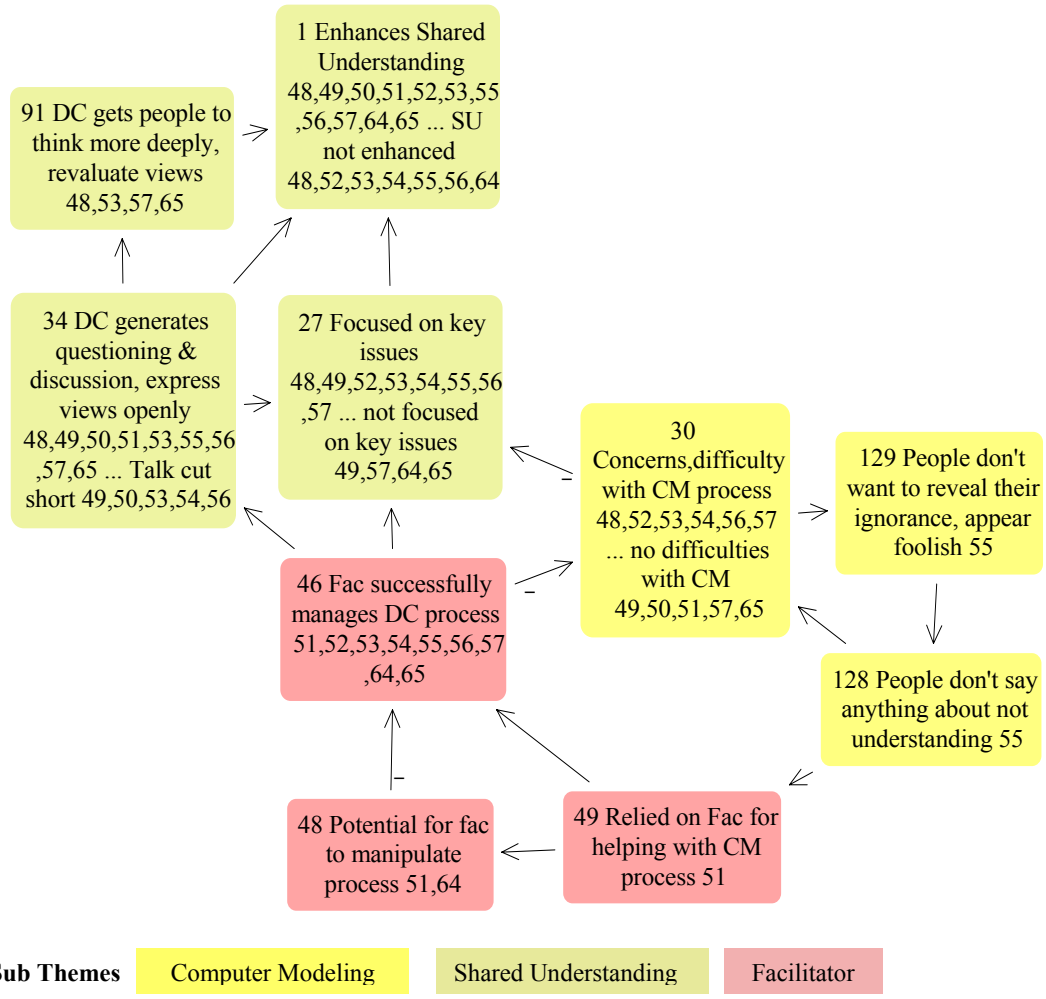
The first route indicates that six participants felt that the use of the very structured decision modeling approach (#80) in the Case 2 DC Decision Conference meant that it wasn't really possible to manipulate the process (#55). Nine of the twelve participants interviewed saw this as ensuring that options were looked at logically (#138), thus facilitating discussion (#52, #34). The majority of participants (9/12) also felt that this in turn generated open discussion and debate, (#34) although some ambivalence is again shown in responses N049, N050, N053 and N056 which register in both the positive and negative poles. This was then seen by 11 participants as leading to the development of a shared understanding amongst group members (#1). Concept #34 – the generation of questioning and discussion and the open expression of views - is clearly a critical node for the development of a shared understanding and is explored further in the remaining two routes.

The second route follows on from #34*, DC generates discussion* and draws in an additional concept (#27), which relates to whether or not the content of the discussion focused on key issues. That is, discussion was also seen here potentially enhancing shared understanding (#1), but in this route, it was seen as doing so by enabling a better focus on the key issues (#27).

The third route, again follows the path to #34, *DC generates discussion*, but adds an additional factor (#91) for four of the participants. As the computer modeling generated questioning and discussion (#34), it led these people to think more deeply about the issues and possibly re-evaluate their views (#91). In one instance (N053), this was true even when it was felt that talk had been cut short. In all four cases this was seen as enhancing shared understanding (#1).

As indicated, in exploring the relationship between computer modeling and shared understanding, the other important concept to track through was that relating to participants' concerns or difficulties with the computer modeling experience (#30). A path analysis indicated 9 routes linking these concepts. These are illustrated in Figure 6-23 (over).

Figure 6-23 Computer Modeling & Shared Understanding (2)



Also evident here is the positive feedback loop or 'vicious cycle' (Eden & Ackermann 1998: 411) created by the interactions of concepts #30, #129 and #128 where people experience difficulty with the process (#30), but don't want to reveal their ignorance (#129). Consequently they remain quiet (#128), which potentially lead to more problems, less inclination to appear foolish and so on, continuing around the loop and impacting negatively on the capacity to focus on the key issues, i.e. concept #27. Only one participant directly raised this point, but it illustrates that any problems with the computer modeling can impact both on shared understanding and ultimately commitment and emphasizes the importance of the facilitation in breaking this cycle (#49).

In summary, it would appear from participants' perceptions in this case study, that the structure and rigour of the computer modeling in Decision Conferencing has the capacity to generate a shared understanding of the issues under discussion. Its perceived success was mediated by the extent to which discussion, questioning and the open expression of views were facilitated and key issues addressed.

6.4.2 Computer Modeling & Commitment to Action

The next two research questions concerned the perceived relationship between the computer modeling process and the development of commitment to action i.e.

Research Question 2.1	Is the Modeling process perceived by participants as generating a Commitment to Action?
Research Question 2.2	What is the perceived relationship between the key aspects of the modeling process and the development of Commitment to Action?

These questions were again directly addressed by tracing the paths between the two key computer-modeling related concepts:

- Concerns and/or difficulties with the computer modeling process (#30)
- Decision Conferencing is a structured, rational means of decision making (#80)

and Commitment i.e.

- Committed to outcome (#5)

Following is an exploration of the links between the two concepts related to computer modeling and the central concept of commitment.

A) The Link between Computer Modeling (as represented by #30) and Commitment (#5)

As indicated, in this analysis computer modeling is primarily represented by two concepts. This section explores the first concept identified i.e. #30 *Concerns and/or difficulties with the computer modeling process.*

Path analysis revealed 270 possible routes between concerns or difficulties with the computer modeling (#30) and whether or not participants felt committed to the outcome (#5). The consequence of 159 of these paths was a potential reduction in commitment to act on the outcome. However, experiencing difficulties did not

necessarily preclude commitment. There is still a path to commitment, although it requires mediating influences such as successful facilitation. The various approaches are indicated in Figure 6-24 (below).

Figure 6-24 Computer Modeling (as represented by #30) and Commitment (#5)

In partial response to Research Questions 2.1 and 2.2, the path analysis illustrated in Figure 6-24 suggests that participants perceived computer modeling as potentially both a facilitating and a blocking agent in relation to the generation of a commitment to action. For example, participant N053 felt that concern with the process (#30), potentially lead to a perceived loss of control over decision making (#75), with the consequence that the outcome was no longer seen as reflecting personal views (#6). This impacted negatively on the degree of commitment (#5). A closer look at this participant's interview also showed that that the absence of problems with the computer modeling meant that the group could focus on the key issues (#27), thus enhancing shared understanding (#1), resulting in an outcome that reflected the discussion (#88), reflecting personal views (#6), impacting positively on commitment (#5).

The absence of perceived problems in relation to computer modeling (#30) was seen as generating commitment via 11 different paths, however some of these are only minor variations encompassing similar concepts. That is, computer modeling was perceived as generating commitment where:

- Participants experienced few concerns or difficulties with the computer modeling process (#30).
- Participants felt that they maintained control over the decision-making process (#75).
- Successful facilitation of the process occurred (#46,#48,#49,#76) – this included factors associated with this concept as discussed in Section 6.3.4.5.3 (The Role of the Facilitator).
- The modeling helped the group to remain focused on key issues (#27).
- The modeling was used as a means of generating questioning and discussion (#34) and to think more deeply about the issues (#91).

Where the above transpired, interviewees were definite that a greater understanding than they had before had been developed (#1), with participants feeling that the modeling reflected the discussion that took place (#88, #89), incorporating their personal views and values (#6). Their belief in the integrity of the process was

enhanced (#12), as was their confidence that the outcome was the best bet (#8, #4). In turn, these factors were linked to concepts such as enhanced feelings of personal responsibility (#29) and were more likely to generate either a public commitment to (#11, #40), or in some cases compliance (#41) with, the outcome. The final result of achieving all of this was the potential for a greater degree of commitment (#5) than might otherwise have developed.

The corollary of the above is where these factors didn't occur (e.g. people didn't understand the modeling and didn't feel free to express their lack of understanding), or if the opposite happened in that the outcome was not seen as reflecting personal values or views, then commitment was reduced for many of the participants.

B) The Link between Computer Modeling (as represented by #80) and Commitment (#5)

The second concept that captured the essence of computer modeling was #80 *Decision Conferencing is a structured, rational means of decision making.* Path analysis revealed 86 different routes between these two concepts although once again many of these were only small variations of major pathways. Figure 6-25 illustrates these various routes. In all instances, support emerged for the view that where Decision Conferencing (incorporating computer modeling) was seen as a structured, rational means of decision making, this ultimately had a positive relationship to the development of commitment to action. For example, for participant number N050 the rational approach offered by Decision Conferencing (#80), meant that the process couldn't really be manipulated (#55), thus ensuring options were looked at logically (#138), drawing out discussion (#52, #34), enhancing shared understanding (#1), enhancing leading to confidence in the quality of the decision (#8) and a degree of commitment to the outcome (#5).

Overall, computer modeling was perceived as generating commitment where:

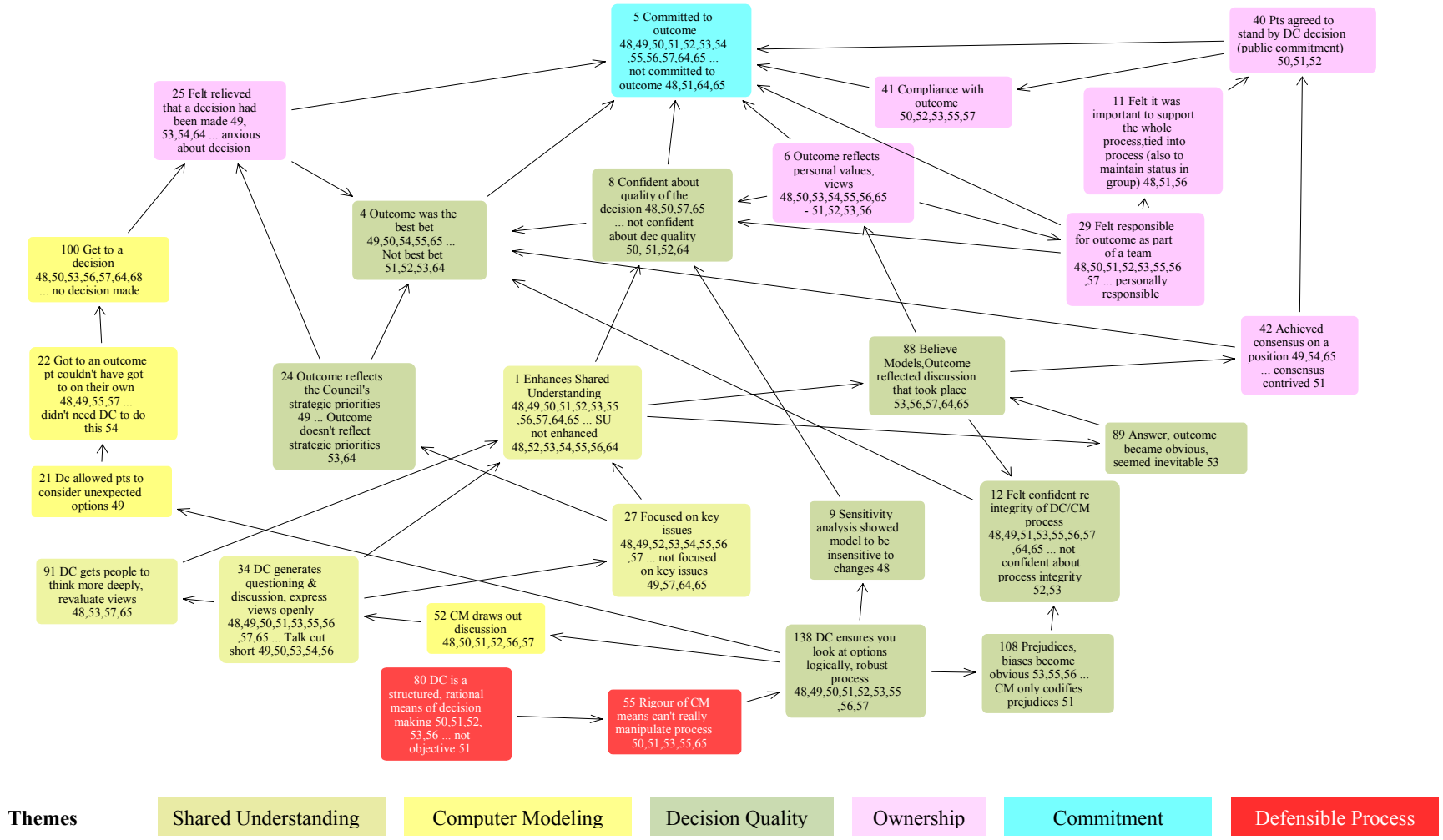
- Rigour of the computer modeling process reduced manipulation of the process (#55).
- The computer modeling ensured that options were looked at logically- - the process was robust (#138, #9).

- The modeling helped the group to remain focused on key issues (#27).
- The modeling was used as a means of generating questioning and discussion (#52, #34) and to think more deeply about the issues (#91).
- The process allowed participants to consider unexpected options (#21) and ultimately to actually get to a decision (#22, #100, #25).

Again, where the above occurred, path analysis revealed links through to the development of a greater degree of shared understanding (#1), with participants feeling that the modeling reflected the discussion that took place (#88, #89), incorporating their personal views and values (#6). Their belief in the integrity of the process was enhanced (#12), as was their confidence that the outcome was the best bet (#8, #4). In turn, these factors were linked to concepts such as enhanced feelings of personal responsibility (#29) and were more likely to generate either a public commitment to (#11, #40), or in some cases compliance (#41) with, the outcome. The final result of achieving all of this was the potential for a greater degree of commitment (#5).

Again, where these factors didn't occur then commitment to act was reduced for many of the participants.

Figure 6-25 Computer Modeling (as represented by #80) and Commitment (#5)



6.4.3 Shared Understanding and Commitment

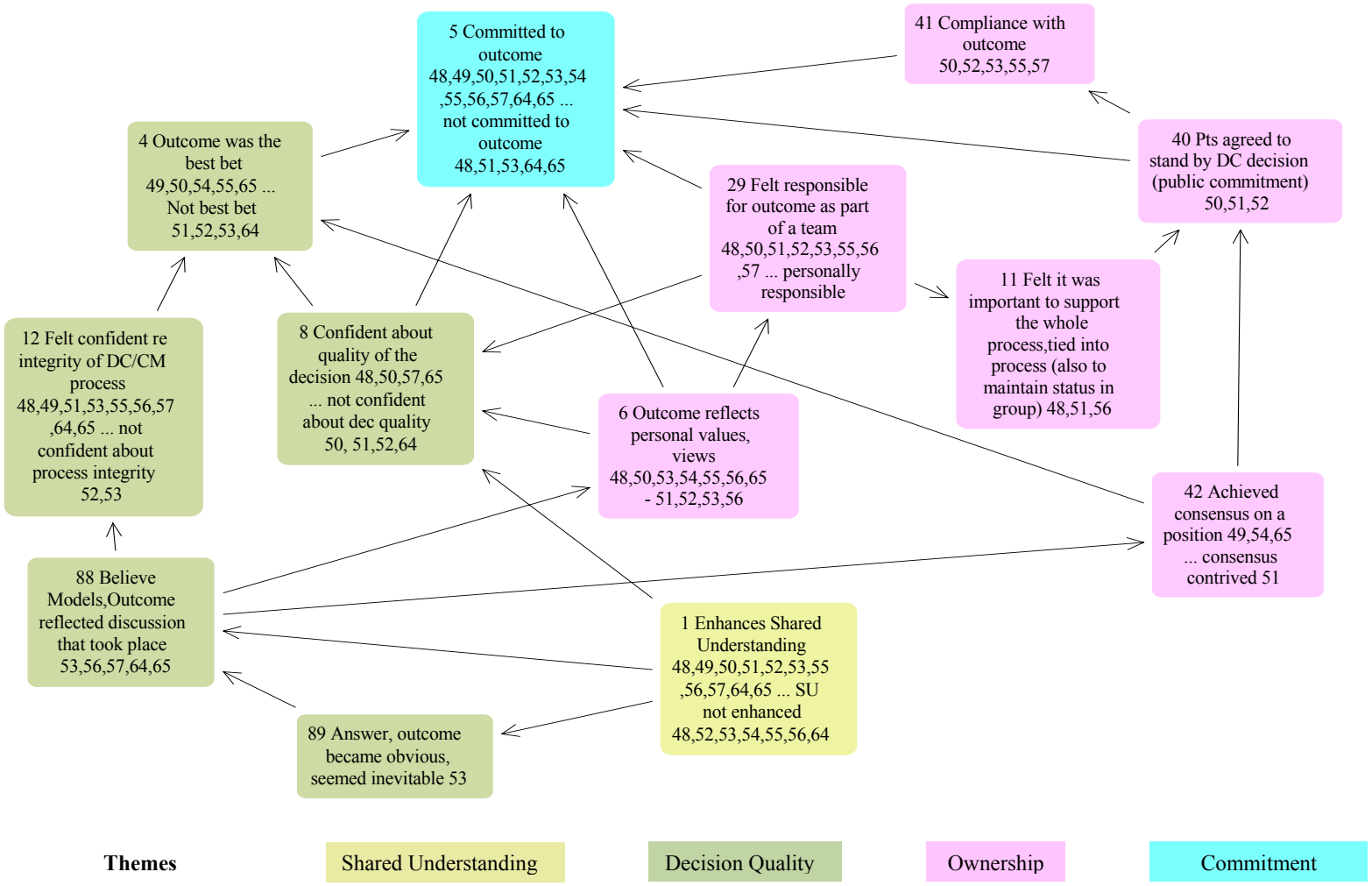
Research Question 2.3 What is the perceived relationship between Shared Understanding and Commitment to Action?

Findings show that the relationship between these two concepts was an indirect one, mediated by a number of other variables. A path analysis examining the connection between Shared Understanding (#1) and Commitment (#5) revealed 26 alternative routes to commitment from the shared understanding concept (#1). Figure 6-26 illustrates these various approaches.

While there are 26 different approaches, essentially the mediating variables can be interpreted as follows: creating a shared understanding amongst Decision Conference participants may lead to a greater commitment to act on the outcome if it:

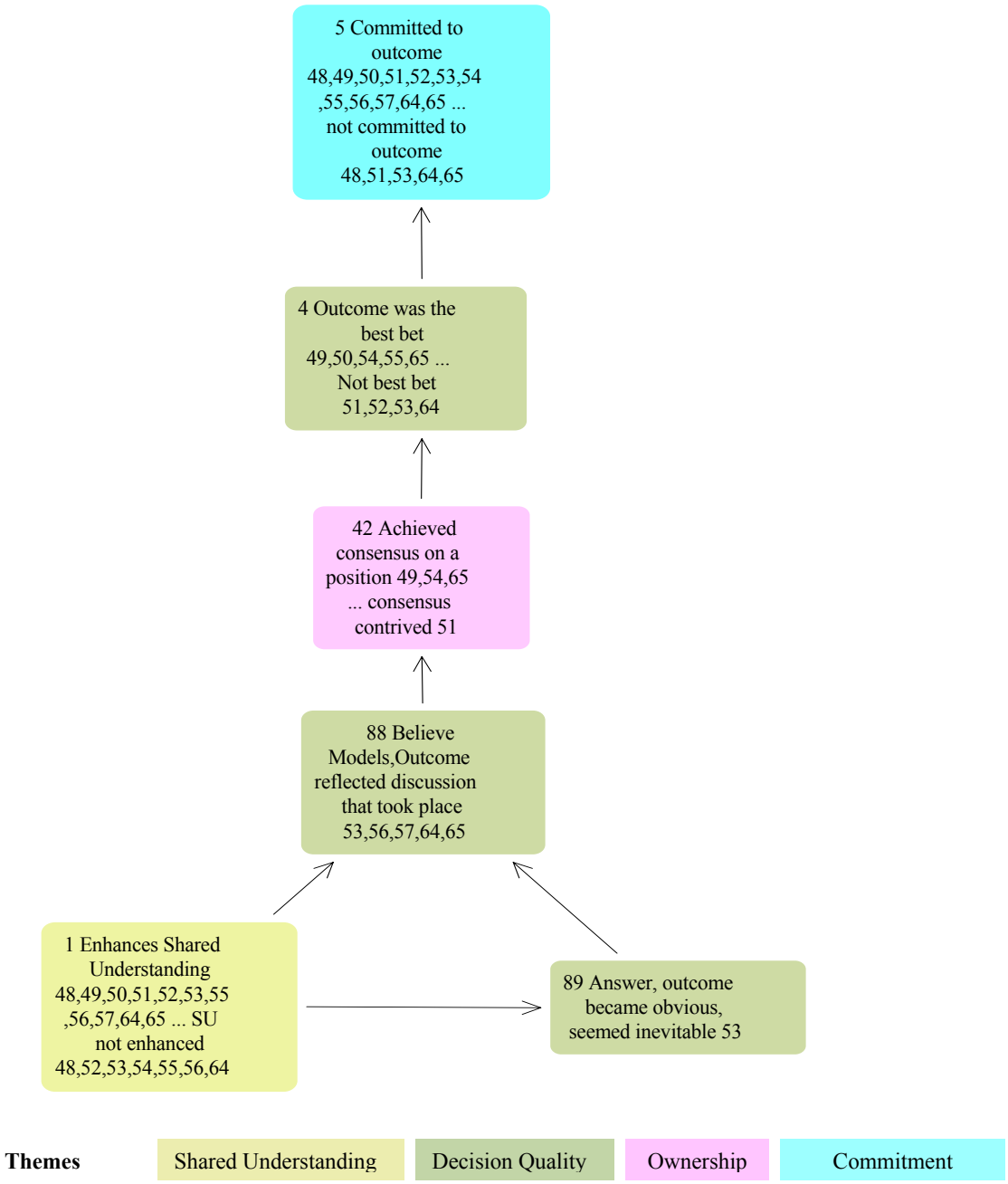
- Increased the likelihood that people felt that their personal values and views had been incorporated into the decision making (#6, #88).
- Resulted in people believing the decision they made was the best bet given the circumstances (#4).
- Raised the confidence of participants in the integrity of the process (#12), which in turn reinforced people's feelings that the chosen outcome was the best bet (#4).
- Developed a feeling of shared responsibility and ownership of the process and its outcomes (#29, #11).
- Helped to achieve a consensus (#42), thus leading to a public commitment to the outcome (#40), enhancing people's feelings of responsibility for the decisions made. This also encompassed the pressure for people to comply with the agreed outcomes (#41).

Figure 6-26 Shared Understanding & Commitment



Three relatively simple diagrams capture 14 of these 26 routes, with the remainder being relatively minor variations of these. Following is a presentation of these primary paths and some elaboration of the connections between shared understanding and commitment. A relatively common path is shown in Figure 6-27 Shared Understanding, Best Bet & Commitment.

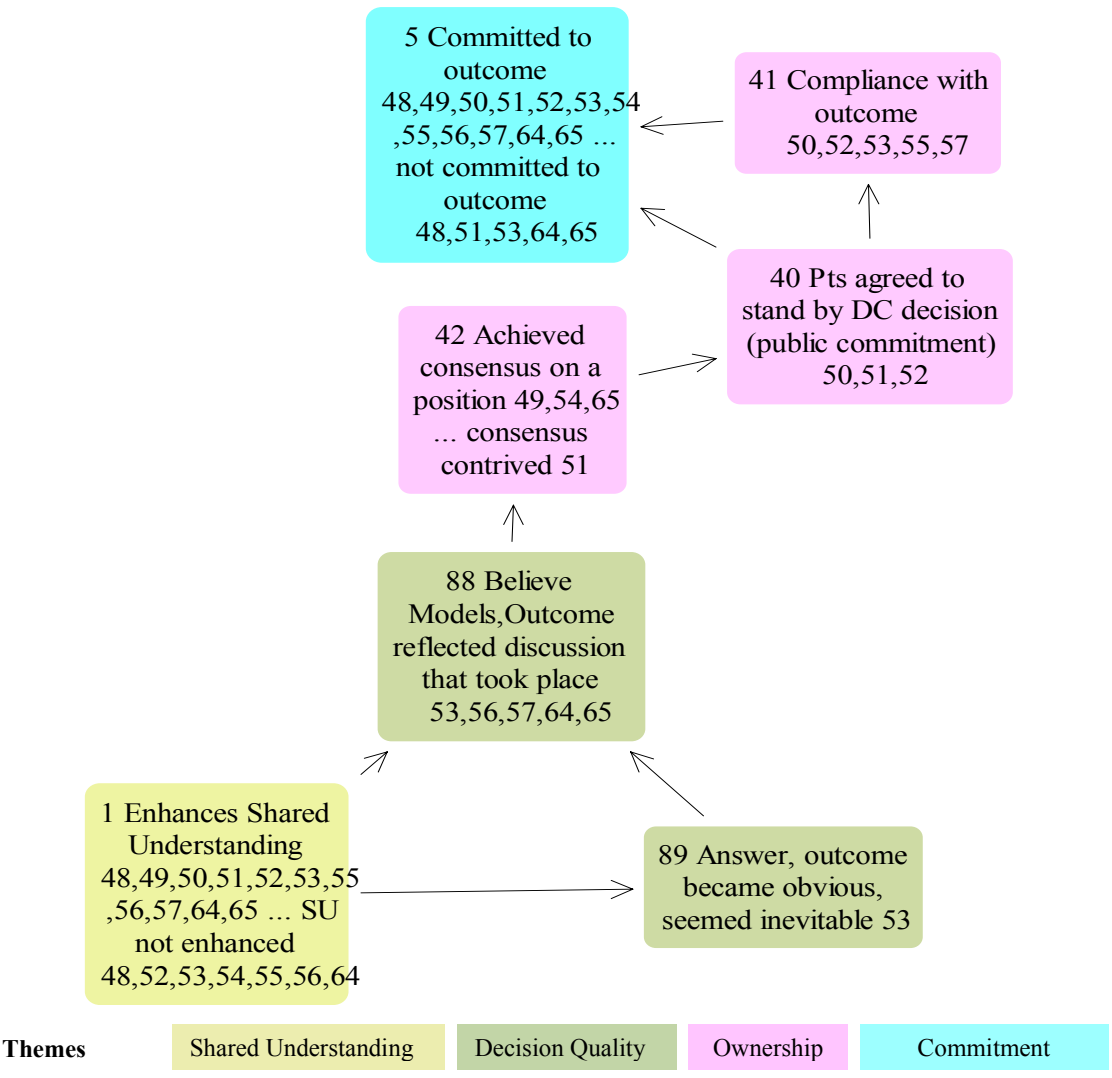
Figure 6-27 Shared Understanding, Best Bet & Commitment



Here we can see that through developing a shared understanding (#1), the answer becomes obvious (#89), indicating that the outcome reflected people's views (#88), leading to a consensus on the position (#42). For some this consensus was an indicator that the outcome was the best bet (#4), a perception that in turn led to participants becoming committed to the outcome (#5)

Represented in Figure 6-28 (below) is an alternative but equally important route, more closely related to the notion of compliance.

Figure 6-28 Shared Understanding, Compliance & Commitment

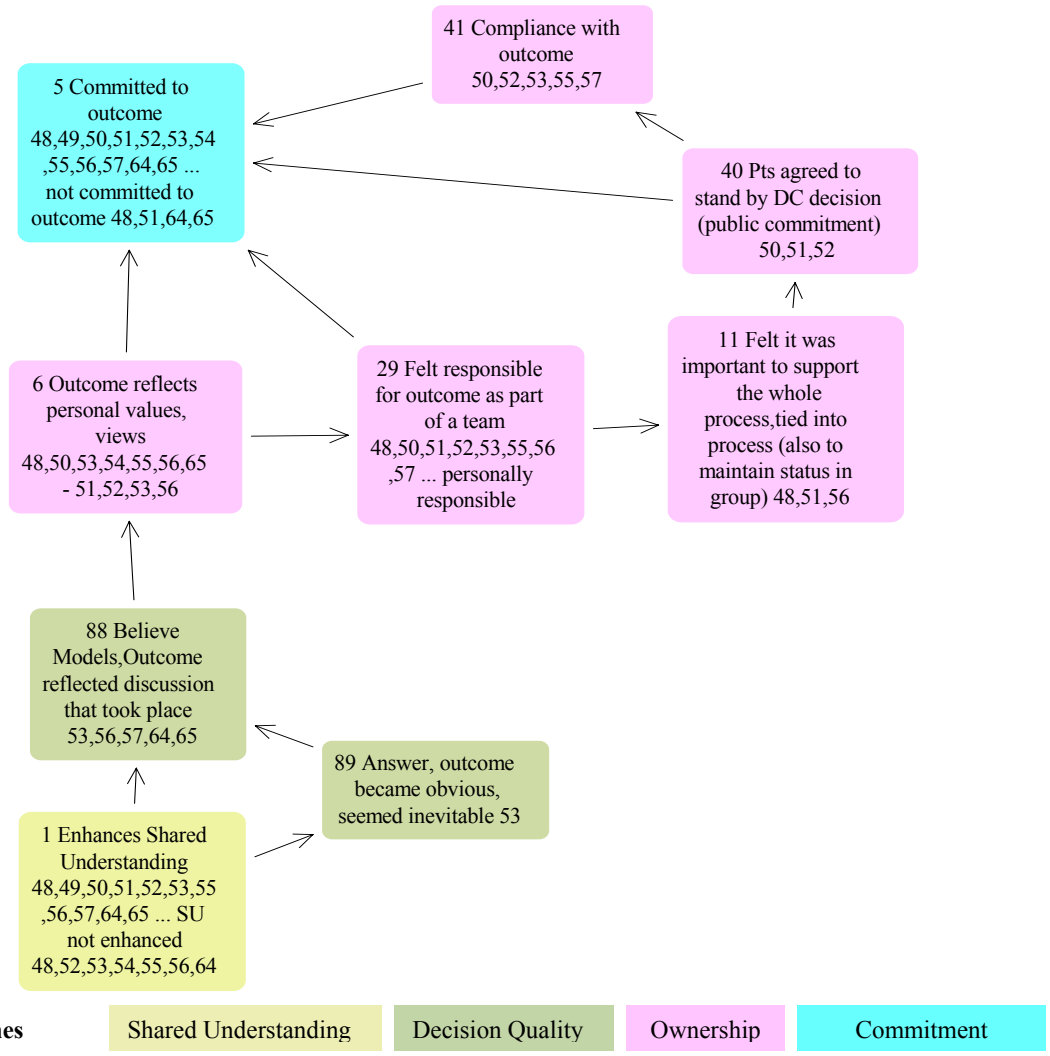


Here an enhanced shared understanding (#1) may lead to the outcome appearing inevitable (#89) and a belief that the model and associated outcome reflected the

discussion that took place (#88). Again, such a shared view was seen as potentially contributing to a consensus on a position (#42). However, here the path diverged from the previous diagram with commitment (#5) emerging as a consequence of participants either agreeing to stand by the outcome (#70), or at least agreeing to comply with the decision made (#41). From the participants' perspective both compliance and public commitment were seen as enhancing overall commitment (#5).

The final set of major routes is illustrated in Figure 6-29 (below) and more specifically encompasses the notion of ownership.

Figure 6-29 Shared Understanding, Ownership and Commitment



While again we see the path from shared understanding (#1) leading to a belief that the models and outcome reflected the workshop discussion (#88), the route to

commitment this time comes via a conviction that the outcome reflects the participant's personal values and views on the subject (#6). This view was seen as either directly linking in with commitment (#5) or alternatively tying in with notions of personal responsibility (#29) and group cohesion (#11). This last concept was again seen as linked to public commitment to the outcome (#40), thus enhancing overall commitment (#5) either directly or as a result of compliance with the outcome (#41).

6. 5 Conclusion

The management team in Case 2 DC commissioned a Decision Conference in order to assist the Council to allocate its budget given a range of competing demands. Some of the participants had previous experience of the Decision Conferencing process and believed that working in this way would draw together the threads of the various service committees in a more coherent manner, enabling them to match the decisions to the authority's corporate objectives.

The formal report prepared by the ESP for this Decision Conference indicated general agreement with the outcomes. On the face of it, this is a conclusion largely supported in this study. However, it is important to note that there was a quite a degree of ambiguity evidenced by a number of participants when this concept of commitment is explored further. Entangled within the notion of commitment were elements such as role commitment, professional duty, obligation and public commitment, degree of responsibility for use of the Decision Conference process and responsibility as part of the decision-making team. Other factors impacting here included the feasibility of the decision and perceived decision quality.

As with the previous case, this was a highly politicised decision-making environment and the Decision Conference process was quite different to their normal decision making approaches. This in itself created issues regarding perceived exclusivity of the process and also impacted on the Council's view regarding the whole Decision Conference process. Despite it being a relatively successful Decision Conference in that an outcome was reached which met their objectives, the impact of the exclusion of non-participants was that the participants were unlikely to use the process again.

The Decision Conference process did not adequately take into account the political environment and power related issues.

Four key themes emerged from the data analysis and were discussed in this chapter i.e.:

- Commitment, incorporating the four sub themes of Decision Quality, Ownership; Shared Understanding and Criteria.
- Likelihood of Implementation, encompassing the sub themes of Feasibility, Pressure to Implement; Defensible Process and Political influences.
- Exclusivity i.e. the perceived exclusivity of the process.
- Loss of Control over Decision Making, incorporating the sub themes of Computer Modeling, the Role of the Facilitator and Gets to a Decision.

As with the previous case, whilst the computer modeling was seen as linked to both shared understanding and commitment, the relationship was heavily mediated by intervening variables. Relationships were not always uni-directional and both commitment and shared understanding were shown in some instances to result from factors other than the modeling process. Similarly, *Commitment* was again shown to be a complex variable with shades of meaning, from "dedication" through to "compliance".

The importance of good preparation was commented on by more than half of the participants, impacting as it did on process factors and content factors, including decision quality. The need to extend the process outside the two days was also highlighted given the need to gain wider involvement and ownership from Council – especially those who did not directly participate in the process.

The degree of control over the decision-making process was an important factor, with key influences being the role of the facilitator and the computer modeling. It is important to point out that while this was a significant theme in this case - and was ultimately linked to commitment - the positive elements of belonging to a team, trust in the facilitator, and the fact that a crucial issue was resolved seemed to over-ride the negatives.

A final important point concerns the critical role of sound discussion and debate, associated as it was with generating meaning, decision quality and ultimately

commitment in its many different guises. Decision quality was primarily about the decision being seen as the best one that could be made under the circumstances, reflecting the Council's strategic priorities and incorporating the comprehensive discussion that had taken place during the workshop. As outlined in the chapter, seeing the outcome as the best bet and feeling confident about the decision quality was then perceived as leading to an enhanced commitment to the outcome.

The findings from this case emphasize the importance of both the computer modeling and the facilitator's role in Decision Conferencing since many of the above factors were heavily driven by both of these elements.

The issues are discussed further in Chapter Seven: Discussion and Implications.

7 CHAPTER SEVEN: DISCUSSION AND IMPLICATIONS

7. 1 Introduction

With the exception of the recent work by de Reuck et al (e.g. de Reuck, Schmidenberg & Klass 2003), the Decision Conferencing literature maintains that the two key benefits arising from the Decision Conferencing experience are that:

a) participants develop a shared understanding of the issue they are facing and
b) the Decision Conferencing process fosters the generation of a commitment to act on the decision made.

The review of the literature in Chapter Two accentuated the point that whilst this assumption forms the basic justification for Decision Conferencing, there is no direct empirical evidence to support this claim. The fact that practitioners continue to apply the Decision Conferencing process – albeit in slightly different forms – to critical organisation issues further highlights the value of this study.

The focus of the proposed research was to partially address this gap and explore this relationship from the participants' perspective. As a consequence, the major purpose of this study was to explore the following question:

> ***To what extent is the modeling process perceived by participants as leading to the development of a shared understanding and commitment to action in the application of Decision Conferencing?***

As indicated in the introductory chapter, this led to the following sub-questions regarding the Decision Conferencing process:

V. The Modeling Process and Shared Understanding from a participant's perspective

   A. Is the Modeling process perceived by participants as generating a Shared Understanding of the issue(s) to be addressed?

   B. What is the perceived relationship between the key aspects of the modeling process and the development of a Shared Understanding?

VI. The Modeling Process and Commitment to Action from a participant perspective

A. Is the Modeling process perceived by participants as generating a Commitment to Action?

B. What is the perceived relationship between the key aspects of the modeling process and the development of Commitment to Action?

C. What is the perceived relationship between Shared Understanding and Commitment to Action?

Due to the paucity of empirical research concerning these issues, a mixed method study was undertaken, utilising both qualitative and quantitative data to explore the issues raised in the research questions. The primary focus was on the use of qualitative research methods due to the need to develop a deeper understanding of the Decision Conference process, particularly in relationship to the interconnections as outlined in the research questions.

In addressing the research questions and the implications of the study outcomes, this chapter first turns to a discussion of the conclusions relating to the quantitative data (Chapter Four) and to each of the qualitative cases (Chapters Five and Six). This is followed by a comparison of the case findings and of the qualitative and the quantitative data.

The conceptual ramifications of the conclusions drawn are then discussed, including the presentation of the suggested *Revised Model for Decision Conferencing*. This is followed by a discussion of the implications of the findings for the practice of Decision Conferencing.

7. 2 Conclusions: Quantitative Data Analysis

In Chapter Four: Analysis of the Quantitative Data, responses from 68 participants across six Decision Conferences were analyzed to determine the perceived degree of success of the workshops, with a focus on the central Decision Conferencing concepts of computer modeling, shared understanding and commitment to action.

The analysis supports the basic hypothesis of Decision Conference theorists, i.e. that both shared understanding and commitment can be achieved through the Decision Conferencing process. Further, a significant positive correlation exists between both computer modeling and shared understanding, and between shared understanding and commitment.

The results also indicate that the measures 'commitment to choice' and 'goal commitment' are both valid and highly reliable measures of commitment.

However, while it is possible to achieve shared understanding and commitment during the Decision Conference there was a great deal of variation concerning the degree to which this was achieved both within and across the various workshops. Furthermore, while the correlations between the central concepts are strong, the proportion of unexplained variation remained at over sixty percent, indicating that other factors are involved as became evident in the qualitative findings e.g. where at times the degree of commitment had nothing at all to do with the computer modeling.

A comparison with the findings from the qualitative Case studies, demonstrates that simple scale response questions based on the traditional model of the Decision Conferencing process do not appear to adequately capture the complexity of participants' perceptions regarding the Decision Conferencing experience. This is despite the validity and reliability of the measures used.

7. 3 Conclusions: Qualitative Data Analysis - Case 1 MBC

In Chapter 5: Qualitative Date Analysis Case 1 MBC, the findings suggest that whilst the process of computer modeling in Decision Conferencing can result in both shared understanding and commitment to act on the decision outcomes, the relationship between modeling, shared understanding and commitment is more complex than the Decision Conferencing literature would indicate. The data in this case study indicates that this complexity results from the interaction of three important sets of factors i.e.:

1. The relationship is not necessarily a linear uni-directional one, moving from the modeling process to shared understanding and then to commitment. For example, shared understanding was not a prerequisite for the generation of a feeling of commitment to act on the outcomes of the workshop (e.g. Figure 5-13 and Figure 5-14 from Chapter Five). Conversely, it was possible to develop a shared understanding of the issues yet not to achieve a commitment to act on the outcomes (e.g. Figure 5-13). Some of these participants felt they had a good understanding of the issues and others' views but in spite of this did not feel that the correct decision had been made, or felt that the decision was irrelevant because

they would have complied with whatever emerged. They did not express commitment or were ambivalent regarding their commitment to the outcome.

2. Where a link can be traced between the modeling process and shared understanding on the one hand and the modeling process and commitment on the other, critical intervening variables mediate the relationship. An overview of each of these follows.

   For the computer modeling – shared understanding link, chief amongst these are:

   a. Provision of a rational framework ensuring that options are looked at logically and interrelationships made evident (e.g. #84, #55, #57).

   b. Open discussion and debate (e.g. #7, #23), focusing on key concerns (e.g.#118); and encouragement of a different way of thinking and a means of challenging entrenched views (e.g. #70, #63, #18).

   It would appear from participants' perceptions in this case study, that the structure and rigour of the computer modeling in Decision Conferencing has the capacity to generate a shared understanding of the issues under discussion. Its perceived success is mediated by the extent to which discussion, questioning and the open expression of views are either explored or cut short due to time constraints. Much of this is driven by the quality of the facilitation of the Workshop.

   For the computer modeling - commitment link, the primary intervening variables include:

   a. Participants' perceptions about the integrity of the process (e.g. #90, #100).

   b. Whether or not discussion and debate is perceived to be genuine (e.g. #88, #80, #90), encouraging open sharing and a deeper exploration of views (e.g.#7, #80).

   c. Perceived congruity between personal views and the outcome (e.g. #111).

   d. Perceptions regarding the quality of the decision (#101, #109, #99).

   e. Perceptions about the degree of personal, professional and group responsibility for the outcome (e.g. #97, #126, #110, #30).

f. The impact of external factors such as the feasibility of the decision outcome (#125) and the degree of government pressure for large budget cuts to be made (#115).

g. Perceptions about the degree of control over the decision-making process (#105). There are two broad drivers to this loss of control i.e. concerns or difficulties with the computer modeling process (e.g. #85) and confidence that the model reflects the complexity of the discussion and the views of participants (#100).

Again, much of the above was strongly linked to the facilitation process.

With regard to shared understanding and commitment, the findings again demonstrate that the relationship between these two concepts is an indirect one, mediated by a number of other variables. Primary intervening variables are:

a. Perceived congruity between personal views and the outcome (e.g. #6).

b. The degree of confidence that the model reflects the complexity of the issue and the views of participants (#100).

c. Perceived quality of the final outcome (e.g. #101, #109).

d. Perceptions about the degree of personal, professional and group responsibility for the outcome (e.g. #30, #110, #126, #97).

e. Perceptions about the degree of control over the decision-making process (#105).

3. Both commitment and shared understanding are shown in some instances to result from factors other than the modeling process. "Commitment" is shown to be a complex variable with shades of meaning, from "dedication" through to "compliance", generated by factors such as:

a. A sense of a commitment to the job (e.g. #78), i.e. the sense of duty which participants feel towards their employment responsibilities and their role in the hierarchy.

b. External pressures and the likelihood of being 'attacked' by those not involved (e.g. #127).

c. Observing and understanding the process and thus the decision made during the Workshop. An example of this is the Service Managers who observed but did not participate in the process (#5).

Shared understanding was also problematic and as much to do with the quality of the discussion and debate as it was about a shared perception of the issues.

Also arising from the findings associated with this case is the understanding that the power structure of the organisation, the Decision Conference framework and the Facilitator and facilitation approach are all critical elements with regard to the degree of commitment developed by participants.

For example, successful management of the Decision Conferencing process, including both the modeling and discussion, is critical in that this ultimately impacts on participants' commitment to the outcome. As discussed in Chapter Five, one of the central influences within this case was the role of the facilitator. Some aspect of facilitation was identified by all of the participants as contributing to a sharing of views and fostering a productive discussion. For example, a skilled facilitator was seen as important in creating a 'safe' environment where people felt able to express their views openly, playing a role in minimising the degree of political point scoring and domination by individuals that might otherwise take place, demystifying the modeling process and to see that the group achieved their objectives. Providing this structure and guidance was also perceived as ensuring that sufficient time was allowed for discussion, so that participants could explore the complexities and implications of their decisions and to surface underlying issues and new ways of looking at things.

Successful management of the group, taking into account the impact of the organisational culture and context were also perceived as part of the facilitator's role. This is a wider role than just focusing on the running of the workshop itself. This theme of needing to extend the process outside the two days of the Decision Conference is also evident within this case in the expressed need for further preparation and 'prework' by participants and the desire for better communication of decisions and their rationale after the Decision Conference. This would potentially enhance the perceived quality of the decision, support the need to 'push through' (time issue) and help to bring on board the wider decision making community. It also

impacts on perceptions of fairness and equity amongst both participants and non-participants.

In conclusion, this case study demonstrates that whilst the modeling process has the capacity to generate a shared understanding between participants and a commitment on their part to act on the outcomes, it is not the only factor at work to bring about these conditions.

In addition, the crucial link in the overall Decision Conferencing process and in developing a shared understanding in particular hinges on the expertise of the facilitator and the structuring, development and quality of the debate that takes place. Both computer modeling and facilitation emerge strongly as drivers of this debate and in the overall perceived success or failure of the Decision Conference.

As importantly, the case highlights difficulties associated with the core concepts of shared understanding and commitment to action, indicating multiple levels of meaning.

As a result of all of the above, this case brought into the question not only the accuracy of the traditional model of Decision Conferencing but also the appropriateness of the twin Decision Conferencing goals of shared understanding and commitment. The concept of commitment is seen as especially problematic given its multiple interpretations by participants. These issues are discussed further under Section 7. 6 Conceptual Implications.

7. 4 Conclusions: Qualitative Data Analysis - Case 2 DC

In Chapter 6: Qualitative Date Analysis Case 2 DC, the findings again suggest that whilst the process of computer modeling in Decision Conferencing can result in both shared understanding and commitment to act on the decision outcomes, the relationship between modeling, shared understanding and commitment is a more multifaceted one than is currently represented.

As with the previous case, this complexity may again be seen as emerging from the interaction of the same three important sets of factors i.e.:

1. The relationship is not always a linear uni-directional one, moving from the modeling process to shared understanding and then to commitment. For example, shared understanding was not a prerequisite for the generation of a feeling of

commitment to act on the outcomes of the workshop (Figure 6-4 and Figure 6-5). Conversely, it was possible to develop a shared understanding of the issues yet not to achieve a commitment to act on the outcomes (Figure 6-6).

2. Where a link can be traced between the modeling process and shared understanding on the one hand and the modeling process and commitment on the other, intervening variables once again mediate the relationship. An overview of each of these links and the associated variables follows.

   For the computer modeling - commitment link, the primary mediators follow.

   d. Successful facilitation of the process (#46,#48,#49,#76).

   e. Participants' perceptions about the integrity of the process (e.g. #12, #88, #55, #138, #9).

   f. Whether or not discussion and debate is perceived to be genuine (e.g. #88), encourages deeper reflection regarding the issues (e.g. #34, #91) and to consider unexpected options (e.g. #21).

   g. Perceived congruity between personal views and the outcome (e.g. #6).

   h. Perceptions regarding the quality of the decision (#8, #4).

   i. Perceptions about the degree of personal, professional and group responsibility for the outcome (e.g. #29, #40, #11).

   j. The impact of external factors such as the likelihood of implementation and the perceived exclusivity of the process. For example, eight participants clearly believed that Decision Conferencing was seen by non-participants as an exclusive process (#44), which failed to gain wider involvement from the Council (e.g. #23, #26, #43, #116, #150, #152, #178) and thus was a threat to existing decision-making structures (#58).

   k. Perceptions about the degree of control over the decision-making process (#75). There are two broad drivers to this loss of control i.e. concerns or difficulties with the computer modeling process (#30) and negative influences related to facilitation of the process (#76).

   With regard to the computer modeling - shared understanding link, the relationship is mediated by the extent to which discussion, questioning and the open expression of views are facilitated and key issues addressed.

Where a link does exist, the critical intervening variables include:

a. Perceived integrity of the process (e.g. #55).

b. Ensuring that options are looked at logically (#138).

c. The facilitation of open discussion and debate (#52, #34), focusing on key concerns (e.g.#27); and encouragement of deeper reflection regarding the issues (e.g. #34, #91).

For the shared understanding - commitment link, primary intervening variables are:

a. Perceived congruity between personal views and the outcome (e.g. #6).

b. Perspectives regarding integrity of the process (e.g.#12, #88).

c. Perceived quality of the final outcome (e.g. #4).

d. Perceptions about the degree of personal, professional and group responsibility for the outcome (e.g. #29, #40, #11).

3. As with Case 1, both commitment and shared understanding are shown to periodically result from elements other than the modeling process. Repeating the experience of Case 1, "Commitment" again emerges as a multidimensional concept, with similar shades of meaning ranging from "dedication" through to "compliance". These interpretations arise from factors such as :

   a. A sense of a commitment to the job (#61, #111), i.e. the sense of duty which those participants felt towards their employment responsibilities and their role in the hierarchy.

   b. External pressures to resolve difficult issues (#120, #124).

   c. Feeling responsible for using the Decision Conferencing process (#143).

Also refer to points regarding the shared understanding – commitment link for additional influences.

The findings from this case reinforce the critical nature of the facilitator's role in Decision Conferencing as many of the above factors are heavily influenced by the perceived quality of the facilitation. For example, successful management of the Decision Conferencing process, including both the modeling and discussion is critical

in that this ultimately impacts on participants' commitment to the outcome. Where people are unsure about the process they tend to rely more heavily on the facilitator. Modeling imposes a heavy cognitive load on participants and the facilitator is relied upon to ensure that no major mistakes are made, despite some of the difficulties experienced with the modeling process. Success here helps to reduce feelings regarding loss of control over the decision making. The use of an independent facilitator is also perceived as keeping people on track, providing structure, moderating the discussion and enhancing people's confidence in the integrity of the process.

Despite this Case representing a relatively successful Decision Conference in that an outcome was reached which met the group's objectives, the impact of the exclusion of non-participants was that the participants were unlikely to use the process again. The Decision Conference process did not adequately take into account the political environment and power related issues.

This theme of needing to take into account the organisational context and to extend the process outside the two days of the Decision Conference was also evident in the expressed need for further preparation and 'prework' by participants and the facilitator(s) and the need for better communication of decisions and their rationale after the Decision Conference. The findings suggest that this would enhance the perceived quality of the decision, alleviate the problems associated with feeling rushed and help to bring on board the wider decision making community.

In conclusion, this case study demonstrates that whilst the modeling process has the capacity to generate a shared understanding between participants and a commitment on their part to act on the outcomes, it is not the only factor at work to bring about these conditions. In addition, the modeling process appears to operate via mediating variables to bring about the traditional desired outcomes of shared understanding and commitment.

Given the problematic nature of the concept of commitment and the key role of the debate generation and perceived decision quality, this case also brought into question the appropriateness of the expressed goals of Decision Conferencing, an issue that will be explored further in Section 7. 6 Conceptual Implications.

7. 5 Comparison of Findings

7.5.1 Comparison of the Qualitative Cases

The organisational size, culture and context of the Cases had many similarities in terms of regions, type of organisation and nature of the decisions to be made: i.e. local governments within the UK with resource allocation decisions to be made. Case 1 DC was a slightly bigger Council with 63 Councilors compared to 46 in Case 2 MBC. Both were in quite complex power arrangements with no single political group controlling the Council.

There were also strong similarities between their usual decision making style i.e. a fairly inclusive but highly political approach incorporating a complex process of Party Group consultations, negotiations between members, input from Officers and full Council sessions.

The size of the groups within the Decision Conference was similar with 13 in Case 1 and 14 in Case 2. Twelve (12) participants were interviewed from each Decision Conferencing Workshop. In both instances, the Decision Conference facilitation team consisted of a facilitator and an analyst from an external service provider (ESP). The decision analysis software, EQUITY™ was used to capture and manage the data generated during the Decision Conference.

In both cases the Officers had a pivotal role in preparing the detailed bids and associated criteria for consideration during the workshops. In Case 2 the criteria were the same as those used in a previous Decision Conference. In both cases, the bids and the criteria were distributed to the participants for review prior to the workshop.

Some key differentiating factors for Case 1, not paralleled in Case 2, include the following points.

- In addition to the participants there were a number of Service Managers who sat in as observers and had no active role in the process.
- The role of Officers was a discussion/advisory capacity only. They had prepared the various options to consider, however it was the Councilors who were there to ‘make the decisions’.
- Councilors only joined the Decision Conference on Day 2, at the Stage where evaluation of the various options was to take place.

In Case 1 the majority of participants were not committed to the outcomes of this Decision Conference, conflicting with the claims made in the ESP Decision Conference report for that workshop. This is in contrast with Case 2, where all 12 participants emerged expressing some degree of commitment, although support was certainly not unqualified.

With regard to the central research questions, while in both cases a link exists between shared understanding and commitment, this emerged as a much more intricate relationship than evident in the Decision Conference literature. As discussed, the complexity in both cases is seen as a result of three primary factors i.e.:

1. The relationship is not uni-directional.
2. Critical intervening variables exist.
3. Both commitment and shared understanding emerge as a result of factors other than the modeling process.

As indicated, shared understanding and commitment were complex terms that were interpreted in various ways by participants in both cases. Also emerging from the two cases was the sense that there were two sides to a Decision Conference that need to be integrated. One is the more rational approach embodied in the computer modeling and its underlying decision theoretic foundation. The other was the more nuanced skills required by the facilitator to work in tandem with this rational structured process. The facilitator was seen as critical to the perceived success of the Decision Conference.

To further highlight the similarities between the two cases, Table 7-1 presents a comparison of the Principle Themes drawn from the qualitative analysis of Case 1 MBC and Case 2 DC data. While some of the clustering differs between the cases, reflecting the differing experiences between the groups, an examination of the descriptions for each grouping demonstrates the significant overlap concerning the key issues to emerge. This is despite the fact that the overall perception in terms of the 'success' of the Decision Conferences was quite different for each group.

In short, a comparison of these themes reveals:

- Commitment is multifaceted, incorporating notions of compliance, obligation and personal values.

- Power and influence are key issues: Issues of power and influence emerged as key themes in both cases, potentially undermining the success of the workshops. It has also been argued by de Reuck, Schmidenberg & Klass (2003) that many of the shortcomings of group facilitation can be attributed to undervaluing the role of power in groups.
- Quality of discussion and debate is critical.
- The computer modeling lends structure and rationality, but can create difficulties.
- The role of the facilitator is central to the process.

Table 7-1 Comparison of Principle Themes Case 1 and Case 2

Case 1		Case 2	
Theme	**Description**	**Theme**	**Description**
Commitment	How people felt about the outcome and their degree of commitment to it. Issues impacting on commitment such as the ownership of and feelings of responsibility for the outcome (a more affective response to the decision), perceived decision quality, the notion of compliance, concepts related to implementation such as external pressures and perceived feasibility.	Commitment	Issues impacting on commitment such as the ownership of the outcome (incorporating the notion of compliance), discussion quality, generation of new insights and options, understanding of the issues and perceived decision quality and the importance of the criteria in the process.
Power & Influence	Focused around the issue of power and influence, including power relationships within the group & control over decision making; the makeup of the group and perceived roles, degree of control and influence over the decision making.	Exclusivity	Issues surrounding power relationships within the Council and the impact of the perceived exclusivity of the Decision Conference process.
Validity	Primarily concerned trust in the process and perceived validity of the process. Perceived quality and validity of the outcome, quality of discussion, understanding of issues, confidence that the model reflected the complexity of the decision making, beliefs regarding what would make a good decision (i.e. the 'best bet') and role of preparatory work.	Likelihood of Implementation	Concepts related to the perceived likelihood of implementation of the outcome. Feasibility; pressure to comply with outcome – external and internal; likelihood of gaining support from full Council; defensible process i.e. structured, rational; organisational and political influences.
Process	Two distinct but related sub-groupings. This included perceptions of the modeling process and its implications. Issues revolved around difficulties with the computer modeling as well as positive aspects of the process (e.g. structured, rational, brings to light new options). The other aspect of this cluster concerned the role of the facilitator. Degree of trust in the facilitator, perceptions regarding influence, facilitator's pivotal role in management of the process.	Loss of Control over Decision Making	Perceptions regarding the potential for loss of control over the decision making process. Issues revolved around difficulties with the computer modeling process and the impact of the facilitator; pivotal role of the facilitator in managing the Decision Conference process; facilitator's ability to enhance discussion.

7.5.2 Comparison of the Quantitative and Qualitative Findings

The quantitative data largely supports the conclusions drawn from Case 1 MBC and Case 2 DC in that it shows that while a link exists between the central concepts, there is a large proportion of unexplained variation. The qualitative findings as presented in this study provide some of the possible explanations for this variation.

Furthermore, the large degree of variation in responses to particular questions to the quantitative survey e.g. degree of commitment, also appear to support the conclusion that concepts such as shared understanding and commitment are not as straightforward as suggested in the literature. Again this concurs with the qualitative data.

An example of one possible explanation for the variation in responses with regard to commitment is touched on in Chapter Four, where one of the participant's quantitative survey responses indicated he was highly committed and cared a great deal about the outcome. However, in examining this individual's interview transcript it became evident that underlying this statement of commitment was a strong dedication to his job and carrying out the decisions of the Council, rather than a personal commitment to act. In the survey, the participant's feelings were perhaps more accurately reflected in his response to the best bet question, in that he clearly disagreed that the outcome was the 'best bet' given the circumstances. This participant allocated a score of two on the seven-point scale to this item, where a one indicated strong disagreement and a seven indicated strong agreement. This person would do his job, regardless of personal beliefs about the quality of the decision. This was a common thread throughout the interviews with the Chief Officers across both cases.

Whilst it is not possible to say with certainty, it is possible that the difficulties participants experience with the notion of commitment and the various interpretations evident in the qualitative data, were the key points behind the high degree of variation in responses to questions regarding commitment (see Chapter Four for a further discussion of this). If this was the case, then these two sources of data are reinforcing the same point i.e. that commitment is possibly not the most appropriate goal. It is possible that Commitment is too broad a measure, not sensitive enough to capture the range of concepts this encompasses. Further, given

that commitment may exist independent of the Decision Conferencing process, perhaps it should be measured before and after a workshop, and the change in commitment attributable to the Decision Conference might then be determined.

In the quantitative data, there was general disagreement with the notion that the participant may have found some part of the modeling process hard to understand. To some extent this was similar to the qualitative findings, although it was interesting that many observed others to have difficulty.

As with the qualitative cases, the importance of discussion and debate is also evident in the quantitative data. The computer modeling emerges as instrumental in facilitating this, but did not provide the whole explanation. Overall, the computer modeling process was seen by respondents to be a result of the integration of the ideas of all participants, providing a rationale approach to decision making and enhancing confidence in the final outcome. The process was perceived to be an effective means of providing immediate feedback regarding the implications of various suggestions from participants. The notion that group model building leads to plans that would be loyally implemented was not well supported. Again this correlates with the qualitative findings.

As with the qualitative findings, the link between decision quality and commitment also emerged with the solution being the 'best bet' highly correlated with the various measures of commitment.

Views regarding the facilitation were varied concerning the various items associated with the facilitation of the process. Almost 67% indicated some degree of agreement with the view that the facilitator helped to structure their thinking. However, it is worth noting that only four items relating to the facilitation were included in the survey. The questions asked in the survey focused more on what the facilitator was seen as doing, but didn't identify the concerns, additional roles and pivotal nature of this role that is evident in the qualitative data. Given the prominence of this issue in the qualitative findings, the role of the facilitating team was possibly under-represented within the quantitative survey.

Overall, however, the difference between the qualitative and the quantitative data is not so much in the substantive findings. Rather it is more that the quantitative data does not tell the whole story and in some ways could be misleading if seen separately

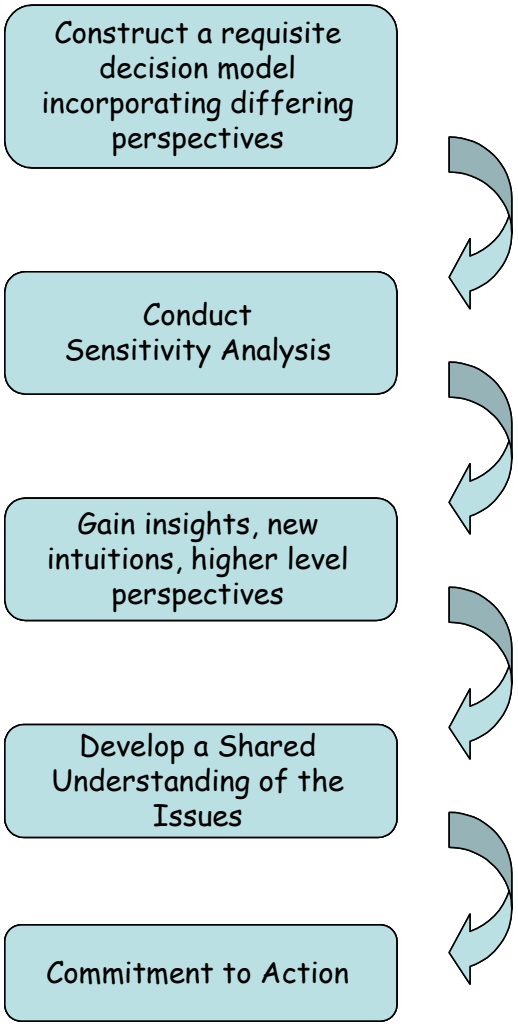
from the richer contextual and more involved responses provided within the case studies.

The following section examines the conceptual implications of the conclusions presented here.

7. 6 Conceptual Implications

Recall from Chapter Two that the traditional model of Decision Conference is broadly as follows:

Figure 7-1 The Traditional Model of Decision Conferecing



Here the linear sequence of events can be seen along with the predominance of the twin goals of Decision Conferencing:

- shared understanding and
- commitment to action

Chapter Two discussed this traditional model in some detail. Following is a discussion of the appropriateness of specific aspects of this model given the findings from this study.

7.6.1 The Role of Computer Modeling in Decision Conferencing

The traditional model of Decision Conferencing focuses entirely around the computer modeling and to some extent this is justified. As discussed in Chapter Two: Literature Review, the computer modeling and its underlying theoretical base of Decision Theory form the cornerstone of the whole Decision Conferencing process.

Decision Theory itself largely falls within the framework of Rational Choice Theory (RCT) and the application of Decision Analysis guides the problem solving process based on these underlying assumptions of rationality

According to the literature (Phillips 1988a; Phillips 1990b), Decision Analysis plays three roles within the Decision Conference process i.e.:

- First, decision analysis provides a language that participants can share.
- Second, decision theory provides a grammar for manipulating meaning and establishing priorities in ways that are not easy with words alone. For example, addressing problems that involve multiple objectives and requiring tradeoffs.
- Third, decision theory plays provides a structure to encapsulate and accommodate the group's thinking.

The findings of this study support this view regarding the role of computer modeling and hence Decision Analysis within the Decision Conferencing process. Where it is managed effectively, the computer modeling is seen as a means of focusing the debate and as an effective tool to test the rationality of the decision being made.

While problems exist with regard to the management of this process e.g. with regard to ensuring that all participants can understand what is happening, are able to comprehend how criteria is evaluated, perceive openness and equity in the discussion

and the debate and so on, in general the rational, linear approach represented by the very structured computer modeling process is seen as a strong benefit of the Decision Conferencing process.

Essentially the computer modeling is seen as a facilitating factor bringing structure, rigour and a degree of objectivity to the decision-making process. It also acts as a catalyst for discussion and debate when managed effectively by the facilitating team.

However, as also indicated in Chapter Two, recent publications by de Reuck et al (2000a, 2002) concerning the practice of Decision Conferencing have raised some concerns regarding the underlying assumption of rationality, where the authors argue that:

> … the underlying interpretation of rationality is inadequate to accommodate the social and communicative aspects of group interaction and is not sufficiently robust to integrate the two component parts of the decision conference viz, modelling on the one hand and facilitation and communication on the other."
>
> (de Reuck, Schmidenberg & Klass 2000a: 3)

While the authors' discussion of this issue was reliant on their experience as Decision Conference practitioners and not formal gathering of empirical evidence, the findings within this study largely supports this conclusion.

That is, while the computer modeling supports the decision-making process in a number of ways as discussed above, this theoretical base requires augmentation in order to compensate for the fact that the nature of the rationality assumption governing Decision Conferencing is, as asserted by de Reuck, Schmidenberg & Klass (1999: 197), inadequate to the task of recognising distorted forms of communication, e.g. from power relations.

7.6.2 The Central Role of the Facilitator

The preceding section highlighted the central role of computer modeling both in the extant literature and in the findings from this study. However, while the role of the facilitator emerged even more strongly from the data analysis as a pivotal point in Decision Conferencing this is not similarly reflected within the traditional model of Decision Conferencing as depicted in Figure 7-1. Nor is it adequately addressed in the overall Decision Conferencing literature. The facilitator is largely absent from

discussions regarding the Decision Conferencing process. This is a critical omission, especially given the crucial nature of this element in the whole Decision Conference experience.

To further emphasise this point, recall from the findings that a successful facilitator needs to possess:

- a sophisticated mastery of the software and the underlying decision analytic theoretical base on which it is run
- the expertise to demystify the computer modeling process for quite disparate groups
- a degree of competence regarding the hardware on which the software is run
- the resourcefulness to surface tacit knowledge amongst the group
- the proficiency to handle a complex decision making process and to facilitate the creation of a new meaning amongst the group
- an appreciation of the specific organisational culture and the political context and to be able to incorporate this understanding into the facilitation

The perceived success of the Decision Conference is largely predicated on the ability of the facilitator to do all of the above, yet to date there has been no formal framework on which to base this facilitation process. Very little discussion of this highly demanding role is evident in the literature, although discussions with practitioners suggest that at times those with a great deal of experience may unconsciously practice many of these elements.

Based on the above, the findings concur with the discussions by de Reuck, Schmidenberg & Klass (2000b); de Reuck, Schmidenberg & Klass (2000a) and de Reuck, Schmidenberg & Klass (2003) i.e. that the role of the facilitator in this process is appreciably under-theorised.

7.6.3 The Goals of Decision Conferencing

Having discussed the role of the computer modeling and facilitator in the Decision Conferencing process, this section examines the traditional goals of the process, namely:

- Shared Understanding
- Commitment to Action

7.6.3.1 Shared Understanding

Recall from the findings that while a link exists between shared understanding and commitment to action, this link is not uni-directional and it is one that is heavily mediated by intervening variables.

One interpretation of the findings in relation to the link between shared understanding and commitment is that perhaps a natural connection between these two concepts does not exist, despite the ingrained assumptions evident in the literature and practice of Decision Conferencing.

For example, it could be argued that the deeper the debate is pushed amongst participants in a genuine attempt to achieve a high decision quality outcome, the less shared understanding one might therefore expect e.g. as participants delve deeper into the issue and its nuances the more complex the issue becomes.

If this is not a natural link then one explanation regarding its continual reaffirmation in the literature - and status as a valued goal in the Decision Conference process - is that it is highly metaphorical and consequently attracts people at a deeper emotional level. Its inherent appeal is its suggestion that by creating a shared understanding then the group will achieve a sense of union, community and the transcendence of self. In part this would explain its intrinsic appeal to both Decision Conference practitioners and those organisations that choose to adopt this approach.

In essence this view comes from a motivational approach. Broadly, there are two main motivational theories:

1. Duty based theory
2. Utility Based Theory (rational choice)

The belief implicit within the Decision Conferencing literature appears to be that developing a shared understanding will pull people together under utility theory and this is related to the way it engages the various metaphors discussed earlier. The motivation here is encompassed by the metaphorical implication that by sharing one can become whole. It is possible that these soft metaphors are unconsciously

mobilized during the Decision Conference process to suggest that the group can overcome their 'selfishness' and a sense of community would emerge.

The subsequent argument here then is that if you get people aligned through shared understanding then you get commitment. This mobilization of metaphors within the Decision Conference process means that people buy into this notion quite readily, but it is not well supported when examined in detail as in this study.

However, it is not only the logic of the argument concerning attainment of a shared understanding and the link to commitment that is questioned here. The findings also call into question the definition of the term itself and its usefulness in the Decision Conferencing process. Like commitment, the concept of shared understanding is also a multifaceted term from a participant's perspective. In examining the findings further it is not so much a shared understanding that is important but rather a surfacing of tacit knowledge, the ability to explore nuances, the quality of the debate and providing the opportunity for the group together to co-create meanings that might not be possible otherwise. All of these elements ultimately impact on the quality of the final decision.

Given the preceding discussion it is questionable whether the development of a sense of shared understanding should be an explicit goal of the process, although it may be a valuable step along the way. This is discussed further later in this chapter.

7.6.3.2 Commitment to Action

In considering the second Decision Conferencing goal of commitment to action, this study reveals this concept as equally problematic. In addition to the issues regarding the links with shared understanding as discussed in the preceding sections, this term was found to represent various things for participants, including compliance, commitment to one's role, commitment to the organisation, commitment in term's of obligation to the group and not just commitment to the decision made during the Decision Conference.

Despite the fact that the quantitative measures of commitment used in this study provided to be both valid and highly reliable, the variation in the responses both across and within cases provided an early indication to this problem of multiple interpretations. When looked at in conjunction with the qualitative findings, it is

evident that these simple scale response questions do not adequately capture the complexity of participants' perceptions.

This multiplicity brings into question the appropriateness of commitment as an expressed goal of the Decision Conference process. Further support for this is consideration of specific findings such as the example from Case 2 where the actual concept *commitment* (#5) was not captured as part of the overall Commitment cluster. As discussed in Chapter Six one of the possible interpretations of this is that perhaps it wasn't as important that all participants felt committed, as it was to ensure that the key power brokers achieved agreement and compliance from people and were able to push this through the full Council. This also ties in with the notion of obligation as discussed previously.

Commitment in the form of obligation is also evident in Jacques' (1989) work. However, while Decision Conferencing theory draws on the Tavistock approach to group functioning and group dynamics as well as on aspects of organisation theory such as Jacques' (1989) ideas on organisational structure, it seems it does not draw sufficiently on the ideas behind Jacques' split from the Tavistock Institute in 1952. Jacques experiences at that time led him to rethink his views on group dynamics in the context of organisations. He came to the conclusion that difficulties in these groups lay not in group dynamics and personality differences, but in the unreality of group decision making in a managerial hierarchy organization. As Jacques (1998) comments in looking back at this realization:

> there is no such thing in life as situations with free floating accountability and authority, in which something of the order of generalized group processes can occur…
>
> The second and equally illuminating finding was that it is possible to bring far-reaching and rapid changes in behavior and in interpersonal relationships, without any change occurring in individual personality, simply by clarifying the nature of the required working relationships, or by clarifying and modifying them. Accountability and authority are at the center of all human relationships. The clarification of the required accountability and authority can have the most profound and lasting effects upon the ways in which people behave toward each other.
>
> (Jacques 1998: 256)

In reviewing the findings from this study, these comments are also true of the Decision Conference groups. It is making clear the roles and responsibilities of the

various participants that would also help to cut down on the perceived conflict and differences in levels of commitment. Does it matter that not all participants were committed? In this view, probably not – it is the role of the officers to comply – and it is where this role was not agreed or clearly understood that difficulties arose.

One of the views implicit in the Decision Conferencing literature is that participants are all at the same level and equally able to speak and be heard, but this rarely occurs and is an unrealistic expectation. Therefore the implications for both participant organisations and for practitioners here is clear. Prior to the Decision Conference the organisational situation needs to be requisitely established and clarified and the people concerned to clearly understand their accountabilities and level of authority. This would make their role in the Decision Conference itself clearer. In this case as well, it would then be meaningless to ask for commitment per se in terms of personal commitment to outcomes. Rather, this is an acceptance of responsibility and the creation of an obligation to act on the outcomes.

7.6.3.3 New Goals for Decision Conferencing

Having argued that neither shared understanding nor commitment to action are appropriate goals for the Decision Conference experience, what would be appropriate substitutes?

In the deeper exploration of commitment conducted with regard to the case analyses, a strong underlying concept emerges that appears to capture all of the various dimensions – this was the *obligation to act.* Based on the findings from this study it is evident that the factors that drive this obligation include a professional obligation, the obligation to the group, and finally a sense that the quality of the decision itself creates this obligation.

Where people feel that together they had reached a space where a new level of meaning emerges and new possibilities become evident, where they had surfaced all of the nuances and debated these extensively using a process viewed as legitimate by the group, what emerges is the best quality decision that could be made under those particular circumstances.

As a result of this it is argued that knowing that the decision that has emerged is the ‘best bet’ solution, supported by a legitimised process, thus creates this obligation to

act in terms of role, decision quality and group obligation. This conclusion is not only supported in the qualitative findings, but also in the quantitative studies where the notion of a solution being the 'best bet' is highly correlated with the various measures of commitment (encompassing as the cases show these measures do, the various dimensions of commitment including obligation).

In reconceptualising the Decision Conference process in this way, this dispenses with the need for a shared understanding or commitment as a goal. The focus is then on two key areas as alternative goals for the process:

- development of the 'best bet' or highest quality decision possible
- development of an obligation to act.

However, closer consideration of the concept of obligation to act presents this concept as being as equally problematic as the notion of commitment to act. As with commitment, many aspects regarding obligation fall outside the realm of the Decision Conference Workshop. Consequently it is felt that while it is important to include this as a possible benefit of a revised Decision Conference process, it is not appropriate as an explicit goal of a Decision Conference.

The findings and the preceding discussion therefore suggest that the higher order goal which subsumes these various factors is Decision Quality. Essentially this is an expansion of the 'best bet' concept which exists within the Decision Conferencing literature. It is emphasized that it is not that the research data suggests that decision quality IS an outcome of the Decision Conferencing process, but rather that the pursuit of the best quality decision possible is a more appropriate goal to aim for in both participating in and facilitating a workshop of this kind.

Facilitating the achievement of this revised goal engenders a corresponding need for a deliberate focus on argumentation the encouragement of debate, surfacing diversity, fostering the force of the better argument, encouraging and managing a positive contestation of viewpoints, ironing out of distortions and the co-creation by the group of new high quality possibilities. The need for this deliberate emphasis thus creates an even stronger imperative for the development of a broader theoretical base for the practice of Decision Conferencing.

The following discussion therefore examines two distinct theoretical areas, which based on this revised goal and the consideration of the role of obligation; potentially have much to contribute to the theory and practice of Decision Conferencing i.e.:

- Theory of Legitimation
- Complex Adaptive Systems

7.6.4 Broadening the Decision Conferencing Theoretical Base

The preceding discussion briefly reviewed the traditional model of Decision Conferencing and concluded that based on the findings from this study:

- While the computer modeling is an integral, beneficial component of the Decision Conference process, the underlying rationality assumption does not adequately accommodate the social and communicative aspects of group communication.
- The facilitation of the process is under theorised – a point which also relates to the above comment.
- A more appropriate goal for the Decision Conferencing process revolves around decision quality.
- All of the above have the potential to foster an obligation to act on decisions made.

In making these claims and asserting that the revised goals of Decision Conferencing be to aim for the best bet or highest decision quality possible under those specific circumstances and linking this with an obligation to act, it is suggested that the two theoretical areas that resonate with this are the Theory of Legitimation and the Complex Adaptive Systems theory. The relevance of each of these is addressed in turn.

7.6.4.1 Theory of Legitimation

This notion of obligation discussed in this chapter is related to the Kantian notion of self imposed obligation and was discussed by Rousseau in the relation to the problem of political legitimacy. Rousseau's argument was that where an individual was free

to express their conception of a general will reflecting their concept of social welfare, then the resulting structure would be a legitimate one, morally obligating the individual to obey (Richardson & Dowling 1986: 95).

This concept is taken further by Habermas, who argues "the legitimacy of social action can only be achieved through social consensus in the absence of such domination" (Richardson & Dowling 1986: 95). While Habermas' discussions here related principally to studies of the state and the decline of normative legitimacy, his concern with problems of power and legitimacy are also relevant on a more micro scale. The main theme of Habermas' theory is that valid knowledge can only emerge from a situation of open, free and uninterrupted dialogue (Habermas 1979).

Habermas' suggestion is that this occurs in the context of the "ideal speech situation" (Richardson & Dowling 1986: 95). Here legitimacy will be attained under the following conditions:

1. unrestricted discussion,
2. based on the mutuality of unimpaired self representation and
3. full complementation of normative expectations.

While these conditions are unlikely to exist under everyday circumstances, Habermas (1979: 97) claims that these conditions can be created so that one can assess the...

> ..comprehensibility of the symbolic expression, the truth of the prepositional content and the rightness of the speech act with respect to norms and values

Thus, through reasoned discourse a form of procedural legitimation and consequently an obligation is arrived at.

As discussed in Chapter Two, more recently there has been some discussion of this application of Habermas' theories in the Decision Conferencing literature (de Reuck, Schmidenberg & Klass 2002; de Reuck, Schmidenberg & Klass 2003; de Reuck, Schmidenberg & Klass 2000a; de Reuck, Schmidenberg & Klass 2000b). de Reuck, Schmidenberg & Klass (2003: 19) build on Habermas' work, drawing in their extensive Decision Conferencing experience in developing a process whereby they claim that conditions can be created under which any group can optimise their decision quality and make the 'best cognitive bet' the group is capable of at that time. The authors propose the following decision quality assurance conditions:

a. Authentic debate – discourse for democratic attraction and communication – group members must agree to be bound to the authority of the better argument.

b. Treating the group members with dignity – cognitive respect.

c. Commitment by the group to be receptive to diversity of opinion.

d. Diversity of perspective and judgment – entitles group members to maintain their opposition, even to the decision finally endorsed by the majority.

e. Group commits to accepting cabinet responsibility for the decision endorsed by the majority.

These principles are seen as a means of civilising the debate and are "..vindicated by the procedural fairness and subsequent legitimacy and so secure group buy-in by maintaining individual authentic autonomy." (de Reuck, Schmidenberg & Klass 2003: 17).

The process suggested here also draws heavily on Habermas' notion of communicative action (Habermas 1979; Habermas 1984). As discussed in Chapter Two, in communicative action the recipients react to a claim presented in the message by 1) understanding its meaning, 2) taking a stance of agreement or disagreement with the message and 3) if in disagreement, the receiver then presents his/her position for disagreement (Brand 1990: 26).

The findings from this study to some extent validate these principles and it is argued that these need to be consciously drawn into the practice of Decision Conferencing. This argument is developed further in the next section.

However, it is also argued that this is not the only route to achieving a form of procedural legitimation and consequent obligation to act. The next section presents an overview of the possible contribution from Complex Adaptive Systems (CAS) theory to the Decision Conference process and outlines how incorporating elements of CAS links to the notion of enhanced Decision Quality.

7.6.4.2 Complex Adaptive Systems

As noted earlier, within the Decision Conferencing process there exists a strong linear component, largely represented by the very structured computer modeling process. However interwoven throughout the workshops and in participants perceptions there is a more complex non-linear element both in terms of what

happens and in the way people perceive what takes place. This unpredictability is not captured in the Decision Conference literature and until now there has been no sound theoretical base from which to draw in considering this. More recently there has been a growth in research with regard to Complex Adaptive Systems (CAS). Whilst it is beyond the scope of this study to explore this area in great depth, those aspects that resonate with the Decision Conference experience are touched on here.

CAS are essentially dynamic systems able to adapt or change within or as part of a changing environment. The point that is made is that this isn't just adapting to, but rather a form of co-evolution (McKenzie 2000?; Mitleton-Kelly 2002)).

Complexity arises from the inter-relationship and inter-connectivity of elements or agents within a system and between an environment and a system (Mitleton-Kelly 1997). The theoretical framework for CAS is based on work from the natural sciences studying CAS, however much of the recent work in this area focuses on complex social systems using the generic characteristics of CAS only as a starting point, but without directly mapping between the disciplines.

For example, more recently there has been some recognition that humans are conscious and 'learn' in way that physical, biological and chemical systems do not, hence the term complex evolving systems (CES) has begun to emerge in the literature to distinguish human from other systems (e.g. Allen 1997; McKenzie 2000?). An example of this is within the Complexity research program at the London School of Economics. CES is the term that will be applied in this discussion.

The generic characteristics of CES include characteristics of non-linearity, self-organisation, emergent properties, far-from-equilibrium operation, sensitivity to initial conditions and innovation as exploration of the space of possibilities (LSE 2003). It is argued here that to varying degrees many of these are also characteristic of a Decision Conference Workshop.

Another critical component of CES is the notion of the system as composed of a number of interacting 'agents', which interact and adapt (or evolve) as their experience accumulates. As Holland (1995) observes, in referring to complex adaptive systems...

> .. a major part of the environment of any given adaptive agent consists of other adaptive agents, so that a portion of any agent's efforts at adaptation is spent adapting to other adaptive agents. This one feature is a major source of the complex temporal patterns that CAS can generate
>
> Holland 1995:10.

In social systems, such as in a Decision Conference group, this interaction can be seen in the shifts in influence, fluctuations in the debate and discussion and changes in views and positions which occur during the workshop. Thus it is this notion of interaction and adaption, possibly connected to Shotter's Circle of Agency (Griffin, Shaw & Stacey 1998: 323) that is also of relevance to the Decision Conference experience.

> Shotter's view of *social constructionism* links the self-organizing emergence of *conversational realities* to our practical-moral accountability in the context which we live and *group analytic practice* give insight into the *agency of the matrix* which the groups form.
>
> (Griffin, Shaw & Stacey 1998: 323 author's italics)

Shotter's view is that meaning emerges spontaneously due to the interaction between individuals, so one doesn't just choose responses, they are also evoked. In their discussion of this, Griffin, Shaw & Stacey (1998: 326) argue that in respect to the relevance of complexity theory for organisations, the points Shotter raises are central i.e. "That social reality emerges as a self organizing way out of the conversational interaction in which they might be trying to construct an image of what they want to do."(Griffin, Shaw & Stacey 1998: 326). Again what comes through is the importance of the communicative action, dialogue and interaction being considered in a deliberate purposeful manner by those seeking to work with decision-making groups in order to achieve the best outcomes possible.

However, people don't come empty-handed to a Decision Conference so other factors come into play in this creation of meaning. Evident in the findings from the study and in the very structure of the modeling process is that people bring with them various forms of mental models regarding the way their world works and consequent notions of appropriate ways to act.

Following Klass & Whiteley (2003), the value of applying these mental models during the Decision Conferencing process as a means of mapping the way through

complex information is acknowledged. However, as the authors note, there exists the possibility that mental models such as these become 'self-fulfilling and self-reinforcing' (Klass & Whiteley 2003: 9). This impacts on the boundaries of the world that the group of 'interacting agents' creates, possibly limiting what the group can achieve – or even conceive of.

As Kauffman notes (in Mitleton-Kelly 1997) in his discussions regarding complexity, in relation to genetics this means that the contribution a new gene can make to species overall fitness depends on genes the species already has. In social systems…

> ..this may be likened to the history of experiences and constitution of an institution - new ideas can only be 'seen' and developed if both the constitution and the history allow them to be 'seen' and be developed.
>
> (Mitleton-Kelly 1997: 12)

It is in opening up this new range of possibilities that complexity theory in general and CES in particular offers insights that may be of benefit to Decision Conference practice i.e. offering new prospects in terms of opening up this potential, tapping into new ways to surface tacit knowledge and supporting the group's search for new possibilities or ways of doing things. According to Kauffman (1995) the two requirements for unleashing this potential knowledge are spontaneity and unpredictability. The benefits of achieving this would not only be to capitalise on the participants' expressed desire to delve deeper and to address the nuances of the decisions to be made, but to also bring the group closer to reaching the best decision possible under those particular circumstances. This also has significant implications for overall organisational functioning and attainment of organisational goals. As, Mitleton-Kelly (1997: 16) notes...

> …the sciences of complexity have shown that for an entity to survive and thrive it needs to explore its space of possibilities and to encourage variety. Complexity also indicates that the search for a single 'optimum' strategy is neither possible nor desirable.

This notion is directly applicable to the current environment. Using the past to predict the future, extrapolation of existing strategies and assumptions of stability are no longer feasible given the rapid change and integration of the current social and business environment.

> When markets were stable and growth was a constant, single optimum strategies based on extrapolation from historical data, were thought to be feasible. But unstable environments and rapidly changing markets require flexible approaches based on requisite variety (Ashby, 1956).
>
> (Mitleton-Kelly 1997: 16)

It is therefore argued that in order to augment the benefits provided by the more linear computer modeling process, a complementary concept would be to incorporate some of the principles promoted in the CES literature into the Decision Conferencing process. An example would be Kauffman's (1995) ideas of spontaneity, unpredictability and self-organization. Primarily what is being referred to here is one of Kauffman's central concepts and another of the key features of CES, that of the *Space of the Adjacent Possible (SAP)*. Kauffman (2000) describes the adjacent possible as the set of things that are only one step away from actual existence. This is further illustrated by Mitleton-Kelly (1997) as follows:

> When searching the space of possibilities, however, whether for a new product or a different way of doing things, it is not possible to explore all possibilities - but it is possible to consider change one step away from what already exists. This is called the ***'adjacent possible'***.
>
> (Mitleton-Kelly 1997: 17)

A review of Kauffman's work likened this notion of the adjacent possible as akin to potential energy in physics, i.e. a metaphysical idea with real utility. This is the view taken here i.e. that this is a descriptive phrase rather than an actual entity.

Griffin, Shaw & Stacey (1998) discuss this 'step' in the context of individual agents interacting and producing an emergent reality – not one hidden and waiting to be revealed, but rather one co-created by the agents themselves.. "..not an already existing reality, rather it is a potential unfolded by experience – a movement into the space of the adjacent possible' (Griffin, Shaw & Stacey 1998: 320).

As Klass & Whiteley (2003: 9) note, as individuals interact, they produce a potential. Not only do they do this, but they also do it interactively. The interactive process is co-creation. In order to facilitate and encourage this, it is necessary to not only challenge the overt contributions of individuals but also to surface the tacit knowledge of the group. In order to surface any predetermined constructs and move the group a step closer to the SAP, it is necessary to subject these issues to not only

rigorous debate, but also to a form of 'spontaneous conversation' (Klass & Whiteley 2003: 9).

As discussed earlier, there is evidence that people bring with them predetermined constructs into the Decision Conference workshop, some of these evident in the detailed bids or options prepared for analysis. It is argued here that by integrating the concepts of complexity discussed here, these predetermined constructs or schemata should be subject to constant reappraisal in the light of spontaneous conversation and the new insights gained from this. Holland would call these conversations 'working models' (Klass & Whiteley 2003 call them 'the potential') and these are co-created by the group. The danger lies when the participants in the Decision Conference rely too heavily on existing mental models, thus conceivably falling short of their potential for co-creating new possibilities.

As indicated earlier, Griffin, Shaw & Stacey (1998) argue that developing an emerging understanding which is more than just relying on existing mental models and ways of thinking signifies a move into the Space of the Adjacent Possible. The more ideas one has, the more possibilities there are for recombination and the better the chances of achieving a higher quality outcome.

There is some evidence of this taking place during the Decision Conferences examined in this study. For example, during the Decision Conference process, what became evident from the findings was that people's understanding of the issues and of each other changed during the process and was impacted by a number of things, not just the computer modeling. New insights and options that may not have otherwise been possible emerged during the process.

In relation to Decision Conferencing the point being made is that what the workshop produces in terms of a final decision need not be a realisation or explanation of an already existing 'solution' or reality that is enfolded, rather it is a potential to be unfolded by the joint experiences of those participating within the process.

As Griffin, Shaw & Stacey (1998) state in their article discussing complexity theory and its place in management theory and practice, contexts far from certainty and agreement have much to gain by incorporating the principles of CAS. This is especially by attending to those in this field who see "agents and the social worlds as mutually created and sustained so that agency lies both at the individual and the

collective level" (Griffin, Shaw & Stacey 1998: 315). This is true of most organisations and certainly characteristic of those within this study.

A further example of how CES might be applied at the organisational level is discussed by Slocum & Frondorf (1997). In the application of these concepts to their own organisation Slocum & Frondorf (1997) developed a management model where the primary mechanism for knowledge development and enhancement is through in-depth dialogues, drawing on individuals' knowledge and creativity. Underlying this model it the core idea of the autonomous agent. As Mitleton-Kelly (1997: 23) notes in her discussion regarding this case:

> …It is the full attribution of autonomy and responsibility for one's decisions and actions, which makes the application of complexity principles possible within an organisation. This of course changes the nature of the business process and the organisational form.

For Slocum & Frondorf (1997: 1), this necessitates the allocation of adequate resources and the incorporation of processes that support thinking before decisions are made. They see this as central to the continuing dialogue process, which is the primary mechanism for knowledge development within their organisation.

> It enables all employees to contribute their individual knowledge on a wide range of subjects to assist the evolution of effective business practices and expertise.
>
> (Slocum & Frondorf 1997: 1)

This concept also ties in with de Reuck, Schmidenberg & Klass' (2003) comments regarding their perceptions of the group as not just a single entity, but as a collection of individuals and the importance of maintaining individual authentic autonomy. It also complements their arguments concerning the importance of communication and dialogue within the Decision Conferencing process.

However, also emphasised through consideration of CES theory is the new possibilities that can emerge through this network of interacting agents' i.e.

> These interact in a non-linear manner creating wholes, which are much more that the sum of the parts and are sensitive to small fluctuations. Agents in such networks self-organize to produce emergent order or disorder – unfolding either highly stable patterns of behaviour, or chaotic ones, or paradoxically stable and unstable ones close to the 'edge of chaos'.
>
> (Griffin, Shaw & Stacey 1998: 318)

As indicated here, in moving from the certain knowledge to the uncertain or potential knowledge participants cross what Klass & Whiteley (2003: 8) call the edge of uncertainty.

Given the preceding discussion it is argued that by adopting the concept of uncertainty, spontaneity and unpredictability - essentially more chaotic than orderly - as well as the more logical structured approach embedded in the computer modeling Decision Conferencing can take on a new guise designed to enhance its suitability as a powerful group decision support system. Here the facilitating team can draw upon two dimensions from participants, one is the factual and technical knowledge possessed by or available to the group, the other includes tacit *and* potential knowledge.

Another point to be made here is that, as has been recognised by researchers at the LSE, the relevance of complexity to Decision Conferencing is not so much a tool, but rather a way of thinking impacting on the facilitation of the process. It is an awareness of the characteristics and implications discussed in relation to CES that have the potential to both change ways of thinking and in turn impact on Decision Conference practice. As Mitleton-Kelly (1997: 21) observed, the key advantage here will be…

> ..the ability to recognise new patterns as they emerge, which will provide organisations with a real competitive advantage in future. Thinking in complexity terms helps in 'seeing' the new patterns.

Further, by incorporating into the Decision Conferencing facilitation process the work from de Reuck, Schmidenberg & Klass (i.e. de Reuck, Schmidenberg & Klass 2003; de Reuck, Schmidenberg & Klass 2002; de Reuck, Schmidenberg & Klass 2000a; de Reuck, Schmidenberg & Klass 2000b; de Reuck, Schmidenberg & Klass 1999), the possibilities that emerge from integration of both the logical, structured use of the Decision Theoretic based computer modeling and the incorporation of elements of Complex Adaptive Systems theory, can then be subject to rigorous discussion and debate, interacting to further create new possibilities and ultimately resulting in the best quality decision possible for that group at that time.

Similar to Klass & Whiteleys' (2003) argument concerning their model of integrated connectiveness in joint application development (JAD), what is suggested here is that while participants bring with them a wealth of knowledge and expertise, also residing

within each individual – and possibly to emerge from the group - are a number of spontaneous, unpredictable and yet to be discovered insights. Both the Decision Theoretic principles embodied within the computer modeling as well as the skilled facilitation of the process incorporating the elements discussed here enable the group to achieve the results of these potentials i.e. spontaneous, unpredictable and uncertain – a movement into the Kauffman's Space of the Adjacent Possible.

All of the above may be made possible through deliberate facilitation of a process that encourages this co-creation of potential. That is, by encompassing key elements of CES *and* incorporating the theoretically strong principles of Decision Theory *and* operationalising Habermas' Theory of Communication Action in ways similar to that outlined by de Reuck, Schmidenberg & Klass (2003) it is argued that the facilitation team would enhance the likelihood of achieving the revised goals of the 'best bet' outcomes and a corresponding obligation to act.

It is recognised that in seeking to achieve the above, this places extremely heavy demands on the facilitation of the process, far beyond that which is discussed in the existing Decision Conference literature. However, it is argued that the benefits of successfully managing this process will be seen in the outcomes in terms of creativity, enhanced decision quality and obligation of the individuals to act on the outcomes.

In summary, it has been argued in this section that in many ways Decision Conferences may be interpreted as a form of complex adaptive social system, thus implying that an awareness of the characteristics of CES and the associated implications for practice potentially changes the ways in which a facilitating team might work with decision-making groups. However, it is suggested that this approach also needs to be integrated with the concepts based on Habermas' notion of Communicative Action discussed by de Reuck, Schmidenberg & Klass in a number of their papers (e.g. de Reuck, Schmidenberg & Klass 2003; de Reuck, Schmidenberg & Klass 2002; de Reuck, Schmidenberg & Klass 2000b; de Reuck, Schmidenberg & Klass 2000a) and further reinforced in this study.

Taken together, principles drawn from these areas form the key facilitation requirements to ensure Quality Facilitation Practice (QFP) in relation to the practice of Decision Conferencing. Whilst this is a new term developed in this thesis to

encompass all of the elements of facilitation discussed in this study, QFP is not necessarily seen as a new concept. Rather it is a means of making explicit the requirements for sound group facilitation practice within the area of Decision Conferencing. Essentially QFP captures what a good facilitator would do in most group facilitation circumstances, even without conscious knowledge of all of the elements. However by making this explicit, it is argued that this heightens the likelihood that gaps in practice can be filled.

A further observation is that incorporating the notion of QFP complements the existing underlying Decision Theoretic base in the pursuit of the proposed revised goals for Decision Conferencing i.e. the achievement of the highest quality decision possible and thus ties in and supports the development of an obligation to act on the decisions made, as discussed in the previous section. In effect, it is suggested that by complementing reasoned discourse as discussed in the previous section with the principles of complexity presented here, enhanced decision quality and a further strengthened form of procedural legitimation may be achieved.

The following section explores the Quality Facilitation Practice (QFP) concept further, providing specific recommendations regarding the facilitation of the Decision Conferencing process based on the findings in this study. Given the context of the study, this model will be especially relevant to the application of Decision Conferencing within public sector organisations.

7. 7 Quality Facilitation Practice (QFP)

Quality Facilitation Practice (QFP) encompasses the best practice components required for high quality facilitation of group decision making, with a focus on the Decision Conferencing context.

As discussed earlier, in presenting the revised model of Decision Conferencing, the aim here is to provide a process of social enquiry that allows the final decisions taken by the group to attain the highest quality possible for that group at that time (also refer de Reuck, Schmidenberg & Klass 2000a: 8), engendering an obligation to act within those involved in the process. This presents a number of implications for the practice of Decision Conferencing for both those facilitating the process and for their clients.

Drawing together the findings from the study and the earlier discussion concerning possible contributions from the Theory of Legitimation and Complex Adaptive Systems theory, following is a list of suggestions in those areas seen as most salient to ensure QFP in the practice of Decision Conferencing.

1. Understand the Various Theoretical Bases

In terms of theoretical principles, in order to operationalise the concepts discussed in this study, the Decision Conference facilitation team would need to possess the following:

- An awareness of the underlying decision analytic theoretical base on which the computer modeling is run. A deeper understanding of this is required by at least one member of the facilitating team.
- An understanding of the theories of social power and the potential this has to enhance group performance, as well as an awareness of the dysfunctional effects of various forms of power plays within groups.
- A cognizance of Communication Theory.
- Some insight into the principles embodied in the CAS (or CES) theory.

2. Develop Specific Skills

As well as having an understanding of the above theoretical underpinnings, successful facilitation requires a specific skill base. This would include:

- An understanding of argument construction, evaluation and analysis (de Reuck, Schmidenberg & Klass 2003, and also supported in this study).
- Knowledge of group dynamics and the ability to translate this into practice.
- Strong interpersonal skills, ability to handle conflict constructively.
- In terms of the computer modeling, the ability to communicate complex concepts in a clear manner (this in turn requires a deep understanding of the modeling process, the software being used and the underlying theory). Effectively the modeling should become background, with people focused on content rather than what the 'black box' is doing. The facilitator needs to be able to demystify the modeling process.

- Clarity of written expression, strong written skills.
- A level of comfort with uncertainty and the tensions that can be created through strong debate and argumentation.

3. Understand the Organisation

Further to the individual skills identified above, the facilitating team needs to gain a sound understanding of the organisation they are working with in terms of the usual decision-making process, culture, pressures and key players. This may involve meeting not just with the client, but also with a handful of those who will be participating in the process – and maybe some who won't be.

Ultimately this step may even impact on the decision regarding whether the application of Decision Conferencing is appropriate in this context.

4. Preparation for the Decision Conference

Preparation for the Decision Conference emerged during the interviews as playing an important role in subsequent perceptions concerning decision quality as well as facilitating the overall flow of the Decision Conference process. Some key suggestions here include:

- *Gather the background information:* In adopting the process recommended earlier, participants will need to be prepared during the workshop sessions. This requires understanding the issues to be addressed, gathering available information, having considered the issues prior to the conference.
- *Reduce perceived exclusivity and enhance internal communication*: Purposefully managing communication regarding the process to those who will not be directly involved during the actual Decision Conference workshop(s) is vital. Depending on the organisation this may also involved running a number of pre-conference workshops gathering input from the various stakeholder groups e.g. through use of other GSS such as MeetingWorks and GroupSystems.

  It is critical that some way of involving non-participants is devised to reduce perceptions regarding elitism and to reduce conflict/divisiveness.

> …when you restrict the debate as you will do in Decision Conference to a dozen or so people, but you've got many more than that involved in the decision making as a whole, it is difficult to get keep everybody on board. N049 P105

Overall, the key to reducing the negative perception of the Decision Conference process held by outsiders is seen as largely a function of gaining wider involvement & ownership from across the organisation. Suggested means for achieving this include:

- Carefully considering the makeup of the Decision Conference group, perhaps involving representatives from the various stakeholder groups.
- Enhanced communication to non participants regarding the process and associated outcomes.
- Not quarantining the areas where stakeholder groups are able to submit bids or suggested courses of action (depends on the nature of the Decision Conference).
- Instigating a review mechanism after the Decision Conference.
- Ensuring that the Decision Conference is not seen as something happening in isolation from other decision processes within the organisation.

5. Embed the Decision Conference within the Overall Decision-Making Process

The Decision Conference should not be seen as an isolated 'event' but rather as part of the ongoing decision-making process.

6. Ensuring Relevance and Comprehension of Criteria

In identifying the criteria which are both important to the decision makers and which will also assist in differentiating or ranking of options, the following steps are important to consider:

- *Ensure all Participants Understand the Criteria:* As de Reuck, Schmidenberg & Klass (2003) note, this is a communicative issue. The criteria need to be both

comprehensive and the meanings clearly understood and agreed by the participants.

Phillips (2000a) includes in his presentation of the Decision Conferencing process a comparison of 'gut feel' with the model. Experience suggests that this is one possible approach to surfacing the discomfort that sometimes accompanies the fact that not all of the important or relevant criteria have been included. As de Reuck, Schmidenberg & Klass (2003: 9) note:

> Dissatisfaction at the decision point may indicate an inadequately surfaced criterion that when addressed resolves the dissatisfaction.

- *Match Criteria with Strategic Objectives:* Another approach that may enhance the perceived relevance/validity of the criteria for evaluating alternatives and thus confidence in the decision quality would be to ensure that the criteria matched up with the strategic objectives of the organisation. This also ties in with work by Klass (1999).

  These links with the strategic direction of the organisation would potentially provide additional benefits such as the development of a strategic view, thus impacting on subsequent decision making. This is often a specified outcome requested in management training i.e. the ability to think more strategically and holistically about the organisation when making decisions and thus would be a strong benefit for those participating in such a process.

- *Those involved in the Decision Conference have input to the Criteria used:* Following on from the above, it is important that those involved in the Decision Conference also have significant input regarding the criteria generated to evaluate the various options.

7. Focus on Quality Debate and Discussion

A key aspect is optimizing the epistemic quality of the decision outcomes for the group is through a clear focus on discussion and debate. Specific suggestions include:

- *Careful Management of the Decision Points:* Another approach that may enhance the perceived relevance/validity of the criteria for evaluating alternatives

and thus confidence in the decision quality would be to ensure that the criteria matched up with the strategic objectives

This step also involves an awareness of the dangers of the alpha argument (de Reuck, Schmidenberg & Klass 2003: 11). This is an argument that seems to build up momentum and can lead a premature finalisation of the decision.

> As debate unfolds, its early patterns of coherence and cohesiveness derive chiefly from the structuring of the conversation that comes largely from its logical sequencing. The first emerging argument tends to build up a momentum of commitment within the group that can develop its own momentum.
>
> (de Reuck, Schmidenberg & Klass 2003: 11)

Objections to the argument are often only half formed and tend to be dismissed too easily. This situation can be exacerbated by the time restrictions surrounding the usual Decision Conference and evidence of this can be found in this study. The authors suggest that timely break-outs can help to invigorate counter arguments, giving people time to reflect and to revitalize the debate.

- *Create an Open and Flexible Environment:* The key to enhanced decision quality is the generation of a productive discussion. This can only take place through the creation of the appropriate environment, open discussion, sufficient time possessing a clear focus or common goal (sometimes externally imposed as in this case and when that external imperative was removed, commitment seemed to collapse) and with the help of a skilled facilitator
    - Ensure all participants are fully involved, both through their designated role and through the facilitation process.
    - Allow sufficient time to explore options; discuss issues and explore the impact of various approaches.

8. Address Power Issues

This area builds on the previous points made regarding the quality of the debate. The following steps are recommended in order to impede dominating power within the workshop and to encourage the development of positive a decision making environment as possible. This is similar to Peirce's notion of aspects of social power.

- *Commitment to Mutual Respect*: de Reuck, Schmidenberg & Klass (2000a: 9) discuss the notion of epistemic respect and suggest that to deal with a covert resistant receivership here they suggest:
    - Render the conversation authentically open.
    - Get the executive group to rethink their roles of the conversation.
    - Undermine the perceived zero-sum logic of the conversation.

  Common to all the above is a reciprocal epistemic respect one for another. In essence this is similar to creating Peirce's notion of a community of inquirers (Short 2001).

- *Perspicuity of Facilitation*: So much perceived power rests with the facilitator that the facilitating team needs to be clear from the outset regarding their roles and to be open to challenge at any point. Without trust in the facilitating team the process would be untenable. Specific points include:
    - Being clear about the process to be adopted, particularly with respect to power issues and the importance of open debate and discussion. Some organisations may therefore decide this is not appropriate for them.
    - Be open to challenge and discussion regarding the process. The process also needs to be seen to be open and transparent in order to provide procedural legitimization.

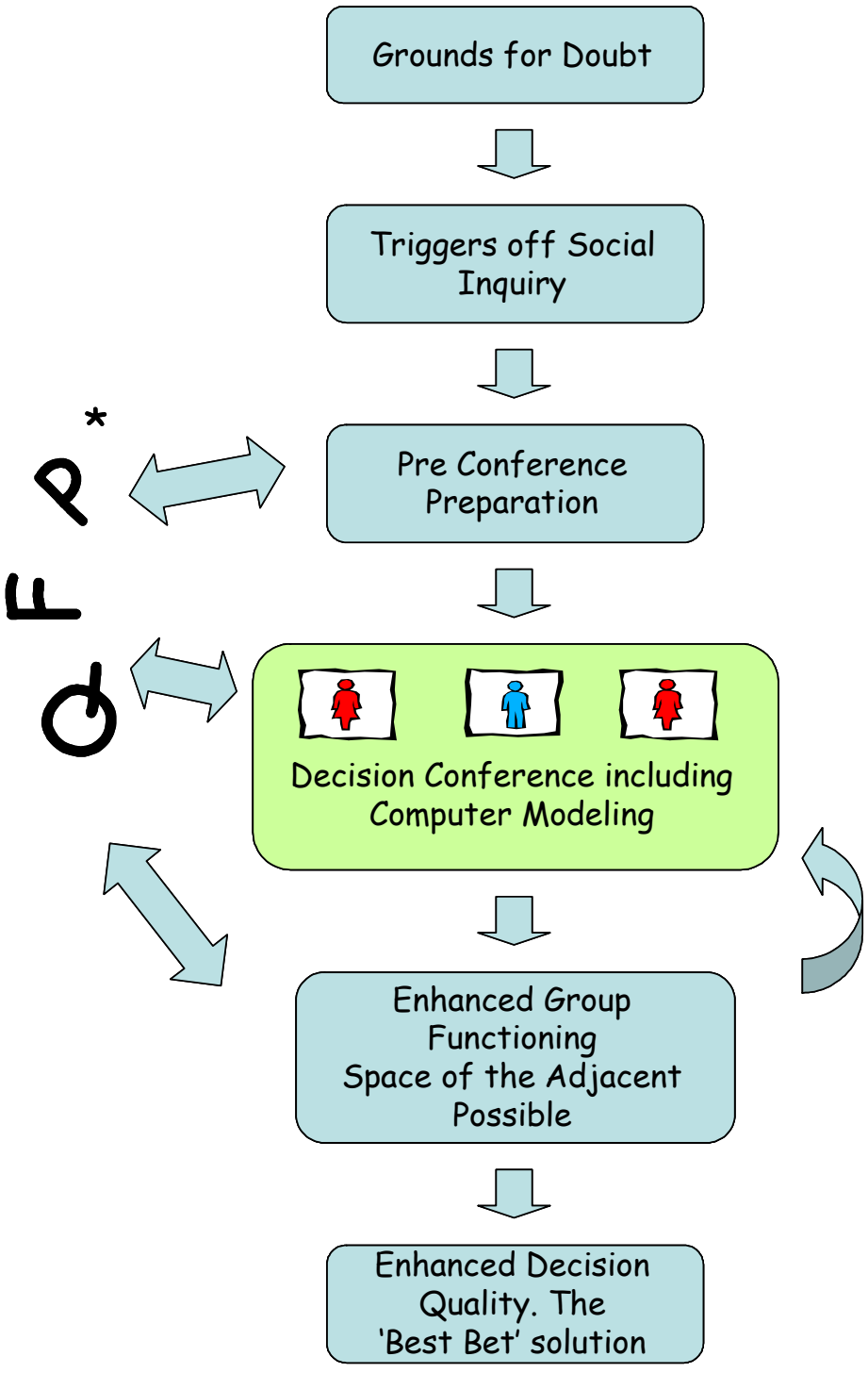
By implementing the above suggestions, it is argued that this would not only work towards the achievement of the revised goals of Decision Conferencing, but also help to counteract some of the dysfunctional behaviours of groups as discussed in Chapter Two e.g. conformance, member dominance, deindividuation and group polarization.

7. 8 A Revised Model for Decision Conferencing

Taking into account the preceding discussion regarding Quality Facilitation Practice (QFP), the incorporation of Complex Evolutionary Systems (CES) principles and the need to focus on Decision Quality as a higher order goal, the following revised model for the practice of Decision Conferencing is therefore proposed (see Figure 7-2).

The first stage in this model is the emergence of grounds for doubt or denial of the current accepted truth or status quo. This may be initiated internally or via an external change. Following on from Peirce's (Potter 1992; de Reuck, Schmidenberg & Klass 2003) assertion that doubt drives inquiry, this emergence of uncertainty then triggers a process of inquiry in the search for a solution.

Figure 7-2 A Revised Model for Decision Conferencing



*QFP: Quality Facilitation Practice

Peirce's theory of knowing as a process of continuous inference is built on three ideas: the notions of truth, reality, and the community of inquirers, which together permit an acknowledgment of objective values while emphasizing a heuristic concept of truth. Essentially, Peirce identified truth with that which inquirers will ultimately agree upon, however this does not necessarily mean consensus (Short 2001). Indeed, Peirce rejected such forms of pressure and authority as inimical to social and scientific inquiry. As Short (2001: 301) notes in discussing Peirce's views:

> The only agreement that counts as a mark of truth is uncoerced agreement.

Having triggered the inquiry and assuming that the organisation chooses to utilise the Decision Conferencing process to address the issue, the next step in the process is the Pre-Conference Preparation. As can be seen from the diagram, this is an iterative step with the QFP, in that the facilitator will be involved in working with the organisation to maximise their potential to ultimately enhance the overall Decision Quality. Preparatory work here may include but is not limited to the specification and collection of data and information required for the modeling process, examining how the process fits in with existing decision making structures and potentially incorporating additional stages for data gathering or incorporating various stakeholder group inputs. The client organisation and the facilitator(s) would work together in determining the best way to prepare for the Decision Conference Workshop.

As evidenced by the double-headed arrow, this Pre-Conference preparation will also inform the QFP and the subsequent facilitation of the Decision Conference Workshop.

The double-headed arrow connecting the Decision Conference Workshop and the QFP indicates that that each will impact on the other. What takes place during the workshop will inform the facilitator(s) judgement concerning the best way forward and the QFP (in terms of the specific skills discussed earlier) is focused on ensuring that the group functions at the highest level possible to achieve the ultimate goal of enhanced Decision Quality.

This revised model thus provides the platform for the inquiry and decision making to take place. The process is supported through the integration of the computer modeling and QFP, with the handling of each aspect well supported by careful

consideration of the theoretical and practical implications discussed in this chapter. Through this process it is then possible for the group to achieve the best epistemic outcome possible for *that* group at *that* time.

It is also possible that as a consequence of the approach recommended here, both the process and the outcome thus create an obligation to act on the outcome. However, as indicated earlier, as this concept is perceived as equally problematic in terms of measurement and confounding factors as that of commitment to act, this has not been included as a formal element of the revised model.

7. 9 Conclusion

The Decision Conferencing literature suggests that the Decision Conferencing process is a direct one with clear relationships between computer modeling, shared understanding and commitment to action.

This theory-building research demonstrated that the interface between these concepts is more complex than the literature suggests and in addition, that the concepts themselves are problematic.

Shared understanding is essentially a dependent variable, with factors such as comprehension of the modeling process impacting on the degree to which this is developed. If it is to be retained as a goal of Decision Conferencing for public sector applications, then those factors need to be addressed by the facilitator.

Many aspects of commitment fall outside of the domain of the Decision Conference workshop e.g. the individual's sense of responsibility and degree of commitment to their profession, the degree of his or her commitment to the group and to the organisation. The idea of commitment appears to fall more into the arena of managerial responsibility and change management and it is partly how the outcomes are managed after the Decision Conference which will be crucial to their implementation. Within this study it appears that the most a Decision Conference can offer is the 'buy-in' or constructive involvement of the individual participant; the assurance of an unassailable case to which all participants have contributed, for the adoption of the outcomes, and the confidence in the outcomes that this brings.

All of this suggests that a higher order goal which subsumes these factors should be considered when re-conceptualising the Decision Conferencing experience. It is

suggested here that Decision Quality is a more appropriate goal for the Decision Conferencing process. In essence this is an expansion of the existing 'best bet' concept already endorsed in the Decision Conferencing literature. The chapter then presented a number of conditions for assuring decision quality e.g. a democratic environment for decision making, mutual respect and an encouragement of diversity.

It is also argued that it falls to the facilitator to encompass all of these factors. It is appropriate then to consider an alternative conceptualization of Decision Conferencing which facilitators of public sector groups might adopt. This revised conceptualization is drawn from complexity theory. Incorporating the above a more strongly theorised facilitation approach, entitled Quality Facilitation Practice (QFP) has been developed.

Taking into account all of the above a revised model for Decision Conferencing in the public sector is presented, incorporating both QFP and the higher order goal of Decision Quality. It is also suggested that this may in turn engender a responsibility or obligation to act on the outcomes, however as this is as problematic in terms of measurement and confounding factors as commitment this has not been included as a formal element of the revised model.

The next chapter concludes this dissertation. Opening with an overview of the thesis, Chapter Eight examines the limitations of the study, presents an overview of the major contributions made and highlights further possible research directions. Chapter Eight concludes by returning to the evaluation principles first highlighted in Chapter Three: Research Method and Design, outlining the manner in which these have been adhered to in this study.

8 CHAPTER EIGHT: CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH

8. 1 Introduction

This thesis presented eight chapters each with its own focus in terms of the research questions. Chapter One laid the foundations for this dissertation. It introduced the research problem and associated research questions. Chapter Two followed with a comprehensive review of the literature and relevant research associated with the central question, indicating the gaps in the literature which formed the genesis for this study. This chapter also acted as a more detailed source for the definitions of key concepts.

The basic argument that emerged from Chapter Two was that while Decision Conferencing itself is potentially useful to groups making decisions, the process rests on the unsupported key premise that the computer modeling, which forms an intrinsic part of the process, leads to shared understanding and commitment. The application of Decision Conferencing to important organizational issues continues, yet its fundamental premise was both empirically unsupported and potentially under-theorised.

Chapter Three turned to the central research question and presented the case for the design and methods adopted. Having addressed the conceptual foundations for this study, including an examination of the specific ontological and epistemological perspectives underlying this particular investigation, Chapter Three reviewed the various research traditions related to Group Support Systems (GSS) in general and Decision Conferencing in particular, placing the research in context.

The rationale behind the choice of cases and individual participants was presented followed by a meticulous description of the data collection and analytical procedures presented. The chapter closed with a discussion of a set of guiding principles suggested for the evaluation of this study, reviewed possible limitations to the approach chosen and addressed relevant ethical issues.

Chapter Four presented an overview of the key findings drawn from the quantitative data in terms of the central questions being addressed in this study i.e. the pivotal Decision Conferencing concepts of commitment and shared understanding and an

examination of possible links with computer modeling. Chapter Four again emphasised that the quantitative data was largely seen as an opportunity to inform the main study which focused on the qualitative data analysis.

Chapters Five and Six presented the findings drawn from the qualitative data for Case 1 MBC and Case 2 DC. Both chapters began by presenting the background to the Decision Conference in question, including the background to the case, a detailed discussion of the analysis and associated findings drawn from the in-depth interviews conducted with participants. This included the presentation of key concepts and themes that emerged from the data. Each chapter then focused directly on the findings as they related to the research questions and closed with a summary of the Decision Conferencing experience as described by participants.

In addressing the research questions and the implications of the study outcomes, Chapter Seven first turned to a discussion of the conclusions relating to the quantitative data (Chapter Four) and to each of the qualitative cases (Chapters Five and Six). This was followed by a comparison of the case findings and of the qualitative and the quantitative data.

The conceptual ramifications of the conclusions drawn were then discussed, including the presentation of the suggested *Revised Model for Decision Conferencing*. This was followed by a discussion of the implications of the findings for the practice of Decision Conferencing.

This final chapter (Chapter Eight) opened with an overview of the key elements of this thesis. The remainder of this chapter examines the limitations of the study, presents an overview of the major contributions made and highlights further possible research directions.

Chapter Eight concludes by returning to the evaluation principles first highlighted in Chapter Three: Research Method and Design, outlining the manner in which these have been adhered to in this study.

8. 2 Limitations

Section 3.11: Limitations (Chapter Three: Research Method and Design) addressed the major constraints on the research that were a deliberate part of the research design e.g. observations regarding the design of this study including issues such as

the appropriateness of a mixed method approach, the nature and size of the sample and concerns regarding the application of findings to other contexts. Each of these was addressed in turn, outlining the rationale behind the choices made and indicating the careful consideration given to the overall design and method adopted within this study.

Rather than reiterating those arguments here, this section presents additional possible limiting factors that became apparent during the progress of the research.

1. *Cognitive Maps were created from transcripts*

As the maps were elicited from the transcripts, at times this resulted in a gap where a subsequent question should have been asked. For example, in analysing the map it became evident that while Concept A, led to the Concept B, led to Concept C…sometimes the conversation took off in another direction and this chain was lost. Given the ebb and flow of in-depth interviewing, even with an interview guide particular elements of a conversation are not always pursued to their natural conclusion. Whilst this was not a major problem with regard to the central research questions, it left some tantalizing uncertainties on individual maps. A possible way to address this for future research would be to:

- Map directly during the interviews, assuming the researcher has the requisite skills
- Alternatively, analyse the transcript almost immediately after the interview so that the participant can be contacted and gaps clarified

2. *The arrows connecting concepts do not indicate the strength of the link*

While the arrows within the cognitive maps indicate linkages and polarity, they do not indicate the strength of the various links. Within this study, this weakness has been accommodated through detailed descriptions, use of relevant quotations and indications of numbers of participants who specified various concepts and associated links. However, it is also possible within the Decision Explorer™ to define the nature of a link and to express this by applying different style to the links. In order to use this facility effectively, this option would need to be considered during the research design stage so that the interviews themselves captured a clear measure of the strength of the link or by designing coding systems that categorised statements accordingly.

3. *The issue of facilitation was not sufficiently explored in the quantitative survey*

Along with some of the other issues that emerged strongly from the qualitative findings, facilitation really needed to be more fully explored in the quantitative data. However, this reinforces the point made earlier i.e. that the Decision Conferencing literature does not adequately address this and other mediating roles in the process. The purpose of the quantitative data was to test the core tenet of the Decision Conferencing literature, namely the linear model implying that the use of computer modeling leads to a shared understanding of the issues and engenders a commitment to act on the decisions made. As such the quantitative study fulfilled its purpose.

8. 3 Contributions of this Study

This study has made a number of significant contributions to both the specific area of concern i.e. Decision Conferencing and in terms of research methodology. Specifically:

1. *Contribution to the Decision Conferencing literature*

Contributed to the literature on Decision Conferencing by providing empirical evidence in relation to the links that form the central tenets of Decision Conferencing. That is, there is a link between the modeling process which leads to shared understanding, which in turn leads to commitment. This was demonstrated in the quantitative analysis, which showed statistically significant correlations between modeling, shared understanding and commitment. Further the qualitative analysis, also revealed paths which connected these concepts. However, in addition to identifying the links, both the qualitative and the quantitative data also demonstrated that the Decision Conferencing process is a much less simple one than originally presented in the Decision Conferencing literature. The interface between the concepts is a complex one, many other factors are involved and the concepts themselves are problematic.

2. *A revised model for Decision Conferencing*

Development of a revised model with implications for theory and practice in Decision Conferencing. As indicated in Figure 7-2, this model demonstrates the cyclical nature of the Decision Conferencing process and the importance of a Qualitative Facilitation Practice (QFP).

3. Development of a rigorous analytical approach for qualitative data.

Contribution to qualitative research generally through the development and application of a rigorous analytical approach for qualitative data. The analysis, utilising both NVivo™ and Decision Explorer™, provides for a more thorough approach to analyse the qualitative data, through the development of a logical, structured approach and employment of the tools within Decision Explorer™ which support this analysis e.g. exploration of explanations and consequences, Domain and Central analysis, Path analysis, Hieset and Potency analysis and Cluster analysis.

4. Validated new measures for commitment

This study validated new measures for commitment within Decision Conferencing, which may also be used within other Group Model Building (GMB) applications. Given that they share similar goals to those expressed in the traditional Decision Conference model, the revised model may also have application in these alternative contexts. However, along with this is the caveat that the qualitative findings revealed commitment to be a multidimensional concept, not all of which appear to be captured by these measures, despite their reliability.

5. Possible transferability of concepts to other processes

While this study has focused on shared understanding and commitment in Decision Conferencing, they are concepts and corresponding measures which apply to many other management and IT processes (including requirements determination in systems development, business process redesign, and IS/IT planning) and these ideas and results may therefore have wider applicability.

8. 4 Implications for Researchers and Possible Further Research Directions

In discussing the implications of this study for researchers, this section draws on the limitations discussed above as well as those outlined in Chapter Three. Specific suggestions include:

1. Conduct a larger study to enhance generalisability

The case study approach is limited in terms of representativeness and generalisability. Only two cases were fully explored in the study (24 participants in total). The study was limited to public sector organisations within the United Kingdom. It may be possible to conduct a wider study, drawing on the findings here as a basis for future research. While the research contained a quantitative element,

this could be revised in the light of the study outcomes and distributed to a larger sample.

2. Apply the facilitation principles identified to other processes

This study only looked at one facilitation process – that used in Decision Conferencing. It would be beneficial to see if the implications for group facilitation were more widely applicable to other processes. While it is felt that the conclusions drawn regarding the facilitation process would be generalisable across different approaches and especially across various Group Model Building (GMB) approaches, this remains to be empirically evaluated.

3. Extend the study to other decision types

The primary focus for all except one of the Decision Conferences was resource allocation. Extending the study to other decision types may reveal different outcomes.

4. Apply the methodology to an examination of other decision-making processes

Apply the methodology developed in this study (including the mapping of interviews either directly or via transcripts) to an examination of other decision-making processes and see whether/how they achieve the same things i.e. shared understanding and commitment. An improved application of this methodology could take into account the issues identified earlier such as the benefits to be gained from direct mapping and refining the information provided by the connecting arrows e.g. to include detail regarding strength of the various links.

This study also highlighted the importance of a qualitative investigation in terms of richness and depth of understanding. The implication for researchers is clear in that one should be cautious in relying only on scale items to paint a picture of lived experiences.

5. Apply and evaluate the revised Decision Conferencing model

While a revised model has been proposed this would need to be applied and evaluated. In addition to this, it may be possible to apply the revised model to studies of other GMB approaches.

8. 5 Addressing the Principles for the Evaluation of this Study

As discussed in Chapter Three, the issue of research standards is a critical and contentious one in qualitative research. A common criticism is that it fails to adhere

to the canons of reliability and validity (LeCompte & Goetz 1982: 31). However, it may also be argued that it is within these differences from the positivist tradition that the value of interpretive research lies. These benefits include the data gathering that necessarily precedes hypothesis formulation or providing a depth of understanding lacking in other approaches. In concurring with Klein & Myers (1999), the point was made that while it is agreed that interpretive research does not subscribe to the idea that a pre-determined set of criteria can be applied in a mechanistic way, it does not follow that there are no standards at all by which interpretive research can be judged.

This study therefore adopted the set of seven principles outlined by Klein & Myers (1999) for the evaluation of interpretive field studies. It is these principles, which have been utilised in evaluating this study. Their application in this study is as follows:

1. The Fundamental Principle of the Hermeneutic Circle

   This principle acts as an overarching principle for all of those outlined below. The point here is that understanding has a circular structure. There is a formal relation between the parts and the whole of a phenomenon. Through an analysis of each part of the study, including each of the qualitative cases and the quantitative data, the meaning and relationship of these various sections have been reviewed and consolidated into an emergent understanding of participant perceptions of the Decision Conferencing process.

2. The Principle of Contextualization

   This principle "requires that the subject matter be set in its social and historical context so that the intended audience can see how the current situation under investigation emerged" (Klein & Myers 1999: 73). In fulfilling this requirement a detailed description was provided of the overall context for the study as well as an in-depth discussion of the context of the specific cases presented in the qualitative analysis in Chapters Five and Six. This included, but was not limited to, a description of the Decision Conference participants, the nature of the organisation and various facets of the organisational culture, its geographic region and the decisions to be made.

3. The Principle of Interaction Between the Researchers and the Subjects

   Klein & Myers (1999) maintain that the data in the study is not just something waiting to be picked up by an uninvolved participant, but rather that the interaction between the participants and the researcher is part of the whole process of investigation and understanding.

   The role of the researcher was made explicit at all times.

4. The Principle of Abstraction and Generalization

   As Stoeker (1993: 181) notes in regard to case studies:

   > ..while we can accurately specify the causal process within the case, generalizing is more difficult.

   However this does not mean that there is not a case for applying the findings to other circumstances. As Klein & Myers (1999: 75) note, "unique instances can be related to ideas and concepts that apply to multiple situations", however these generalizations and abstractions need to be made having given careful consideration to the study details and context when doing so. This principle of *naturalistic generalization* (Stake 1990) is closely aligned to Guba's (1981) notion of *transferability* - the extent to which the findings can be applied in other contexts or with other respondents. As discussed in Chapter Three, it is possible that outcomes may be generalized to other situations depending on the degree of *proximal similarity* (Campbell 1986).

   To enable the degree of similarity to be assessed, particular attention has been paid to this principle in the analysis and discussion of findings from this study. Contexts have been described in detail, assertions supported with findings from the study and the strength of support indicated where relevant. In applying this principle in a transparent and logical process, it has therefore been possible to achieve the following:

   - The development of revised concepts relating to Decision Conferencing.
   - Possible augmentation to the existing Decision Conferencing theory.
   - The drawing of specific implications for both practitioners and researchers.
   - The contribution of rich insight into the Decision Conferencing process.

The validity of inferences drawn here has relied not just on the statistical measures related to the quantitative data, but also on the strength of the logic in both the description of the cases and the conclusions drawn from them.

In terms of determining how broadly the findings may be applied, the primary strategy in this study was the provision of detailed descriptions along with comparisons between the quantitative and the qualitative theory and tying the whole back to the literature so that those interested in transferability will have a solid framework for comparison.

5. The Principle of Dialogical Reasoning

As the research design forms the 'lens' through which the data is viewed, this principle requires that the researcher be aware or 'confront' the preconceptions which guided the original study design. As discussed in Chapter Three, this is also part of the hermeneutic idea that our own backgrounds and 'pre-judgment' plays a role in how we come to understand phenomena. The Principal of Dialogical Reasoning requires that the researcher outlines the research approach and philosophical foundations of the study and is prepared to modify or abandon ideas that are not supported by the research findings.

Adherence to this principle required not only that the researcher's 'world view' be clearly presented as it was in Chapter Three, but also the development of a rigorous, logical and consistent approach to the qualitative data analysis and presentation of findings. In fact, the development of this approach has subsequently turned out to be one of the significant contributions of this study in terms of methodology.

In addition, any conclusions drawn or recommendations presented have consistently been supported through reference to the underlying data.

6. The Principle of Multiple Interpretations

This principle "requires sensitivity to possible differences in interpretations among the participants as are typically expressed multiple narratives of the same stories or the same sequences of events under study" (Klein & Myers 1999: 72). The presentation of multiple viewpoints and alternative perspectives is a characteristic of this principle and a feature of this study.

Again as discussed in Chapter Three, cognitive maps were created for each of the individual participants and these were also analysed individually prior to constructing composite maps of the Decision Conference experience. Additionally, the composite maps also contain details regarding where individual participants sit in reference to the various concepts to emerge. Differing accounts and perspectives have also been presented in the findings where relevant.

7. The Principle of Suspicion

   Influenced by the work of critical theorists such as Habermas and Foucalt, this principle may be described as not always taking the data at face value, but rather 'reading' the utterances for deeper meaning. As Klein & Myers (1999: 78) state:

   > (this approach) points the researcher to 'read' the social world behind the world of the actors, a social world that is characterized by power structures, vested interests and limited resources to meet the goals of various actors who construct and enact this social world.

   This principle, along with The Principle of Dialogical Reasoning, is about probing for deeper meaning and is most evident in the discussion of the findings and within the presentation of the conceptual implications of this study.

The preceding discussion outlines the seven principles presented by Klein & Myers (1999) and their application in this study. Note that the principles are inter-dependent and consequently need to be considered together in assessing the overall plausibility and cogency of the account. Nevertheless, each of these principles has been addressed in the development of this study.

While only briefly touched on in the above evaluation, the point is made that further support for the veracity of the work presented here is evident in the mixed method approach adopted and the findings, which emerged from a comparison of the differing data sources.

8. 6 Conclusion

The Decision Conferencing literature suggests that the Decision Conferencing process is a direct one with clear relationships between computer modeling, shared understanding and commitment to action.

This theory-building research demonstrated that the interface between these concepts is more complex than the literature suggests and in addition, that the concepts themselves are problematic. In addressing these findings, this study presented a revised model for the theory and practice of Decision Conferencing. Here the focus is on the epistemic quality of the decision and the associated engendering of an obligation to act on the outcomes.

Specific recommendations for practice have also been included, along with a clear foundation for further research, incorporating sufficient detail to provide guidelines for a future research agenda.

Specific contributions of this study include:

- A clear contribution to the Decision Conferencing literature through the provision of empirical evidence in relation to the links that form the central tenants of Decision Conferencing.
- Development of a revised model with implications for theory and practice in Decision Conferencing.
- Contribution to qualitative research generally through the development and application of a rigorous analytical approach for qualitative data.
- Validated new measures for commitment within Decision Conferencing, which can also be used within other Group Model Building (GMB) applications.
- Possible transferability of concepts to other management and IT processes (including requirements determination in systems development, business process redesign, and IS/IT planning).

This study has therefore made a number of significant contributions to both the specific area of concern i.e. Decision Conferencing and in terms of research methodology. It also provides direction and scope for future research from both a conceptual and practical perspective.

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APPENDIX A QUANTITATIVE SURVEY INSTRUMENT

QUESTIONNAIRE

The Questionnaire

The questionnaire takes place at the end of the face to face interview.

Ask participants to fill it in then and there (anticipate 10 minutes at the most).

The questionnaire has three parts. Each will be given to the person for completion and collected before moving on to the next part.

As each part is handed to the participant discuss briefly what it is asking and discuss the key concepts i.e. outcome and computer modeling

Part A (1 side A4 sheet):	Mostly a measure of commitment to outcomes **directly after** the Workshop (need to try and recall how they felt at that time).
Part B (1 side A4 sheet):	Mostly a measure of commitment to outcomes **at current point in time.**
Part C (1 double sided A4):	General questions re Workshop and focusing on computer modeling as it relates to shared understanding and commitment

Remind participants that they may ask questions/make comments as they complete the questionnaire.

PART A: IMMEDIATELY AFTER THE WORKSHOP

As discussed, questions in this section refer to the way you thought or felt **immediately after the Workshop.** Please indicate the extent to which you agree with the following statements where 1 indicates that you strongly disagree with the statement and 7 indicates you strongly agree.

		Strongly Disagree						Strongly Agree
1.	I was strongly committed to pursuing the implementation of this outcome	1	2	3	4	5	6	7
2.	I was willing to put in a great deal of effort in order to implement the outcome of the Workshop	1	2	3	4	5	6	7
3.	Quite frankly, I didn't care if we implemented this outcome or not	1	2	3	4	5	6	7
4.	There wasn't much to be gained by trying to implement this outcome	1	2	3	4	5	6	7
5.	At the time, it was quite likely that this outcome would need to be revised, depending on how things went	1	2	3	4	5	6	7
6.	I felt it wouldn't take much to make me abandon the choice of this outcome	1	2	3	4	5	6	7
7.	I thought it was unrealistic for us to expect to implement this outcome	1	2	3	4	5	6	7
8.	Since it wasn't really possible to tell how tough this outcome was to implement, it was hard to take it seriously	1	2	3	4	5	6	7
9.	I thought this outcome represented a good package to aim for	1	2	3	4	5	6	7
10.	I was sure that we made the right decision in choosing this outcome	1	2	3	4	5	6	7
11.	I was confident about our decisions relating to this outcome	1	2	3	4	5	6	7
12.	I felt it would take quite a bit to get me to change my mind about the decision we made	1	2	3	4	5	6	7
13.	I felt personally responsible for seeing that the outcomes of the Workshop were implemented	1	2	3	4	5	6	7
14.	I felt personally committed to the outcomes of the Workshop	1	2	3	4	5	6	7
15.	I intended to defend the conclusions to other people in the organisation	1	2	3	4	5	6	7
16.	I believed that the decisions taken were the 'best bet' at the time	1	2	3	4	5	6	7
17.	At the time I believed that the Workshop helped me to really understand the issues being discussed	1	2	3	4	5	6	7

		Very Unattractive						Very Attractive
18.	Please indicate how attractive it was for you to successfully put in place the outcome of the Workshop	1	2	3	4	5	6	7

19. Please indicate what you thought the group's chances were of implementing the outcome. Enter a number between 0 (no chance) and 100 (complete certainty) which best describes what you thought the probability of implementing this outcome was.

PART B: CURRENT PERCEPTIONS OF THE WORKSHOP

Questions in this section refer to the way you think or feel **now** or **just prior to complete implementation of the outcome**.

20. To approximately what extent has the outcome of the Workshop been implemented? Enter a number between 0 (not started) and 100 (completed).

Following are a list of statements referring to the main outcome of the Workshop as discussed in the interview. Please indicate the extent to which you agree with the following statements where 1 indicates that you strongly disagree with the statement and 7 indicates you strongly agree.

	Strongly Disagree						Strongly Agree
21. I am strongly committed to pursuing the implementation of this outcome	1	2	3	4	5	6	7
22. I am now willing to put in a great deal of effort in order to implement the outcome of the Workshop	1	2	3	4	5	6	7
23. Quite frankly, I don't care if we implement this outcome or not	1	2	3	4	5	6	7
24. There isn't much to be gained by trying to implement this outcome	1	2	3	4	5	6	7
25. It is quite likely that this outcome may need to be revised, depending on how things go	1	2	3	4	5	6	7
26. I feel it wouldn't take much to make me abandon this outcome	1	2	3	4	5	6	7
27. I think it is unrealistic for us to expect to implement this outcome	1	2	3	4	5	6	7
28. Since it isn't really possible to tell how tough this outcome is to implement, it is hard to take it seriously	1	2	3	4	5	6	7
29. I think this outcome represents a good package to aim for	1	2	3	4	5	6	7
30. I am sure that we made the right decision in choosing this outcome	1	2	3	4	5	6	7
31. I am confident about our decisions relating to this outcome	1	2	3	4	5	6	7
32. It would take quite a bit to get me to change my mind about the decision we made	1	2	3	4	5	6	7
33. I feel personally responsible for seeing that the outcomes of the Workshop are implemented	1	2	3	4	5	6	7
34. I feel personally committed to the outcomes of the Workshop	1	2	3	4	5	6	7
35. I intend to defend the conclusions to other people in the organisation	1	2	3	4	5	6	7
36. I believe that the decisions taken are still the 'best bet'	1	2	3	4	5	6	7
37. The Workshop helped me to really understand the issues being discussed	1	2	3	4	5	6	7

	Very Unattractive						Very Attractive
38. Please indicate how attractive it is now for you to successfully put in place the outcome from the Workshop	1	2	3	4	5	6	7

39. Please indicate what you now think the group's chances are of implementing the outcome. Enter a number between 0 (no chance) and 100 (complete certainty) which best describes what you think the probability of implementing this outcome is

PART C: GENERAL QUESTIONS REGARDING THE WORKSHOP

Thinking about the Workshop in general, for questions 40 to 70, please indicate the extent to which you agree or disagree with the following, where 1 indicates that you strongly disagree with the statement and 7 indicates you strongly agree.

	Strongly Disagree						Strongly Agree
40. The modeling process helped me to really understand the issues being discussed	1	2	3	4	5	6	7
41. The modeling process provided insight into the opinions of other participants	1	2	3	4	5	6	7
42. The modeling process aided in explaining my ideas to others	1	2	3	4	5	6	7
43. The modeling process assisted in developing my understanding of the opinions of other participants	1	2	3	4	5	6	7
44. A shared understanding of the issues was reached by the end of the Workshop	1	2	3	4	5	6	7
45. The modeling process effectively creates a shared understanding of the issues	1	2	3	4	5	6	7
46. Being able to test out differences of opinion in the modeling process (e.g. regarding estimated weights) helped me to develop a deeper understanding of the issues being discussed	1	2	3	4	5	6	7
47. The group as a whole supported the outcome of the Workshop	1	2	3	4	5	6	7
48. Complete agreement was established on the outcome of the Workshop	1	2	3	4	5	6	7
49. At the time of the Workshop I believed that the organisation was capable of implementing the outcome of the Workshop	1	2	3	4	5	6	7
50. At the time of the Workshop the other participants believed that the organisation was capable of implementing the outcome of the Workshop	1	2	3	4	5	6	7
51. The organisation needed to make a lot of changes for it to be capable of implementing the outcome of the Workshop	1	2	3	4	5	6	7
52. The graphical displays from the modeling made the issues much clearer	1	2	3	4	5	6	7
53. The model was the result of the integration of the ideas of all participants	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
54. Group model building leads to plans that will be loyally implemented	1	2	3	4	5	6	7
55. I found some parts of the computer modeling process hard to understand	1	2	3	4	5	6	7
56. Displaying the results of discussion in a model developed a better understanding of the points being discussed	1	2	3	4	5	6	7
57. The process of building the computer model provided a rational approach to the decision making	1	2	3	4	5	6	7
58.							
59. Being able to test out differences of opinion (e.g. regarding estimated weights) on the model made me feel more confident about the final outcomes	1	2	3	4	5	6	7
60. The modeling process clearly demonstrated which solutions/ packages were obviously better than others	1	2	3	4	5	6	7
61. The computer modeling provided immediate feedback regarding the implications of what we were suggesting (e.g. changing weights, altering preference judgments etc.)	1	2	3	4	5	6	7
62. Discussions in the sessions were dominated by a few people	1	2	3	4	5	6	7
63. Differences of opinion were fully explored	1	2	3	4	5	6	7
64. The facilitators helped me to structure my thinking	1	2	3	4	5	6	7
65. In general, all group members were involved in the process	1	2	3	4	5	6	7
66. Everyone had an equal opportunity to be involved in the Workshop	1	2	3	4	5	6	7
67. My comments had a significant influence on the group decision making	1	2	3	4	5	6	7
68. The outcome of the Workshop has influenced my actions	1	2	3	4	5	6	7
69. The Workshop generated tangible actions which I could follow up	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
70. In general, developing a shared understanding of the issues leads to commitment to the outcome	1	2	3	4	5	6	7
71. I would use this particular Workshop process again for a similar task	1	2	3	4	5	6	7

END OF QUESTIONNAIRE. THANK YOU FOR YOUR TIME!

APPENDIX B QUALITATIVE INTERVIEW GUIDE

INTERVIEW GUIDE

Following is the Interview Guide for the face to face interview.

Introduction and Overview

Introduce myself (Margot Wood, Curtin University of Technology etc.) and outline the nature of the study and that they should feel free to ask questions etc. as we are going along. Ask permission to audio-tape responses. All replies will be in strict confidence. Names of individual participants will not be disclosed and results will be presented in such a way as to protect the interests of the individuals involved.

The purpose of this interview is to talk to you about your perceptions of the Workshop you were part of with Tim Morgan from ICL *(or whoever the group worked with)*. In particular I would like to focus on your perceptions of the computer modeling process used in the Workshop, so most of the questions I will be asking revolve around that.

(The following definition is flexible. May need rewording and simplifying. E.g. Modeling refers to the process that led to the diagram of the costs and benefits)

The term *Computer Modeling* refers specifically to the use of the computer program during the Workshop. Broadly, steps in the computer modeling would have involved defining the options and the criteria used to evaluate these; rating the options on each criterion, assessing the relative importance of the criteria; doing an overall evaluation of the options and conducting sensitivity analysis (e.g. 'what if' scenarios). You may want to consider some of these things as we talk about the Workshop.

INTERVIEW GUIDE

SHARED UNDERSTANDING

1. A shared understanding is reached when members come to understand other participants' position regarding the issues being addressed, although they don't necessarily all agree. Did you feel that the group had reached a shared understanding? Why is that? (PROBE for what helped/hindered here, examples where a shared understanding was reached etc.)

2. What would you say were the main things that helped to develop a shared understanding regarding the issue? (PROBE)

3. What do you think about the group discussion in the Workshop as compared to other meeting processes you've participated in? (PROBE for thoughts on quality of discussion. Did modeling affect the substance of the discussion?)

4. Do you feel the modeling process impacted on your understanding of how other people in the group felt about the issues being discussed?

5. Can you give me an example? (PROBE for specific elements of the process the person feels did/didn't help to achieve this)

6. Did you find the modeling process difficult to follow at any time? (PROBE for specifics, any points at which they felt a bit confused/intimidated etc.)

7. What about the others in the group – do you think everyone understood what was happening during the computer modeling? (PROBE for details and the impact this may have had on shared understanding and the final outcomes)

8. What do you think of the level of involvement of the group in the modeling process? (PROBE to see whether they feel the modeling incorporated the various viewpoints)

9. In your opinion did the modeling process help the group overall in reaching a shared understanding? (PROBE for details)

COMMITMENT TO OUTCOMES

10. The main outcome from the Workshop was to _____ (depends on Decision Conference – it may have been to downsize the organisation through the implementation of a specific resource allocation package. Be aware that there will have been other outcomes.)

11. How do you feel about this outcome?

12. Would you say that you feel personally committed to the courses of action indicated by the outcome of the Workshop? (PROBE to see if they are more or less committed than they were directly after the Workshop and why).

13. What made you feel committed/not committed to this outcome? (PROBE for reasons)

14. Did (do) you have any personal reservations about the outcome? (PROBE to see if these have been resolved, is this outcome the best way to achieve this strategy; likely impact of their reservations on implementation etc.)

15. To what extent do you feel responsible for the outcome decided upon by the group? (PROBE)

16. How do you think the other group members felt about this outcome?

17. Do you think that computer modeling process affected your level of confidence in the outcome of the Workshop? (PROBE for reasons)

18. Would you say that the modeling process impacted on your commitment to the outcome? (PROBE: If so, in what way and how was this achieved? Ask for examples – what elements/points in the modeling impacted on commitment. If not, why do they think this was the case?)

19. Earlier you said that you felt that a shared understanding was/wasn't achieved – do you think this may have affected your overall level of commitment to the outcome? (PROBE)

20. Do you think it affected the group's overall level of commitment to the outcome? Why is that?

21. Do you consider this to be a relatively cohesive group? In general, do you consider commitment to the organisation to be high amongst the group?

FACTORS AFFECTING COMMITMENT

22. What do you think about the feasibility of implementing this outcome? (PROBE for reasons and possible problems in implementing)

23. Do you think the other group members' believe/believed the outcomes could be implemented? (PROBE)

24. Given that (i.e. yes they do, or no they don't etc.) do you think there was a general willingness to implement this outcome? (PROBE)

WORKSHOP – GENERAL

25. Were your expectations of the Workshop met? (PROBE for what their expectations were; reasons why met/not met etc.)

26. Based on your experience, what would you say are the strengths of the Workshop?

27. What about weaknesses?

28. Was there anything else about the Workshop that you would like to comment on?

GENERAL BACKGROUND INFORMATION

Now just a few questions about you. Your identity will remain anonymous in the reporting of results. This information will be used in aggregate form only. (** To be completed prior to interview. May not need to ask)

29. Organisation Name**: _____

30. Workshop Date**: _____

31. Workshop Location**: _____

32. Type of Workshop**: _____

33. Software Used**: _____

34. Notes re Outcome:** _____

35. Number of Participants**: _____

36. Facilitator & Analyst(s)**:_____

37. Participant's Name**: _____

38. Position in the Organisation: _____

39. How long have you worked with the organisation? _____

40. Age Group

15 - 20 1
21 to 29 2
30 to 39 3
40 to 49 4
50 to 59 5
over 60 6
refused 7

41. Gender

Male 1
Female 2

42. Should I need to clarify something I have asked you about, may I contact you again?

Yes 1
No 2
Unsure 3

43. Contact Tel No: _____

44. Interview Date and Time: _____

45. Previous experience of Decision Conferencing: _____

(Thank participant)

APPENDIX C TRANSCRIPTION GUIDE

Hello!

Following are some notes regarding the transcription requirements for the research. As there are a couple of us transcribing these notes are intended to keep the process as consistent as possible.

Remember that the tapes are like gold and are irreplaceable. Where possible avoid carrying them around and keep them in a safe place. Please keep backup copies of your work as a safety precaution.

Apparently exposing tapes to speakers risks damaging/erasing them. Avoid this!

Please find following some notes re transcribing for this project. If in doubt at any stage please don't hesitate to call me on 9272 6814 or email woodm@cbs.curtin.edu.au

Please remember the confidentiality aspects of this work. The tapes are not to be discussed with anyone apart from myself.

Thanks for your help!

Regards

Margot

SYMBOLS FOR DISCOURSE TRANSCRIPTION

(Refer to attached sample for examples of application**)

Speech Overlap	[ ]
Pause • Long • Medium • Short	 … (N) … ..
Vocal Noises • Laughter • Inhale • Exhale • Glottal stop	 @ (H) (Hx) %
Quality • Quality (e.g. nervously, loudly, whispering) • Emphasis • Laughing while speaking • Quotation (e.g. when they are quoting someone else)	 (( )) <E put word in here E> <@ put words here @> <Q put words here Q>
Transcriber's Perspective • Uncertain hearing • Indecipherable syllable	 <X put word(s) here) X> X

** An example was attached when distributed to the transcriptionist

Notes for Transcriptionist

Transcribing Interviews (Note: an example was attached with these instructions when they were provided to the transcriptionist)

1 Type every word as it was said. Tapes should be transcribed verbatim as much as possible. The only exception to this is where I make confirmatory 'noises' as people give their response (e.g. hmm, uh-huh, etc). Please don't correct the grammar. Pronunciation errors should be typed as spoken, using (sic) as an indicator. Include everything in the transcript, including: pauses, expressions of emotion (e.g. laughter) hesitations and fillers: hm, er, like, you know etc. loudly/emphatically /softly/stuttering) interruptions:(interrupting) or (int.) and anything else you run across. Describe it as well as you can; flag it and talk to me later when in doubt or if you run across something "new" so we can keep track and make the markers for them consistent. Some tapes will be transcribed by more than one person for an assessment of reliability, so these sorts of things need to be as uniform as possible. Please include a glossary if you use any other abbreviations.

2 Please do not skip words - repetition (e.g., "no, no, no") can be important.

3 Please make sure that two "carriage returns" (a double space) occurs between speakers. Data is coded by line; we cannot separate speakers if their words both occur on the same line. Use a question mark if you are not sure who exactly is speaking.

4 Save document in Word for Windows, or as a text file using the person's initials and the tape number for the file name (e.g. JS001). Please use a new file (NOT DISC) for every new interview. You may want to make a back up copy as well as the one you give me.

Format:

Font: Courier 10. Use plain text. Avoid using italics or bold as the files will eventually be saved as text only. Avoid tabs and indents.

Document Margins: Top and Bottom: 1.25cm; Left: 2 cm; Right: 3.5cm. Paper size: A4

Heading Information:

Type an asterisk (*) at the beginning of each line for the background information. Enter two carriage returns at the end of this section. The background information is written on the cassette holder and is also usually recorded at the beginning of the tape. Use this example as a guide:

*PhD

*Organisation Name, Place

*Interviewee Name [tape number]

*Position (e.g. Executive Officer)

*Tuesday April 15, 1997; 1.00 pm: Interviewer: MW

*Materials: Questionnaire, tape recorder, notes on process, hardcopy of *output from the various stages & key decisions to review with participants

Indicating Sections and Speakers

Use initials to indicate who is speaking e.g. MW for Margot Wood and JL for James Lui. Anytime I ask a new question (even phrased as a "tell me about ") insert an asterisk just before my initial (you can go back and do this at the end if easier).

Example:

*MW: What would you say were the main things that helped to develop a shared understanding regarding the issue?

JW: It was mainly the fact that we got to talk to each other over the two days… We hardly ever get together like that.

Things for Researcher to do to prepare tapes for transcription:

1 Make a copy of each tape before handing them over

2 Provide transcriptionist with one page of what I want the transcript to look like; line length, spacing, abbreviation for each speaker. (Especially important if you are going to use a qualitative coding software package).

3 Ask them to indicate bits they cannot understand, so I can fill it in later (see coding sheet).

4 Ask to see printout after they've completed a tape. Listen to it while I read transcript. Is it accurate enough for your purposes? This is especially important if the transcriber is new. That will allow me to check the quality of the work and give any other necessary instructions. The first time I edit a transcript it gets done on a hard copy. In this way a clear measure of how many errors the transcriber made is evident.

5 Remind them that these tapes are like gold and absolutely not replaceable. Do they have a safe place to work on them? How can they avoid carrying them around with them?

6 Punch out the tabs that prevent recording on the tape before you hand them over to the transcriptionist!! (I do it right after I finish an interview).

7 Interruptions to be handles as follows e.g. phone rings (Phone rings; R talks about plans for tomorrow for 5 minutes).

8 Ask transcriptionist to make a back-up disc at the end of every transcription session. Put all work on a clearly labeled floppy disc using specific names for the files instead of allowing the transcriptionist to make them up. That way we both will know what interview she is describing.

9 Ask that they use a new file (NOT DISC) for every new interview.

10 Provide the transcriptionist with a transcription guide and a sample of how this is to be applied.

11 Ask them to remember the confidentiality aspects of this work.

APPENDIX D SAMPLE INTERVIEW TRANSCRIPT AND COGNITIVE MAP

Sample Transcript from Case 1 MBC.

Names have been removed to protect confidentiality

*PhD

*Case 1 MBC, England

*Councilor (Name) [S034]

*Friday, February 13th, 1998; 1pm

*Interviewer MW

*Transcriber: MW

*Q1

MW: One of the first things I did want to ask you about was something that we call a shared understanding. When you've got a group of people round a table - we might be discussing budget issues or whatever it is that we are discussing - when we get to a point that we all feel that we understand the issues that we are addressing and also how other people feel about them - I might not to agree with you, so while we might not agree with each other we have a very good understanding of where we both stand and the issues which we are addressing, now do you feel that you got to a shared understanding in that workshop in November?

S034: ..In a way yes but on certain issues I think there were clearly NOT a shared understanding or shared acceptance might be a better word [um] because it was ... partly a political um divide and there was an Officer/Member divide, so there were 2 walls in it that that you had to climb. They may have been Chinese walls with lots of holes in them hm but there were two. So um I think we got, we did get closely there but I think there were considerable differences which were still, from my personal perspective would still be there.

MW: Okay. So and the differences were primarily from that either officers/member divide partly or else between parties to some extent

S034: I think the principle one, if I can give the example that stands out in my memory was that ... one of the ways of reducing costs in caring for the very elderly um I think it was terminology that got to me rather emotively was that concept of warehousing.

MW: Oh, yea, okay

S034: and it was acceptable to one ... person - but was totally unacceptable to me and it it led to a .. that every time it was used I kind of went .. back into myself I can't describe it better than that

MW: Um

S034: I don't like the term and I don't like the concept I don't think even if it ..cost, it was the saving us millions I could ever agree to the concept. So there is not a common understanding there is it?

MW: Hm, hm

S034: There was a clear difference of view

MW: Hm, hm

S034: That was one clear example that I remember particularly

*MW: Yeah, yeah yeah That was in relation to age care was it?

S034: But, Sorry I beg your pardon

*MW: Um that was in ...what was that in relation to?

S034: That was in relation to caring for the very elderly.

MW: Um

S034: The concept of moving from small accommodation, small units maybe with 20 people in it

MW: Yep

S034: to I use the term the concept of warehousing where they go into big institutions. It conjures up a horrible picture for the start, but ...it is not literally warehousing but that concept of large insti, institutionalising was the thing that I saw and it was not something I'd like this country or this borough or me to even contemplate going back to just because of financial pressures. But it was clearly there .. in one of the principle savings, it was sort of way up there in terms of value that came up in decision conferencing process.

*Q2

MW: Okay. Where you did get to it, because you were saying that in part you did get to a shared understanding - What sort of things help to get to that point?

S034: I think listening. Listening um to both political colleagues to listening to officers, professional officers, who are at the sharp end on a day to day basis. So it was that listening and understanding, explaining your own point of view and being listened to ... um and being kept focused of course by – his name's gone!

MW: (Name)?

S034: (Name), sorry. Who kept bringing us back to the reason we were there.

MW: Yep, so that the facilitator was quite important in that as well.

*Q4

MW

Okay, um with that sort of listening and asking questions and things like that were there any points in the process you know how you went through about the fairly structured process where you were racing through elements against criteria and weighting the different areas and so forth? Were there anything in that process that you seemed helped to elicit further discussion or so make a difference?

S034: Wow, I eh ...I think it helped to show everybody there .. how difficult it was .. it is remarkable that difficulties can be an aid because we have to do the across a wider range of subjects as Councilors. This was all within social services but then you have to extend that to community services to - education whatever, you have to widen it out so .. I felt that that was that. But those difficulties were that you, partly the sort of thing that I've said, that there were certain unacceptable parts of it and the other one was that you do end up with the point that you can't say .. well I value .. that more than that.

MW: Um

S034: You have to say I value both equally and despite everyone's best endeavours to argue through that one was lower and that one was above, I don't think you can shift some people from that position, but I can't remember any specific examples now but I can, I know I sat there and thought 'I can't say that..' .. give an example maybe of caring for single parents is.. is more or less important than transporting elderly people to day centres.

MW: Um, um

S034: I think they both rate a score, roughly the same and I'm never going to change on that. There are difficulties of that sort that come in, because the system does say you should rank everything if you can do it.

MW: Um, so some of that you felt, had some difficulties with

S034: I had personal difficulties with.

MW: Yeah

S034: but but it is illustrative that you've uh the problem when you try to expand your mind and think across the council, beyond social services, and you've got to compare .. one of those two things with .. with maybe ..increasing or not increasing nursery education in the borough or repairing the park a bit more. The balance has become very very difficult

MW: Very difficult, very complex. I can see that.

S034: Mmmm

*Q3

MW: Thinking .. again about that workshop process and the modeling that you went through, and so when I referred to modeling I'm referring to the work you also did on whiteboards like the rating against criteria, the weights, all the all the stuff that goes with building up the model that you

S034: [Um]

MW: [get] to in the end. Do you think doing it in that way, in that structured way altered the substance of your discussion at all in that workshop?

S034: ...I don't think so, I don't think so um .. not personally, it might've done for others it might've done for the chair of social services who would never have had such an in-depth discussion with a) her political opponents or b) her leader and chair of finance who were the other people from my party. May never have gone into that depth. So, it's unfortunate that social services is one of the things that there are perceptions of, that it is a profligate service, that allegedly it could be (ie is) poorly managed. For financial reasons people respond to needs much more than they respond to financial constraints. Which tend to be views that, if you want ... detached political people, worried about the whole borough and the finances of it may take.

MW: Um

S034: versus, the social services chair .. who again is going to be fairly focused on .. in this case .. her job. Um .. I think that element of it, that opened up a lot more

MW: And you've got that for some people it may have added some depth to the issue or discussion ?

S034: [Yeah,] so it means if I dare speak about other people some of whom you've interviewed, ..

MW: Yep

S034: I think that it would have opened up for them .. or broken down some of their misconceptions I think is the way that I would put it

MW: Was that, what was that through then? Was it through the question and answer that took place as you did the rating? Or what was it that you think would have done that?

S034: Well, I could as I said I come from this from a different direction. I've been up against my political opponents – (Names) and I have paralleled each other through this authority in terms of our responsibilities and we ... for a few years we were all involved in finance for our parties . Um, we just happened to be the bigger party and I've emerged as the leader of my party now - so is (Name) now, but a complete different in size of groups. And (Name), if I can say has always had this very strong anti social services view. It carries through into his politics and into his campaigning .. um it's never been one that I've shared with him.

MW: Hm

S034: Um .. I'm not sure, (Name) is probably somewhere in between, I don't know if you're going to interview (Name) but he is the Labour Finance spokesperson on this council. So, .. I could see (Name)'s perceptions changing as well as some of my own obviously ... and to a certain extent I felt he had some of the, some of his, what I regard as his misconceptions, broken down. He may, it'd be interesting to see if, when you look back, whether he agrees with that or not but that was the way I felt about it.

MW: Hm, and that was through this discussion

S034: and indeed I have to say my own party chair of finance was there and some of his misconceptions were broken down by this whole process.

MW: Hm, hm

S034: Now, it would it would be wonderful if more councils could do it, but on every subject of the council of course we might .. spend 6 months doing it unfortunately.

MW: Very time intensive, then..

S034: Because of this recycling, you have to go back and re-evaluate all of the .. the whole process is re-evaluation constantly.

MW: Yep

S034: You say that at the beginning and then you you're challenged 'well, what about that over there, we've got to bring that in' or 'that does slip back', 'that moves up', 'what does that do to balance of distribution of services'. It goes round and round.

MW: Yep so that the initial ratings you may have made on it you might need to go back and do again

S034: Particularly if you are comparing it with another service – a completely different service which is .. really mentally what one has to do as a Councilor,

compare it with something that is way over there like mending holes in the road compared with looking after over 75s. How do you balance those things?

MW: Hm no no I'm not sure

*Q4

MW So or do you feel then that going through that process, the modeling process impacted on your understanding of other people's feelings about the issues?

S034: Oh yes. I think there were again two aspects, certainly feelings of the professional officers that were there with us. They were able, I think more able to fully explain their feelings about the necessity for the service, its importance to people's lives, how interconnected with other services. I think .. this comes back to one of the problems as Councilors, certainly with an authority this size. The engagement with officers is very often committee work, where they're just getting droll committee reports. You ask one or two questions, maybe three questions if the Chair lets you. You don't really engage in any term long term direct sense. Now that's true for most members. Senior members do get to engage with senior officers but even then the it tends to come about against the problem. While everything is going along smoothly you're not really engaging that often, because there's always another problem that's taking your time up somewhere else.

MW: [Yep]

S034: [So] that time to be away to be engage with people who... I'm sure in many instances are just faces, I mean, as an instance I've never served on the social services committee in the eleven years on the council, it's just one I've missed. Umm, so I've never had that engagement with officers .. on a day to day basis like the Chair will do, the spokespersons for the parties, individual members of the committee. I tend to come into their lives and theirs into my life when there's either a problem or we're getting, we've got to sort something out for budgetary reasons etc .. and that's just a factor of time. Councilors are part timers and they're full timers and it's a difficult problem.

MW: [hm, hm] so you found that that was one of the benefits of the process

S034: Tat was one of the benefits you actually engage with people over a long time, began to understand them, where they were coming from you and they began to understand us a bit more and ... sometimes you could see them stiffen with 'he's mad!' or 'He can't possibly think that' and you could ...you could sense it from the body language ... and that's something else you get. You get a feeling from people's body language. They're not sitting at a table expecting to be attacked like they are <@at a committee meeting@> @@ and they relax a bit more and that's when body language exposes what they're really thinking so, all of that stuff is .. [it was] critical to it.

MW: [Hm] and so all of that helped you to get a better feel for how they felt or what they thought about the different areas.

S034: Yes, yes exactly .. yes

MW: Yep, Okay, alright.

*Q2

MW: So, was there anything in particular then .. apart from the ..discussion or anything that helped the discussion that was particular to this process?

S034: Like I've said I've mentioned the facilitator.

MW: So the facilitator obviously was one

S034: I think the facilitator um for any such, I use the term seminar in a broad sense, if you don't have a good facilitator um .. The other thing that was good about it, is that regardless of the political differences ..we agreed to the rules. That .. whilst I said earlier in the beginning I, I, my body language was body stiffening up when we were talking about warehousing. It didn't, you don't deny the right for it to be discussed. Now, .. that is not a normal political environment. They're usually challenging .. I mean <EreallyE> challenging the very premise on which they're speaking, but it's a bit like a brainstorming session is this session. You can say what you like, it is not.. the objective is not to score political points. The objectives, not the objectives, but the rules were what we said in there wasn't to go outside and be used against us. Umm and ..so I think that helps the process enormously that you even with political opponents or .. their colleagues in the sense was their Councilors but in other circumstances they become opponents that you can ..you can say and you can actually say as an individual you can say stupid things and then have them corrected.. have them ..I don't mean aggressively corrected but get the factual basis corrected. You can withdraw them when you've listened to somebody else and you're not losing face and that's another problem for politicians – all of that stuff

MW: Hm and that trust was there that, that would be respected?

S034: The fortunate thing is that the majority of people in the room, the majority of Councilors in the room have worked together on such basis before and ...I sus((knock on the door)) Excuse us a sec

MW: No, no problem ((spoken softly))

S034: ((come in)) Tape turned off.

MW: So, that helped. Establishing those sort of ground rules of what was acceptable and…

S034: Ground rules, yes. Yes. But I think the strength of that is in (facilitator). You have to trust the facilitator. If you..and.. from my perspective again it's best that it's an outsider. And .. I think this was the second.. we've used (name) ....for, for a similar approach for the whole council some time ago .. that's why I think he got our confidence there.

MW: Hmm

S034: and ....so he shows professional capability even, even the equipment's reassuring, you know the whizz boards where you could just flip them over and .. it sounds odd that, but it it's just the fact that the equipment's right, he's getting on with it, he's prepared to stop and say <QComing back. You are going off in the wrong direction. Do you want to go in that direction?Q>

MW: MM ((softly))

S034: 'Don't you want to go in that direction?'.. So we talk to one another saying 'No, we are going in the wrong direction, let's get back to this one' 'No we ought to explore this and keep going a bit further'. So I think that the whole process depends absolutely on having confidence in two things, one's the one is the facilitator and the second one is, that the other people particularly in this political environment are

going to keep their word about .. call it confidentiality but it is not a case of taking it down and using it as evidence against you at a later stage.

*Q6

MW: Yep, yep um ...Thinking about um the actual computer modeling, were there any parts of that you found confusing or difficult to follow at any time?

S034: The computer modeling??

MW: Yeah .. Okay, when I talk about computer modeling I guess what I'm talking about then is .. all steps that you go through to build the model that you get to look at in the end, okay?

S034: Yes.

MW: So you go through and you have your criteria alright? So you start you might have your criteria that you are going to measure things against and you rate things against the criteria. [So]

S034: [That's] right, he is able, he moves things around and then almost at the touch of a button.. flashes up the changes

MW: Yeah. The reason the computer term can be confusing (ie the question can be confusing) is because you don't see a computer or anything on the computer until the end. But, during, on the white board and things what you are often do is rating things according to that criteria rating your different options according to the criteria.

S034: Yes we did actually use the computer in this session, you just reminded me right at the end.

MW: Mmm ..

S034: but when we he was able to put up, I think they were able to project up what .. the outcome of the, what most of the session was and then he was, (Name) was asking people was that quite right, is that the model you want to see and people were saying <Q what if you change that one for that oneQ>?

MW: Yeah

S034: and the ...computer guy was able to ...

MW: Yeah

S034: program it in..or load it in.. press the right buttons I assume cos I'm pretty <@ignorant on computer stuff@> and up would come a new model [I mean]

MW: [Cos what they] would have done is on the way through is as you were discussing all those different things early on in the session saying you know giving your numbers and your ratings

S034: that's right, [he was feeding them in all the time]

MW: [he was feeding] them in so that it was all part so whenever I talk about that modeling it was all of that stuff as well

S034: [Yes]

MW: as well, okay. So guess what I was asking you is did you find any of that whether asking you did you do any of the ratings or any of those sort of things was any of that computing or difficult eh .. for you to follow?

S034: Thinking back on it I don't, I don't believe it, it um it was umm difficult to follow umm ... obviously the lowest bit that was impossible to follow was how that got projected up - the computer end of it which was..

MW: the technical

S034: the technical stuff

MW: [yep]

S034: [but um] no I don't think I didn't find it that difficult at that time. umm I have to go back to look at the papers to remind myself of the content of of what we did at the end.

MW: [No no that's okay] but the concept seems ... okay to you?

S034: [yes .. yes]

MW: ['cos I understand what] it was that they were asking you to do as you went through it. yep then that's fine.

S034: [as you went through .. yes]

*Q7

MW: (H) What about any of the others in the group, did you notice .. anyone else as having .. you know, could everyone follow what was happening during that modeling, during the ratings and weighting and so on?

S034: [I thought so, yes] I thought so um ... just trying to think, I can't .. I don't think anyone challenged it .. um I mean they may have asked a few questions at the time but I can't remember them.

MW: Yep, yep you know that's fine. Obviously if there is any major .. problems you probably would have noticed it.

S034: Hm

*Q8

MW: What about the level of involvement of the group in that whole modeling process in that whole process during the workshop - were most people fairly involved?

S034: ... Yea (a bit hesitant), I mean certainly all politicians were umm .. I felt from time to time, that we were leaving out the professional officers. Uumm .. I have to say that this is, that you have to regard this as a very difficult process for people even though you have got rules. The there is an office of members divide .. which must exist. It's almost like a boss-subordinate type of type of approach and so some of the officers were in double jeopardy if I put it that way. They had the Director of their service there, they had literally the council's senior politicians in terms of there being a hierarchy of Councilors, if you want the leader of Councilors goes down from me, but the top wedge was there and.. that must be difficult for all staff because .. as I said the body language was, was very evident and something they couldn't control and it is a very very unusual .. environment for them. It is actually less, it's less.. it's less unusual for Councilors, for politicians because we're always engaging our groups or engaging with other politicians or (H).. but but officers ... aren't always, they're not always having to def, they're not constantly having to defend their thoughts and their words umm .. and I think that they may, they may have been a

little bit outsidered - though they were there .. the other problem with us and I speak too, I talk too much is getting a word in .. with the likes of us being there.

MW: So, how did you feel about that then, the fact that they seemed a bit more reticent? Was that something that you were concerned about?

S034: [I understood it] I understood it, I wouldn't say concerned, I understood it .. um and they did, they did come in as the day got on they did come in more [hmm] so it did ((in)) in the end I think it worked itself out but I felt conscious for them [hmm] ((that)) that they might be under that sort of pressure.....

MW: And you think that would've had an um impact on the .. outcomes at all, from the workshop?

S034: Umm .. I think it would have been at the margins actually, umm, I think probably at the margins actually, because the other thing we were all aware, we became aware as we went towards the final modeling of what the staff had done and that's when they came into their own as we progressed .. there were some differences between our model .. and their model - the staff's model, which was .. quite startling .. in places from memory. It would be difficult to describe the examples now but I can remember thinking wow you know, we are a long we are a long way apart here, but they did come in to more at the end when the staff model was talked about, so I don't think it .. it devalued the process but I think it ... ((I))I was conscious of it really, ...[hmm]

*Q9

MW: Hmm yeah [yeah] umm that's fine. So overall would you say then that going through that ... that workshop process you know using the computer modeling and so on, did that help the group achieve a shared understanding? .. Was that process something that helped the group?

S034: I think the answer to that is a straight forward Yes I think it does I think .. it it did help[((yeah))].. help them understand.[yeah] Umm I'm unable ... ... I certainly don't believe that the same responses will come from politicians as would have come 12 months ago, when we hit the budget in a fortnight's time.

MW: ((What do you mean?))

S034: .. Umm, .. well I don't think the negative views of social services will be quite so pronounced.

MW: ((No)) because of going through the process.

S034: Because of going through the process. Yes.

*Q10

MW: No,((<soft mumbling>)) ... I want to get you to think about the outcome from that then. When you go through all of that and you get to.. and like you said you got to, they displayed the model for you which shows the budget at different levels, how you might allocate your resources and so on. (H) And then you did some 'what if's' you know, all that 'hang on, let's go back and see what if we change some of the weights on some of these' .. and so as far as I understand you got to .. a point where you've actually had a .. a package or a breakdown of ..where your spending would go, yep?.

S034: Yep, okay.

MW: Is that right?

S034: Yes, [yes.]

*Q11

MW: [Okay], How did you feel about that outcome, what you finally got to?

S034: Uncomfortable. ... because the .. the size of the reductions that we, I think we were facing.. a slightly different situation there..

MW: Yep

S034: .. we we ... a little bit of background. As an overall council I think we were looking at 6 or 7 million pounds worth of cuts on our projected spreading for next year, having made 13 million .. for the current year .. and .. knowing that .. education couldn't have any cuts at all because of government ... provision etc. ... and .. this was one of the things I mean by um increasing the level of understanding . It showed us what 3-4 million pounds reduction in the social services budget would actually mean to the service, and ..... the .. There were two questions, two points there: one it look bloomin' horrible in terms of what I would want to see, but secondly, some of it was not quite .. would have been very difficult to achieve in a single year. One of the things we were looking at of course was a two or three year ideas on social services and ... because in that time we would project, there is a role in projection of 16 million pounds worth of cuts across the budget over .. over 3 years um .. That hasn't actually come about in terms of the level of cuts that we've got to make as opposed to looking to at 6 or 7 million we are looking at 1 million when we might consider ourselves lucky.

So, um .. we've fallen back from looking into that abyss so to speak to a different position in reality. But at the time it really showed that there was a tremendous amount of work to do and of course some of the significant savings that we could or might be able to achieve were by the things that personally I couldn't .. politically countenance, like warehousing right back to the beginning of our conversation. The thought that in order to save that extra half million of whatever the figure was we would have to re go back to this the this horrible institutions in which elderly people lived. Um, ... is something that I thought, no, that is something that I would not build into a budget I'd have to find the cuts from somewhere else I <@don't ask me where but from somewhere else@> [MW: Hm] so I think that really hammered to me what it would mean to cut 3 or 4 million from social services this year.

*MW: So you .. you had very strong personal reservations about that outcome then, would you say.

S034:Umm ..... yes, because my .. my reservations about the outcomes because I've been politically forced to do it [MW: Hm] um, the ..... the whole process ((is the is the)) consequence of us being told this is what you've got to do by Central Government and therefore there is, since I'm not a I'm not a member of the party of the national government for starters,[MW: Hm] I I feel pushed in a direction I don't really want to go in [MW: Hm, hm] um .. the .. so .. I kept I've, I've been there, done that you know I took 5 million, I – we - took 5 million out of social services last year [MW: Hm] and this current year. To do it again, and again .. and again, which was what we were actually looking at in those models, and again um .....it does lead to a question "What the hell am I heading for?" [MW: Hm] you know that that that sort

of feeling that Councilors get and I feel, like, I know (Name) who is the Chair of.. Are you going to talk to (Name)?

MW: (Name) is the other one I'm having trouble, I want to - I'm trying .. I've talked to her husband a couple of times so yeah.

S034: @@ he talks to a lot of us! Sorry, that's an aside. And (Name) feels this much more powerfully than I do. Umm, that 'what are we here for if that's the sort of level of service we've got to provide, they're the sort of cuts that we're going to have to be making..umm.. well, we're here to protect the most vulnerable in our society, and yet to save these sorts of money, it's their services we've got to take away because we're spending the most on them. It's just plain bloody awful frankly @@.. to contemplate.

MW: And it's partly as you were saying linked to external circumstances so you're getting that pressure externally to do this, like it's not something that you can choose to do or choose not to do.

S034: That's right, yes, yes.

*Q12

MW: So given that then, with that outcome, this probably seems like an obvious question.. would you say that you feel personally committed to the course of action indicated by that outcome?

S034: No, I would want to try and avoid a lot of them, so…that process showed me what we could do if we were really forced to do it..I would be looking at alternatives because I would be looking across the council and not just at social services to try and avoid some of those things.. And that's the eternal dilemma for people in my position.

MW: SO you'd be looking elsewhere, like you said, maybe outside Social Services

S034: Maybe, yeah,

*Q15

MW: To what extent would you say you fell responsible for that outcome that was decided upon by the group, that the group got to?

S034: I would say that I felt it had an inevitability about it. The reason I say that is if you – if I can just draw it a little wider for a moment.. which is that, if you as a Council faced with reducing the expenditure across the council by a figure, you can't help but sit there and realise that 75% of what the council spends is on education and social services. And if you've got to cut millions, you tend to look at the three quarters, rather than the quarter. But the quarter's got important things in, things like parks, library, swimming pools, the roads, environmental protection – a whole raft of things, trading standards, business development – all sorts of things over there. But then you've got these two big blocks. Education is 50-60% of the budget. If you suddenly get told by the government of the day, effectively you can't touch education at all, you don't want to but I mean..you are suddenly looking, you are looking at a 25% of the budget which is social services, so there is that inevitability which I mentioned it comes out of that process.

Although this was a much more detailed process, it was much more I'll use the word 'scientifically' approached, properly approached..at the end you're staring at answers that you were trying to avoid @@ politically or even personally. Staring at you off a

board or wherever they're on – the projection – they're staring at you. And you're still saying 'I don't want to do that. That's not what I'm here for, I don't want to do that'. So I think that's.. I think I contributed to the process, because the process was of itself, but it was isolated from the rest of the council..umm, it could be regarded as an academic exercise. I was there to participate in the exercise so I did, but I contributed to that outcome, yes.

I mean, I don't think anyone could actually sign up 100% to the outcome. We would have all maybe moved bits of the model about.. but there was a consensus.. that was the other thing, it was a consensus model. It wasn't MY model or (Name)'s model, or (name)'s.. it was a consensus model. And, I would suspect that if we went to our group, political group and did it, and the other group did it, the two models wouldn't quite match each other, there would be differences there.

*Q16

MW: How do you think the others in the group felt about the outcome?

S034: I would think that, @, certainly the Labor group and us would feel very much the same.. I don't know about (Name). I think (Name) may not have felt the same as the rest of us. The staff would've felt, I think horrified by looking at the model, but realising.. because their model didn't match ours – I think I've said that – and therefore I think they got probably quite surprised by the outcome that the politicians sort of outcome was not the same as the professionals outcome.

MW: Do you think surprised in terms of ..what? They liked it less or liked it more, or..?

S034: I get the feeling that they liked it less. I get the feeling that they were quite surprised and thought, 'Don't they understand what they're doing? Don't they realise what the consequences of that model really are?' And, and the awful thing is we do…

MW: And that's just what you were talking about earlier wasn't it..

S034: It's.. there was a phrase and it's gone right out of my head.. It's 'Defending the indefensible'. You got choices.. and you don't want to be in the position to make choice, but you've got to make a choice. It's the gun or the sword. And – well, I don't want to die @@ .. and that's the way I felt about it.

*Q17

MW: Just thinking again about that modeling process – which is essentially what you did that whole day, going through and ratings things and so on - DO you think going through it in that way affected your level of confidence in the outcome?

S034: Yes – I think it would've done. I felt..as I said I felt uncomfortable with the outcome, but I felt there was an inevitability about the outcome as we progressed throughout the day and therefore one could have confidence in the model, I use the phrase, for what it was worth. That model was a proper projection of what had come out of the day. It was a consensus projection, there would have been tweaks I would've put to it, but I would've had, I had a degree of confidence.

MW: So you felt it did actually reflect the discussion that was taking place?

S034: I don't think it had been steered and I don't think it had been manipulated. And I think that was demonstrated by the fact that there was a difference between ours and the staffs.

*Q18

MW: Was there anything in that modeling process that impacted your commitment to the outcome or the fact that you don't feel particularly committed to it? Anything in the process rather than just the content?

S034: Ummm.. I wouldn't say that I was committed to the model that came out at the end. I think I made that clear. Umm.. I would say that it would be, that it's useful.. The only commitment that I would've had to that model, would've been that if we had actually landed up facing 8 to 10 million pounds worth of cuts as a Council, I would've had to have really – as an old fashioned expression – sucked my teeth in, sucked my cheeks in, sort of (intake of breath) and do it. But that would, that is not commitment (emphasis)..

MW: It's more compliance..

S034: Yes, that's fine. Yes, that answers it perfectly, it's more compliance. It becomes.. what happens is when you're looking at such a huge problem as we did 12 months ago, you suddenly start looking at figures and you forget the consequences. And you have to have someone, perhaps nothing to do with today's interview, but you have to have someone that you bring in, as I did – we did – to say, 'Think about that politically (Name). Quite literally, is that going to win us votes or is it going to lose us votes, what about this? Now that's because when you're looking at huge cuts you've gotta achieve a bottom line figure and you get to a stage of stupication – can't say it, stupefaction, at the end of the, at the end of the time, when you got two weeks to go to the budget and you gotta achieve that figure and you need someone to keep reigning you back and saying 'Hold on. What are you doing?' And I'd have thought that that model, in an 8-10 million cuts, would've been the basic, because I think from memory it was 3 to 4. And that's only half of what we would've needed as a Council. So it would've been easy to lift the model and say 'Right, that's the Social Services' Reductions'. But you gotta do it next year, not over two or three years – and that was the other thing, projecting over a period and if we'd have been really serious about those cuts we may have had to crunch that into 12 months, which would've been disastrous.

MW: Mmm. Disastrous in terms of actually 1) having to do it but also..

S034: I think damage the service, damage the people, the er.. I think the staff would've felt devastated as well.

MW: Just imagine trying to do something like that within 12 months..

S034: Mmmm

*Q19

MW: Alright. Earlier, you were saying that there was a partial shared understanding there, with some issues there and so on. Do you think that that had any impact on your level of commitment? Or the fact that you weren't particularly committed to the outcome?

S034: Not really, no. Because, again, I'm in an environment where shared understanding is not a very common outcome and .. downright deliberate misunderstanding is the way of the world.. because it's, politics is often anything that you say will be taken down, twisted and used in evidence against you @@. And so,

in that sense I wouldn't have, I would've thought the answer was, didn't reduce my confidence in it, no.

*Q20

MW: DO you think there was anything in that, in trying to get to a shared understanding that affected the overall level of commitment to the outcome?

S034: No I don't think that, I think I've explained that I don't think I can help much more.

MW: Would you say it was a relatively cohesive group, the one that was in that workshop?

S034: Yes..umm.. three or four of the principals from the Councilors side, three or four of the principals had worked together in this sort of environment before. The very nature of this Council means that those 3 or 4 people had worked together over many years. Just when I say that this Council has no party, one party which is in overall control. It is called a hung Council. We are the largest party, but that means you have to do a lot more negotiating with other politicians, other parties, to get things to happen. So there was a level of that went on there. I think perhaps that you may not get, I wouldn't prejudge it, but you may not get the same answers from someone like (Name), or from (Name). Because they've not been exposed to that quite as much as I have, and (Name)and (Name)and even (Name). We've done a lot of it.

MW: So amongst the Councilors then, it was relatively cohesive, but not necessarily for the group as a whole, including the Officers?

S034: No I think you see, funny enough, I think (Name)would've felt more cohesive with the Officers. The Chair of Social Services may have felt, in fact I'd be fascinated to know what her answers was because, I mean, slight prediction which can be 100% wrong, I would've thought been even less happy with the model than I was. She may have been happier with the Officers model. Not because she's an Officer, but because she's closer to all off the intricacies of the problems of Social Services than the rest of us there.

MW: Yep, OK. I haven't talked to her yet..

S034: No, no. It would be interesting that one.

*Q22

MW: Alright, some of this you've just raised as well, but I was also interested in what you think about the feasibility of implementing that outcome. How feasible would it have been to put in place?

S034: Well, I think it would have been.. extremely difficult to actually implement it. Certainly in the short term, if we'd been forced to. I.. I don't even believe, but this is the politician in me, that there would be an acceptable, that it would be acceptable to the public. I would not be able to sell it with any conviction at all, other than I have got to cut X million from the budget.

MW: Something that you had no choice in..

S034: And this was a way to do it.

*Q23

MW: What about the others in the group. Do you think the others felt it could be implemented?

S034: Again I think the Conservatives – (Name)– thinks it could. I'm not sure about that. Actually I think the Labor party think it could as well. And that would be interesting to see what their response was on that point. I don't expect to know, but @@

MW: Alright, well given that then.. what about the Officers?

S034: I think they, as I said, my feeling was they were horror-struck and the thought that they'd have to implement it! Because the difference is that that the Officers, I say 'Do it!' if you want and they're the poor souls that have to actually do it. They're the people who have to say to someone, "Umm – you're not going to get any services in your home." "Your mother's going to go this 150 bed unit… umm, and she'll be exercised twice a day". And you do what I do, you shudder! But that's what it, that's what some of these things actually meant when you're dealing with the very elderly and the fact that it is expensive to keep them in their homes and it is very expensive.. all the stuff we did.. it's very expensive to keep them in small units.

You get this terrible feeling that they become units themselves and that they are serviceable by less people and therefore the cost comes down and that – that was one of the conclusions. And if you're forced into this particularly large area of cuts this would be a way of reducing your expenditure dramatically. I may be over-dramatising the consequences, but the Officers would be the people that already have to say 'Your old folks, your parents have reached this limit of domicillary care expenditure, we'll either continue spending at that level and you will have to pay the rest of the service, care whatever – or they'll have to go to a residential establishment."

Now we're already at the point. Now to start saying either lowering that threshold, lowering that level of service or saying earlier that you've gotto go into care – and that sort of care is then at of the type, maybe again I've exaggerated, but a Dickensian type of care – is just where I think some of them would walk away from it, frankly. The professional staff – they just wouldn't want to do that.

*Q24

MW: So overall, then – do you think there was a general willingness to implement it..?
S034: I think there was a general hope that we wouldn't have to.

*Q25

MW Were your expectations of that workshop met?.. Did you have any?

S034: Yes, I don't think..I don't think it could've been any different. I don't think we were steered, we reached our own conclusions. As much as I didn't like them, we reached our own conclusions.

MW: Was there anything else you were expecting from the workshop?

S034: I didn't expect it would give us such stark choices, but it did. Maybe that was naïve.

*Q26

MW: Based on your experience what would you say is the strength of the workshop process you went through?

S034: I think the cross party and the Councilor, staff or officer interactions were valuable. As I said it's very difficult for officers to get to the point where they feel as if they can deal with Councilors – particularly senior Councilors – on an even footing.

MW: Was there anything else that you would see as a strength?

S034: Well one of the.. the strength of it.. well maybe, it's really confirmed in some ways some of the things that I don't want to see happen in our society, in a broader sense, let alone just (place) or..

MW: So you got to see the implications of some of that.. Is that what you're talking about?

S034: Yes. Yes. I probably dwelt too much on the elderly – but that's one particular aspect of it, if you see the model you'll see what I mean. But there are other things about children that concern me and perceptions and caring for children that worry me about it..

*Q27

MW: Were there any weaknesses in that process?

S034: It's like everything else, it probably was too short, that you are being.. it's a fairly heavy process for a day (emphasised), ummm, but there's a cost factor both in terms of real money and in people's time and of course it was an exercise that has only been done for one service which may.. This is not a criticism of the day, but it's a criticism of the situation we're in. Just try to imagine doing that for every service committee individually and then blending them. As I said earlier, I think it could take six months. And that's another problem, never have enough time for such things because, as I think you've said already, you can't get hold of people @@, we're all very busy people.

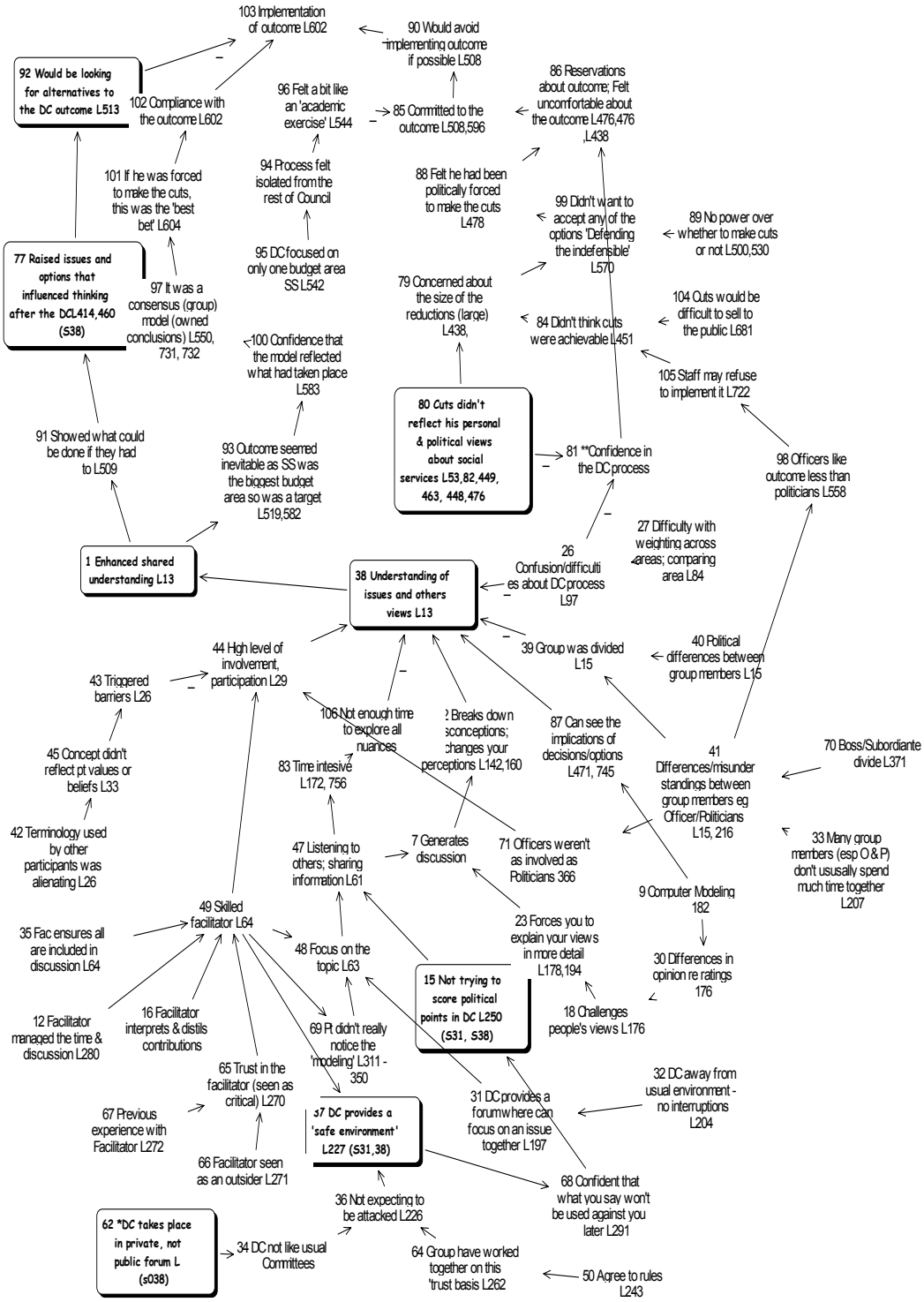
*Q28

MW: Was there anything else about the workshop that you wanted to comment on, that I haven't asked?

S034: No I think I've said a lot of it. I think it was very professionally conducted. I think (Name) showed his skill and expertise. We did trust him because we've used him - as Members – we've used him once before. Umm, No I think that's all.

END OF INTERVIEW

Sample Decision Explorer Map (Individual S034)



APPENDIX E CODING TREES FOR CASE 1 & CASE 2

Project: Case 2 DC **User:** Margot Wood **Date:** 12/27/2003 - 3:36:02 PM

NODE LISTING

Nodes in Set: All Tree Nodes

Created: 5/29/2000 - 9:57:02 AM
Modified: 12/27/2003 - 3:35:49 PM
Number of Nodes: 119

1 (1) /Gain Council Support for Outcomes
2 (2) /Shared Understanding
3 (2 1) /Shared Understanding/Enhanced SU
4 (2 2) /Shared Understanding/Didn't enhance SU
5 (3) /Demographics
6 (3 1) /Demographics/Politician
7 (3 2) /Demographics/Officer
8 (3 3) /Demographics/(PlaceName)
9 (3 4) /Demographics/Gender
10 (3 4 1) /Demographics/Gender/Male
11 (3 4 2) /Demographics/Gender/Female
12 (3 5) /Demographics/PhD 1998
13 (4) /DC Process
14 (4 1) /DC Process/Confidence in Process
15 (4 1 1) /DC Process/Confidence in Process/No confidence in process
16 (4 1 13) /DC Process/Confidence in Process/Had confidence in DC process
17 (4 2) /DC Process/Safe Environment
18 (4 3) /DC Process/Computer Modeling
19 (4 3 1) /DC Process/Computer Modeling/Restricts scope of debate
20 (4 3 2) /DC Process/Computer Modeling/Understood CM process
21 (4 3 3) /DC Process/Computer Modeling/CM Difficulties
22 (4 3 4) /DC Process/Computer Modeling/CM generates discussion
23 (4 3 5) /DC Process/Computer Modeling/Criteria
24 (4 3 6) /DC Process/Computer Modeling/Sensitivity Analysis
25 (4 3 7) /DC Process/Computer Modeling/CM objective
26 (4 4) /DC Process/Preparation important
27 (4 5) /DC Process/A decision gets made
28 (4 6) /DC Process/Use DC again~
29 (4 6 1) /DC Process/Use DC again~/Yes - use DC again
30 (4 6 2) /DC Process/Use DC again~/No - not use DC again
31 (4 7) /DC Process/Political & power issues
32 (4 7 1) /DC Process/Political & power issues/Manipulation of results & inputs
33 (4 7 2) /DC Process/Political & power issues/Using DC to avoid responsibility
34 (4 7 3) /DC Process/Political & power issues/People fight for their corner
35 (4 7 4) /DC Process/Political & power issues/Power inequities
36 (4 7 5) /DC Process/Political & power issues/Doesn't include political judgement
37 (4 7 6) /DC Process/Political & power issues/P&P issues - general
38 (4 8) /DC Process/Small Group Process
39 (4 8 1) /DC Process/Small Group Process/Not all dec makers involved
40 (4 8 2) /DC Process/Small Group Process/Non pts find dec'ns hard to accept
41 (4 8 3) /DC Process/Small Group Process/Small group positive
42 (4 8 4) /DC Process/Small Group Process/Prior relationship amongst pts
43 (4 8 5) /DC Process/Small Group Process/Process builds a team
44 (4 8 7) /DC Process/Small Group Process/May be seen as elitist

45 (4 9) /DC Process/Produces unexpected options
46 (4 10) /DC Process/Discussion
47 (4 10 1) /DC Process/Discussion/Not as open as it could be
48 (4 10 6) /DC Process/Discussion/Open process, generates discussion
49 (4 10 12) /DC Process/Discussion/People share views, listen
50 (4 11) /DC Process/Involvement
51 (4 11 1) /DC Process/Involvement/Equitable & full Involvement
52 (4 11 2) /DC Process/Involvement/Inequitable, not full Involvement
53 (4 11 3) /DC Process/Involvement/Roles need to be clear
54 (4 12) /DC Process/Encourages strategic view
55 (4 14) /DC Process/Pushed for time, intense
56 (4 15) /DC Process/Pts have common purpose
57 (4 16) /DC Process/Objective & rational process
58 (4 16 1) /DC Process/Objective & rational process/Structured Process
59 (4 16 2) /DC Process/Objective & rational process/Not objective
60 (4 16 3) /DC Process/Objective & rational process/Indiv can't dominate
61 (4 16 4) /DC Process/Objective & rational process/Objective Process
62 (4 16 5) /DC Process/Objective & rational process/Ensures focus on key issues
63 (4 16 6) /DC Process/Objective & rational process/Agree on key criteria
64 (4 16 10) /DC Process/Objective & rational process/Defensible process
65 (5) /Facilitator
66 (5 1) /Facilitator/Facilitator -negative
67 (5 8) /Facilitator/Facilitator - positive
68 (6) /Previous DC Experience
69 (6 1) /Previous DC Experience/No previous DC experience
70 (7) /Suggestions for Improvement
71 (8) /Search Results
72 (8 1) /Search Results/relief
73 (8 2) /Search Results/Single Text Lookup 2
74 (8 3) /Search Results/hung council
75 (8 4) /Search Results/search~ strategic
76 (8 5) /Search Results/Single Text Lookup
77 (8 6) /Search Results/Single Text Lookup 4
78 (8 7) /Search Results/Single Text Lookup 3
79 (8 8) /Search Results/search~ resource
80 (8 9) /Search Results/search~ feasible
81 (8 10) /Search Results/Search 'committed'
82 (8 11) /Search Results/search~ personally committed
83 (8 12) /Search Results/search~ party
84 (8 13) /Search Results/Search~ committee
85 (8 14) /Search Results/Single Text Lookup 5
86 (8 15) /Search Results/Single Text Lookup 6
87 (8 16) /Search Results/Single Text Lookup 7
88 (8 17) /Search Results/Single Text Lookup 8
89 (8 18) /Search Results/Single Text Lookup 9
90 (8 19) /Search Results/Single Text Lookup 10
91 (8 20) /Search Results/Single Text Lookup 11
92 (9) /Perception of Outcome
93 (9 1) /Perception of Outcome/Relief, reached a dec'n
94 (9 2) /Perception of Outcome/Not responsible
95 (9 3) /Perception of Outcome/Achieved Consensus
96 (9 4) /Perception of Outcome/Felt Responsible ~fully or partly~
97 (9 5) /Perception of Outcome/Robust
98 (9 6) /Perception of Outcome/Reflected discussion, inevitable
99 (9 7) /Perception of Outcome/Others happy with outcome
100 (9 8) /Perception of Outcome/Comments re Values
101 (9 8 1) /Perception of Outcome/Comments re Values/O doesn't reflect values, views
102 (9 8 4) /Perception of Outcome/Comments re Values/Outcome reflects

values,views

103 (9 9) /Perception of Outcome/Not seen as a final decision
104 (9 10) /Perception of Outcome/Good dec or Best Bet
105 (9 11) /Perception of Outcome/Not good dec or best bet
106 (9 12) /Perception of Outcome/Commitment
107 (9 12 1) /Perception of Outcome/Commitment/Not Committed
108 (9 12 2) /Perception of Outcome/Commitment/Compliant
109 (9 12 5) /Perception of Outcome/Commitment/Committed
110 (9 13) /Perception of Outcome/Unsure of decision quality
111 (9 14) /Perception of Outcome/Implementation
112 (9 14 1) /Perception of Outcome/Implementation/Unlikely to implement
113 (9 14 6) /Perception of Outcome/Implementation/Likely to implement
114 (9 15) /Perception of Outcome/Feasibility
115 (9 15 1) /Perception of Outcome/Feasibility/Feasible
116 (9 15 14) /Perception of Outcome/Feasibility/Not Feasible
117 (9 16) /Perception of Outcome/Others not happy with outcome
118 (10) /Issues
119 (10 1) /Issues/Pool Divisive Issue

Project: Case 1 MBC **User:** Margot Wood **Date:** 12/27/2003 - 3:36:02 PM

NODE LISTING

QSR N6 Full version, revision 6.0.
Licensee: Margot Wood.

PROJECT: PhD3, User Margot Wood, 3:43 pm, Dec 27, 2003.

REPORT ON NODES FROM Tree Nodes '~/'
Depth: ALL
Restriction on coding data: NONE

(1) /Q1 Shared Understanding
(1 1) /Q1 Shared Understanding/SU Yes
(1 2) /Q1 Shared Understanding/SU No
(1 3) /Q1 Shared Understanding/SU Some
(1 4) /Q1 Shared Understanding/Q2 SU Help Factors
(1 4 1) /Q1 Shared Understanding/Q2 SU Help Factors/Facilitation
(1 4 2) /Q1 Shared Understanding/Q2 SU Help Factors/Prework, Preparation
(1 4 3) /Q1 Shared Understanding/Q2 SU Help Factors/People had faith in the process
(1 4 4) /Q1 Shared Understanding/Q2 SU Help Factors/A set target to achieve, common goal
(1 4 5) /Q1 Shared Understanding/Q2 SU Help Factors/No political point scoring
(1 4 6) /Q1 Shared Understanding/Q2 SU Help Factors/Influence of Senior Management
(1 4 7) /Q1 Shared Understanding/Q2 SU Help Factors/Previous contact or relationship
(1 4 8) /Q1 Shared Understanding/Q2 SU Help Factors/Structured process.
(1 4 9) /Q1 Shared Understanding/Q2 SU Help Factors/Establish trust & groundrules
(1 4 10) /Q1 Shared Understanding/Q2 SU Help Factors/Productive discussion
(1 4 11) /Q1 Shared Understanding/Q2 SU Help Factors/Process demonstrates complexities
(1 4 12) /Q1 Shared Understanding/Q2 SU Help Factors/Sheer time spent together in DC
(1 4 13) /Q1 Shared Understanding/Q2 SU Help Factors/If issue is clear cut
(1 4 15) /Q1 Shared Understanding/Q2 SU Help Factors/Make up of group
(1 5) /Q1 Shared Understanding/Q2 SU Hinder Factors
(1 5 1) /Q1 Shared Understanding/Q2 SU Hinder Factors/Disparate group
(1 5 2) /Q1 Shared Understanding/Q2 SU Hinder Factors/Conflicting Values or Beliefs
(1 5 3) /Q1 Shared Understanding/Q2 SU Hinder Factors/Complex issue
(1 5 4) /Q1 Shared Understanding/Q2 SU Hinder Factors/Not enough time
(1 5 5) /Q1 Shared Understanding/Q2 SU Hinder Factors/Political nature of organisation
(1 5 6) /Q1 Shared Understanding/Q2 SU Hinder Factors/CM short circuits su
(1 5 7) /Q1 Shared Understanding/Q2 SU Hinder Factors/Not being involved
(1 5 8) /Q1 Shared Understanding/Q2 SU Hinder Factors/Individuals dominating discussion
(1 5 9) /Q1 Shared Understanding/Q2 SU Hinder Factors/Concern or anxiety re the CM
(2) /Q3 DC cf Other Meetings
(2 1) /Q3 DC cf Other Meetings/Q3a Did CM affect discussion content?
(2 1 1) /Q3 DC cf Other Meetings/Q3a Did CM affect discussion content?/Greater Focus
(2 1 2) /Q3 DC cf Other Meetings/Q3a Did CM affect discussion content?/Had to

Make a Decision
(2 1 3) /Q3 DC cf Other Meetings/Q3a Did CM affect discussion content?/Diffuses the power
(2 1 4) /Q3 DC cf Other Meetings/Q3a Did CM affect discussion content?/Process wasn't entirely realistic
(2 2) /Q3 DC cf Other Meetings/More Open
(2 3) /Q3 DC cf Other Meetings/More Interaction
(2 4) /Q3 DC cf Other Meetings/More systematic
(2 5) /Q3 DC cf Other Meetings/More depth
(2 6) /Q3 DC cf Other Meetings/Got to see whole picture
(2 7) /Q3 DC cf Other Meetings/No better than other meetings
(3) /Computer Modeling
(3 1) /Computer Modeling/Q4&Q5 Impact of Cm on und'g others
(3 2) /Computer Modeling/CM - Things that helped
(3 2 1) /Computer Modeling/CM - Things that helped/Familiarity
(3 2 2) /Computer Modeling/CM - Things that helped/Facilitation
(3 3) /Computer Modeling/Benefits of CM
(3 3 1) /Computer Modeling/Benefits of CM/Focus
(3 3 2) /Computer Modeling/Benefits of CM/Decisions get made
(3 3 5) /Computer Modeling/Benefits of CM/Provides evidence
(3 3 6) /Computer Modeling/Benefits of CM/Enhanced understanding
(3 4) /Computer Modeling/Q6 CM areas I found difficult
(3 4 1) /Computer Modeling/Q6 CM areas I found difficult/Final Model
(3 4 2) /Computer Modeling/Q6 CM areas I found difficult/Comparing between areas
(3 4 3) /Computer Modeling/Q6 CM areas I found difficult/Understanding what the numbers meant
(3 4 4) /Computer Modeling/Q6 CM areas I found difficult/Having to trust in the process
(3 4 5) /Computer Modeling/Q6 CM areas I found difficult/None
(3 5) /Computer Modeling/Q7 CM Others found difficult
(3 5 1) /Computer Modeling/Q7 CM Others found difficult/No real problems
(3 5 2) /Computer Modeling/Q7 CM Others found difficult/Comparing between areas
(3 5 3) /Computer Modeling/Q7 CM Others found difficult/Having to trust in process
(3 5 4) /Computer Modeling/Q7 CM Others found difficult/Final Model
(3 6) /Computer Modeling/Q8 CM Involvement
(3 6 1) /Computer Modeling/Q8 CM Involvement/All involved
(3 6 2) /Computer Modeling/Q8 CM Involvement/Latecomers less involved
(3 6 3) /Computer Modeling/Q8 CM Involvement/Not permitted to be fully involved
(3 6 4) /Computer Modeling/Q8 CM Involvement/Mixed
(3 7) /Computer Modeling/Q9 Did CM help SU?
(3 7 1) /Computer Modeling/Q9 Did CM help SU?/Yes
(3 7 1 1) /Computer Modeling/Q9 Did CM help SU?/Yes/Ratings etc -> Discussion & Info Sharing
(3 7 1 2) /Computer Modeling/Q9 Did CM help SU?/Yes/make Hard Decisions
(3 7 1 3) /Computer Modeling/Q9 Did CM help SU?/Yes/Can See Impact
(3 8) /Computer Modeling/Drawbacks of CM
(3 8 1) /Computer Modeling/Drawbacks of CM/Distanced from reality
(3 8 2) /Computer Modeling/Drawbacks of CM/Straightjacketed by Process
(3 8 3) /Computer Modeling/Drawbacks of CM/Criteria Problems
(3 8 4) /Computer Modeling/Drawbacks of CM/Felt Rushed
(3 8 5) /Computer Modeling/Drawbacks of CM/Concerned about ratings system
(3 8 6) /Computer Modeling/Drawbacks of CM/Manipulation of scoring
(3 8 7) /Computer Modeling/Drawbacks of CM/Short circuits su
(3 9) /Computer Modeling/CM is mysterious
(3 10) /Computer Modeling/CM almost invisible
(3 11) /Computer Modeling/Did confusion affect outcome?
(3 12) /Computer Modeling/Numbers make it seem objective
(3 13) /Computer Modeling/Model confirmed beliefs

(4) /Workshop - Overall Perception
(4 1) /Workshop - Overall Perception/Q25 Expectations
(4 1 1) /Workshop - Overall Perception/Q25 Expectations/Yes
(4 1 1 1) /Workshop - Overall Perception/Q25 Expectations/Yes/shared understanding
(4 1 1 2) /Workshop - Overall Perception/Q25 Expectations/Yes/achieved objectives
(4 1 1 3) /Workshop - Overall Perception/Q25 Expectations/Yes/Robust Process
(4 1 1 4) /Workshop - Overall Perception/Q25 Expectations/Yes/had low expectations
(4 1 1 5) /Workshop - Overall Perception/Q25 Expectations/Yes/Rational approach to dm
(4 1 1 6) /Workshop - Overall Perception/Q25 Expectations/Yes/Commitment
(4 2) /Workshop - Overall Perception/Q25 Workshop Strengths
(4 2 1) /Workshop - Overall Perception/Q25 Workshop Strengths/Focus
(4 2 2) /Workshop - Overall Perception/Q25 Workshop Strengths/Increases Understanding of Issues
(4 2 3) /Workshop - Overall Perception/Q25 Workshop Strengths/Decisions get made
(4 2 4) /Workshop - Overall Perception/Q25 Workshop Strengths/team building
(4 2 5) /Workshop - Overall Perception/Q25 Workshop Strengths/Objective process
(4 2 6) /Workshop - Overall Perception/Q25 Workshop Strengths/Visibility of DM
(4 2 7) /Workshop - Overall Perception/Q25 Workshop Strengths/Opens up discussion
(4 2 8) /Workshop - Overall Perception/Q25 Workshop Strengths/Holistic view of issues
(4 2 9) /Workshop - Overall Perception/Q25 Workshop Strengths/Rationally argued set of proposals
(4 2 10) /Workshop - Overall Perception/Q25 Workshop Strengths/makes you think in a different way
(4 2 11) /Workshop - Overall Perception/Q25 Workshop Strengths/Achieves desired outcomes
(4 2 12) /Workshop - Overall Perception/Q25 Workshop Strengths/Interaction
(4 2 13) /Workshop - Overall Perception/Q25 Workshop Strengths/Equitable footing & Diffuses power
(4 2 14) /Workshop - Overall Perception/Q25 Workshop Strengths/Flexible
(4 2 15) /Workshop - Overall Perception/Q25 Workshop Strengths/Achieve a shared, owned outcome
(4 2 16) /Workshop - Overall Perception/Q25 Workshop Strengths/Time to explore an issue
(4 3) /Workshop - Overall Perception/Q27 Workshop weaknesses
(4 3 1) /Workshop - Overall Perception/Q27 Workshop weaknesses/Too rushed
(4 3 2) /Workshop - Overall Perception/Q27 Workshop weaknesses/Distances you from reality
(4 3 3) /Workshop - Overall Perception/Q27 Workshop weaknesses/Constricted by process
(4 3 4) /Workshop - Overall Perception/Q27 Workshop weaknesses/Influenced by Powerful People
(4 3 5) /Workshop - Overall Perception/Q27 Workshop weaknesses/Time intensive
(4 3 6) /Workshop - Overall Perception/Q27 Workshop weaknesses/DC not meant for budget reductions
(4 3 7) /Workshop - Overall Perception/Q27 Workshop weaknesses/Doesn't handle full complexity of issues
(4 3 8) /Workshop - Overall Perception/Q27 Workshop weaknesses/Influenced by Facilitator
(4 3 9) /Workshop - Overall Perception/Q27 Workshop weaknesses/Couldn't explore options
(4 3 10) /Workshop - Overall Perception/Q27 Workshop weaknesses/Short circuits understanding
(4 3 11) /Workshop - Overall Perception/Q27 Workshop weaknesses/Should've

been involved in initial stages
(4 3 12) /Workshop - Overall Perception/Q27 Workshop weaknesses/Didn't involve all of the decision makers
(4 3 13) /Workshop - Overall Perception/Q27 Workshop weaknesses/Doesn't handle political dimension
(4 3 14) /Workshop - Overall Perception/Q27 Workshop weaknesses/Problems with criteria or options
(4 3 15) /Workshop - Overall Perception/Q27 Workshop weaknesses/Not all fully involved
(4 3 16) /Workshop - Overall Perception/Q27 Workshop weaknesses/Make up of group
(4 4) /Workshop - Overall Perception/Q28 General Comments & Observations
(4 4 1) /Workshop - Overall Perception/Q28 General Comments & Observations/Huge workload
(4 4 2) /Workshop - Overall Perception/Q28 General Comments & Observations/Facilitation is important
(4 4 3) /Workshop - Overall Perception/Q28 General Comments & Observations/Prework or preparation is important
(4 4 4) /Workshop - Overall Perception/Q28 General Comments & Observations/Lasting effects of DC
(4 4 5) /Workshop - Overall Perception/Q28 General Comments & Observations/Scientific Process
(4 4 6) /Workshop - Overall Perception/Q28 General Comments & Observations/Hard to sell to non participants
(4 4 7) /Workshop - Overall Perception/Q28 General Comments & Observations/Was only on one area
(4 4 8) /Workshop - Overall Perception/Q28 General Comments & Observations/Time well spent
(4 4 9) /Workshop - Overall Perception/Q28 General Comments & Observations/Process suggestions
(4 4 10) /Workshop - Overall Perception/Q28 General Comments & Observations/Process Comments
(4 4 11) /Workshop - Overall Perception/Q28 General Comments & Observations/Hard to balance detail vs comprehensiveness
(4 4 12) /Workshop - Overall Perception/Q28 General Comments & Observations/Appears scientific but isn't
(4 4 13) /Workshop - Overall Perception/Q28 General Comments & Observations/Repeat DCs not as good
(4 4 14) /Workshop - Overall Perception/Q28 General Comments & Observations/DC process is outdated
(4 4 15) /Workshop - Overall Perception/Q28 General Comments & Observations/DC not appropriate for all dm
(4 4 16) /Workshop - Overall Perception/Q28 General Comments & Observations/Needs mngt & exec support to work
(4 4 17) /Workshop - Overall Perception/Q28 General Comments & Observations/Needs the will to make it work
(4 4 18) /Workshop - Overall Perception/Q28 General Comments & Observations/Make up of group is important
(5) /DC Process - Description
(5 1) /DC Process - Description/(PlaceName)
(5 4) /DC Process - Description/(PlaceName)'s two models
(8) /Outcome
(8 1) /Outcome/Q10 Outcome Defined
(8 1 1) /Outcome/Q10 Outcome Defined/(PlaceName) Outcome
(8 2) /Outcome/Q11 How I felt re Outcome
(8 2 1) /Outcome/Q11 How I felt re Outcome/Disagreed with Outcome
(8 2 2) /Outcome/Q11 How I felt re Outcome/Not very good (emotionally)
(8 2 3) /Outcome/Q11 How I felt re Outcome/Not achievable
(8 2 4) /Outcome/Q11 How I felt re Outcome/Academic Exercise
(8 2 5) /Outcome/Q11 How I felt re Outcome/Would try not to implement it

(8 2 6) /Outcome/Q11 How I felt re Outcome/Expected it
(8 2 7) /Outcome/Q11 How I felt re Outcome/Worried - others see it as final decision
(8 2 8) /Outcome/Q11 How I felt re Outcome/Not surprised
(8 2 9) /Outcome/Q11 How I felt re Outcome/Just a stage in the DM process
(8 2 10) /Outcome/Q11 How I felt re Outcome/No decision was made
(8 2 11) /Outcome/Q11 How I felt re Outcome/Happy; pleased with it
(8 2 12) /Outcome/Q11 How I felt re Outcome/Too crude
(8 2 13) /Outcome/Q11 How I felt re Outcome/Q30 Best Bet
(8 2 13 1) /Outcome/Q11 How I felt re Outcome/Q30 Best Bet/Not the best bet
(8 2 13 2) /Outcome/Q11 How I felt re Outcome/Q30 Best Bet/Was the Best Bet
(8 2 14) /Outcome/Q11 How I felt re Outcome/Prtovides a pattern to follow
(8 3) /Outcome/Q12&Q13 Personally committed?
(8 3 1) /Outcome/Q12&Q13 Personally committed?/Yes - Committed
(8 3 1 1) /Outcome/Q12&Q13 Personally committed?/Yes - Committed/Best Bet or Least Worst
(8 3 1 2) /Outcome/Q12&Q13 Personally committed?/Yes - Committed/Most rational process; decision
(8 3 1 3) /Outcome/Q12&Q13 Personally committed?/Yes - Committed/Agreed with each other
(8 3 1 4) /Outcome/Q12&Q13 Personally committed?/Yes - Committed/Agreed with outcome
(8 3 2) /Outcome/Q12&Q13 Personally committed?/No- Not Committed
(8 3 2 1) /Outcome/Q12&Q13 Personally committed?/No- Not Committed/Not Achievable; not realistic
(8 3 2 2) /Outcome/Q12&Q13 Personally committed?/No- Not Committed/Doesn't reflect my values
(8 3 2 3) /Outcome/Q12&Q13 Personally committed?/No- Not Committed/Commit not the right word
(8 3 3) /Outcome/Q12&Q13 Personally committed?/Some Commitment
(8 3 4) /Outcome/Q12&Q13 Personally committed?/Compliance
(8 4) /Outcome/Q14 Personal reservations?
(8 4 1) /Outcome/Q14 Personal reservations?/Forced to do it
(8 4 2) /Outcome/Q14 Personal reservations?/Uncertain about decision
(8 4 3) /Outcome/Q14 Personal reservations?/Reservations re amount they had to cut
(8 4 4) /Outcome/Q14 Personal reservations?/Some will be difficult to implement
(8 5) /Outcome/Q15 Feel responsible for Outcome?
(8 5 1) /Outcome/Q15 Feel responsible for Outcome?/Shared responsibility
(8 5 2) /Outcome/Q15 Feel responsible for Outcome?/It was inevitable
(8 5 3) /Outcome/Q15 Feel responsible for Outcome?/Quite responsible
(8 5 4) /Outcome/Q15 Feel responsible for Outcome?/No longer relevant
(8 6) /Outcome/Q16 How others felt re Outcome
(8 6 1) /Outcome/Q16 How others felt re Outcome/Not Achievable
(8 6 2) /Outcome/Q16 How others felt re Outcome/Not very good (emotionally)
(8 6 3) /Outcome/Q16 How others felt re Outcome/Horrified
(8 6 4) /Outcome/Q16 How others felt re Outcome/Pleased
(8 6 5) /Outcome/Q16 How others felt re Outcome/Worried it would be seen as the final decision
(8 6 6) /Outcome/Q16 How others felt re Outcome/Not unhappy
(8 6 7) /Outcome/Q16 How others felt re Outcome/Not surprised
(8 6 8) /Outcome/Q16 How others felt re Outcome/Happy to have reached a decision
(8 6 9) /Outcome/Q16 How others felt re Outcome/Too crude; not realistic
(8 6 10) /Outcome/Q16 How others felt re Outcome/Uneasy; not happy
(8 7) /Outcome/Q17 CM affect confidence?
(8 7 1) /Outcome/Q17 CM affect confidence?/No
(8 7 1 1) /Outcome/Q17 CM affect confidence?/No/No - but structure did
(8 7 2) /Outcome/Q17 CM affect confidence?/Yes - enhanced
(8 7 2 1) /Outcome/Q17 CM affect confidence?/Yes - enhanced/Rational, objective

process
(8 7 2 2) /Outcome/Q17 CM affect confidence?/Yes - enhanced/Structure
(8 7 2 3) /Outcome/Q17 CM affect confidence?/Yes - enhanced/Developed a close understanding
(8 7 3) /Outcome/Q17 CM affect confidence?/Yes - decreased
(8 7 3 1) /Outcome/Q17 CM affect confidence?/Yes - decreased/Felt stupid
(8 7 3 2) /Outcome/Q17 CM affect confidence?/Yes - decreased/Skeptical about ratings
(8 8) /Outcome/Q18 CM impact on commitment?
(8 8 1) /Outcome/Q18 CM impact on commitment?/No
(8 8 2) /Outcome/Q18 CM impact on commitment?/Yes
(8 8 2 1) /Outcome/Q18 CM impact on commitment?/Yes/Forces you to be explicit about values
(8 8 2 2) /Outcome/Q18 CM impact on commitment?/Yes/Rational Process
(8 8 2 3) /Outcome/Q18 CM impact on commitment?/Yes/Only through more discussion
(8 9) /Outcome/Q19 Level of SU affect my commitment?
(8 9 1) /Outcome/Q19 Level of SU affect my commitment?/Felt better having shared views
(8 9 2) /Outcome/Q19 Level of SU affect my commitment?/Not sure all understood issues
(8 9 3) /Outcome/Q19 Level of SU affect my commitment?/Yes - developed a shared view
(8 9 4) /Outcome/Q19 Level of SU affect my commitment?/Views became public to group
(8 10) /Outcome/Q20 Level of SU affect group's commitment?
(8 11) /Outcome/Q22&Q23 Feasibility
(8 11 1) /Outcome/Q22&Q23 Feasibility/Q22 Feasibility - My View
(8 11 1 1) /Outcome/Q22&Q23 Feasibility/Q22 Feasibility - My View/Perhaps, but not acceptable
(8 11 1 2) /Outcome/Q22&Q23 Feasibility/Q22 Feasibility - My View/Achievable
(8 11 1 3) /Outcome/Q22&Q23 Feasibility/Q22 Feasibility - My View/Not feasible
(8 11 1 4) /Outcome/Q22&Q23 Feasibility/Q22 Feasibility - My View/Mixed - some will be difficult
(8 11 2) /Outcome/Q22&Q23 Feasibility/Q23 Feasibility -Other's views
(8 11 2 1) /Outcome/Q22&Q23 Feasibility/Q23 Feasibility -Other's views/Mixed views
(8 11 2 2) /Outcome/Q22&Q23 Feasibility/Q23 Feasibility -Other's views/No Choice
(8 11 2 3) /Outcome/Q22&Q23 Feasibility/Q23 Feasibility -Other's views/Feasible
(8 11 2 4) /Outcome/Q22&Q23 Feasibility/Q23 Feasibility -Other's views/Not sure
(8 12) /Outcome/Q24 Willingness to Implement
(8 12 1) /Outcome/Q24 Willingness to Implement/No
(8 12 1 1) /Outcome/Q24 Willingness to Implement/No/Just a stage in the DM process
(8 12 1 2) /Outcome/Q24 Willingness to Implement/No/Hope we wouldn't have to
(8 12 1 3) /Outcome/Q24 Willingness to Implement/No/Reluctant to implement it
(8 12 1 4) /Outcome/Q24 Willingness to Implement/No/But will do it if we have to
(8 12 1 5) /Outcome/Q24 Willingness to Implement/No/Didn't use any of it
(8 12 2) /Outcome/Q24 Willingness to Implement/Yes
(8 12 2 1) /Outcome/Q24 Willingness to Implement/Yes/Already using it
(8 12 2 2) /Outcome/Q24 Willingness to Implement/Yes/Self Interest
(8 12 2 3) /Outcome/Q24 Willingness to Implement/Yes/Yes - but maybe with changes
(8 12 3) /Outcome/Q24 Willingness to Implement/No longer relevant
(8 12 4) /Outcome/Q24 Willingness to Implement/Not at that stage
(8 13) /Outcome/Commitment - general
(8 13 4) /Outcome/Commitment - general/Involvement enhances commitment
(9) /Group Factors
(9 1) /Group Factors/Q21a Group Cohesion
(9 1 1) /Group Factors/Q21a Group Cohesion/Yes

(9 1 2) /Group Factors/Q21a Group Cohesion/Yes - in this instance
(9 1 3) /Group Factors/Q21a Group Cohesion/No
(9 1 4) /Group Factors/Q21a Group Cohesion/Mixed
(9 2) /Group Factors/Q21b Org Commitment
(9 2 1) /Group Factors/Q21b Org Commitment/Yes
(9 2 2) /Group Factors/Q21b Org Commitment/No
(9 2 3) /Group Factors/Q21b Org Commitment/Mixed
(9 3) /Group Factors/DC group inappropriate
(9 4) /Group Factors/Members tougher than officers
(11) /INTERVIEWS
(11 1) /INTERVIEWS/QUESTIONS
(11 1 1) /INTERVIEWS/QUESTIONS/Qu'n 1
(11 1 2) /INTERVIEWS/QUESTIONS/Qu'n 2
(11 1 3) /INTERVIEWS/QUESTIONS/Qu'n 3
(11 1 4) /INTERVIEWS/QUESTIONS/Qu'n 4
(11 1 5) /INTERVIEWS/QUESTIONS/Qu'n 5
(11 1 6) /INTERVIEWS/QUESTIONS/Qu'n 6
(11 1 7) /INTERVIEWS/QUESTIONS/Qu'n 7
(11 1 8) /INTERVIEWS/QUESTIONS/Qu'n 8
(11 1 9) /INTERVIEWS/QUESTIONS/Qu'n 9
(11 1 10) /INTERVIEWS/QUESTIONS/Qu'n 10
(11 1 11) /INTERVIEWS/QUESTIONS/Qu'n 11
(11 1 12) /INTERVIEWS/QUESTIONS/Qu'n 12
(11 1 13) /INTERVIEWS/QUESTIONS/Qu'n 13
(11 1 14) /INTERVIEWS/QUESTIONS/Qu'n 14
(11 1 15) /INTERVIEWS/QUESTIONS/Qu'n 15
(11 1 16) /INTERVIEWS/QUESTIONS/Qu'n 16
(11 1 17) /INTERVIEWS/QUESTIONS/Qu'n 17
(11 1 18) /INTERVIEWS/QUESTIONS/Qu'n 18
(11 1 19) /INTERVIEWS/QUESTIONS/Qu'n 19
(11 1 20) /INTERVIEWS/QUESTIONS/Qu'n 20
(11 1 21) /INTERVIEWS/QUESTIONS/Qu'n 21
(11 1 22) /INTERVIEWS/QUESTIONS/Qu'n 22
(11 1 23) /INTERVIEWS/QUESTIONS/Qu'n 23
(11 1 24) /INTERVIEWS/QUESTIONS/Qu'n 24
(11 1 25) /INTERVIEWS/QUESTIONS/Qu'n 25
(11 1 26) /INTERVIEWS/QUESTIONS/Qu'n 26
(11 1 27) /INTERVIEWS/QUESTIONS/Qu'n 27
(11 1 28) /INTERVIEWS/QUESTIONS/Qu'n 28
(11 1 29) /INTERVIEWS/QUESTIONS/Qu'n 29
(11 1 30) /INTERVIEWS/QUESTIONS/Qu'n 30