A Processual Account of Organisational Change:

Focusing Attention on Interaction and Emergence.

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Abstract.

A Processual Account of Organisational Change: Focusing Attention on Interaction and Emergence.

This research proposes organisational change as unpredictable and emergent, through the process of changing patterns of relating between participants (Stacey, 2011). This contrasts with prescribed frameworks such as Six Sigma, which use a structured DMAIC (define, measure, analyse, improve, control) methodology to prescribe what managers should be doing to influence teams in order to achieve forecasted targets.

The research addresses the current limitations in understanding emergent outcomes during planned organisational change programs, where it is reported that two-thirds of such initiatives fail (Burnes and Jackson, 2011). I respond to calls for further research into how change comes into being and what managers do during planned programs such as Six Sigma (Korica *et al*, 2015; Albliwi *et al*, 2015; Chia, 2014; Hughes, 2011).

As a practising manager, my experience highlighted unexpected outcomes during Six Sigma change programs, which included research findings from my MBA dissertation (McDermott, 2006). The research is conceptually grounded in a processual approach of studying organisational change and management practice and makes original contributions through my approach to:

i. Theory of emergent, organisational change. I adopt complex responsive processes of relating (Stacey, 2011) as my lens for research where, "changes in conversations are changes in organisations" (p.365).
ii. Methodology. I operationalise Stacey's (2011) theory through an original contribution of combining 'at-home' ethnography (Alvesson, 2003), 'living life as enquiry' (Marshall, 1999) and gaining knowledge as an involved manager through the hermeneutic circle (Introna, 1997).
iii. Management practice. As a practising manager, I pay attention amongst other participants through my interpretative framework, highlighting the detailed contribution of the changing patterns of relating to emergent change. This contrasts with planned organisational change through Six Sigma, which espouses management influence of teams to achieve forecasted targets.

Specific research questions guide the investigation and the findings include cancelled Six Sigma initiatives and the associated wasted time and cost, including personnel leaving the business. In contrast, other initiatives demonstrated enthusiastic participation through changing conversations, which contributed to exceeding the forecasted Six Sigma targets.

I have revised the DMAIC methodology and propose that managers can participate creatively in Six Sigma programs through my new DMAIR model (Figure 9.2), which prioritises ongoing conversations. Volunteers can participate in a trusting environment where targets are redefined through a practice of embracing unknown emergent change, which contrasts with the language of predict and control in Six Sigma programs.

Acknowledgements.

I completed my part-time MBA in 2006 and as a practising manager using Six Sigma, I experienced fantastic team working with talented personnel. My training promoted the achievement of planned organisational change through managers influencing Six Sigma teams. However, I struggled to make sense of outcomes which seemed to be much more unpredictable and emergent. I became fascinated about how emergent organisational change comes into being and what managers actually do during Six Sigma programs.

Initial conversations with my Director of Studies; Dr Svetlana Cicmil, inspired research which could add to the field of emergent organisational change and management practice. Together with Dr Peter Simpson, my supervisory team believed in my ability to conduct original research as a practising manager and their support was collaborative, but also challenging. I thank them sincerely for their guidance, which was crucial in maintaining my enthusiasm and confidence to complete the research. I would also like to thank my examiners for a testing, but fair and stimulating Viva. The interaction inspired me to address amendments, not for compliance, but to elevate the Thesis into a useful addition to the academic field and for practitioners implementing organisational change programs.

I would like to thank all of the relevant personnel at Bristol Business School, particularly Dr Helen Frisby, Helen Jackson and Samantha Watts, who were always so helpful throughout the process. Beneficial advice from Dr Charlotte Von Bulow was much appreciated at a particularly critical time, during the latter stages of my study. Special thanks go to all work colleagues involved in the research as it would have been impossible without their committed participation. They trusted me to undertake confidential research and I am delighted to have repaid them by uncovering insights that has encouraged their enthusiastic participation in subsequent Six Sigma change programs. Particular thanks go to Rory O'Callaghan and Dr John Thomas, for their sound advice and honest feedback.

Support from my family and friends ensured the research remained in perspective, which gave me a sense of balance and reassurance. I am thankful for guidance from my parents, my sister, Theresa and father-in-law, Melv, who are no longer with us, but learning from their wise qualities over many years helped me as a person and a manager. Covid-19 has been a testing time for everyone, but one of the positive outcomes was our mother-in-law, Toni, coming to stay and I thank her for the never-ending supply of tea and biscuits!

During an exciting, challenging and stressful journey, one person stood head and shoulders above everyone: my deepest thanks go to my wife, Nicky. She has been selfless and unflinching in her total support and belief in me. I simply could not have completed the research without Nicky's encouragement, so the Thesis is a shared effort.

I am immensely proud of my children, Kieran and Connie, who have grown into fantastic young adults. I'm grateful for their patience and support, especially at a time when they are undertaking their own graduate studies. The study was a team effort, so I'd like to reiterate my genuine thanks to my supervisory team, BBS personnel, work colleagues, friends and last but not least; all of the McDermott's!

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Chapter 1. Introduction.

As a practising manager I have experienced organisational change through Six Sigma business improvement programs, where my role required me to influence team initiatives in order to achieve forecasted targets. The reality was more complex and unsettling, as I could not comprehend why unexpected outcomes occurred, even though I followed the prescribed methodology.

Hahn (2005) describes how Motorola used Six Sigma as an organisational change program to significantly improve business performance. Others also believe in the efficacy of such change management programmes (Antony *et al*, 2018; Schroeder *et al*, 2008; Kumar *et al*, 2008) but there are contrasting views. Burnes and Jackson (2011) cite the McKinsey consulting group in stating two thirds of such organisational change programs fail and Warner Burke (2011) estimates an even higher rate of seventy percent. As businesses strive to be competitive in their respective markets, senior executives face a classic paradox, as proposed by Burnes and Jackson (2011):

> "We have to change, but most of our change initiatives fail" (p.134).

My Six Sigma managerial training was carried out by Qualtec Consulting Group (QCG, 2003) which was predominantly based on the positivist notion of capable managers predicting and controlling outcomes through a prescribed DMAIC methodology (define, measure, analyse, improve, control). However, I felt a lack of control regarding the surprising emergence of unexpected outcomes during Six Sigma change programs, which included work carried out on my MBA dissertation (McDermott, 2006).

I became disillusioned with Six Sigma as I frequently felt uncomfortable and even incompetent. Forecasted targets were not achieved, which led to feeling the pressure of senior executive scrutiny. Reflecting on my professional experience was enhanced by a review of relevant change management literature, which prompted me to question the positivist view of managerial control.

Stacey (2011) refutes the notion that powerful leaders are able to prescribe change through programs such as Six Sigma:

> "Instead of change occurring as a result of the plan, change program, or vision of leaders or dominant coalitions, change emerges in many local interactions in which leaders and the most powerful are very influential participants, but participants nonetheless" (p.442).

From reflecting my experience and associated literature, I concluded that structured change programs could not provide a defined recipe for achieving forecasted targets because the future is fundamentally unknown and unknowable. However, this posed a

question of how organisational change actually comes into being and what is the role of the manager in the process of change. Korica *et al* (2015) call for further investigations into the nature of management work (what managers actually do) as this is often missing in empirical studies.

In this study, I set out to gain an understanding of how emergent change comes into being and what managers contribute to this process. This is encapsulated in an overarching research question:

> "What do managers actually do during a planned organisational change program and how does change come into being?"

Research was carried out in my own organisation as a practising manager. In the following section I discuss the background of the company, the 'Make It Yours' program and the context of Six Sigma being used to attempt planned organisational change.

1.1 Research Context: The 'Make It Yours' Change Program.

In order to maintain anonymity, I use pseudonyms for personnel, aspects of the company and names associated with the change program initiatives. I conducted the research between 2012 and 2016 during the Make It Yours organisational change program at a manufacturing company, which was listed in the FTSE 100.

The newly appointed CEO, Robert, publicised the Make It Yours organisational change program, which included the intention of achieving business improvements through Six Sigma. In addition, there was an aggressive strategy of growth through the acquisition of several European and American companies. The program included a vision of doubling the size and profitability of the company in order to, "become the leading supplier in our market". The tangible feeling associated with the extent of organisational change is shown in an informal comment from a senior manager:

> "Robert has made more changes in the last 15 months than the previous CEO did in 15 years".

During the research period, ten companies were acquired, with several of the individual investments costing hundreds of millions of pounds. The industry was consolidating into fewer, but larger organisations which resulted in three companies making up a significant share of the European market. We also entered the American market, where Six Sigma was being used as an organisational change program. The scale of the company expansion was highlighted by the sales turnover increasing from £1.5 billion to over £4 billion.

Acquisitions of French, Spanish, Swedish and American companies resulted in tangible changes at local manufacturing plants. There was a total re-branding program, which was formally publicised at the end of 2013. A new company logo and Make It Yours emblem was prominently displayed for all branding across the organisation, such as letter

headings, PC screen displays, emails, signage and work wear. All building exteriors, receptions and offices were refurbished to a standardised design with corporate colours and the research site was completed early in 2014.

One example of imposing the standardised re-branding program included changing the main sign illustrating the company name at the entrance to the factory shop-floor. The replacement prominently displayed the name and new logo, but also contained the name of the town in small text. During a factory tour by senior executives, a director instructed me to get the local town name removed from the sign to ensure complete standardisation across all plants. Six Sigma promotes this approach, but local managers thought their local identity was undermined by removing the site name, which was critically described as, "so-called best practice".

Adopting best practice from acquired companies also resulted in structural changes. For example, service departments at local sites were removed and replaced by a new centralised function. The central service centre (CSC) was set up in a separate location to the manufacturing facilities to deal with Finance, Procurement, IT Services and Human Resources, which resulted in local personnel relocating or losing their jobs.

Some of the acquired manufacturing plants in Europe and America used Six Sigma and this was adopted as best practice for implementation of organisational change across the UK. Six Sigma was initially conceived as a quality improvement tool, based on a mathematical measure which defines a process as being robust enough to produce no more than 3.4 defects for every one million outputs. As a method for reducing defects, statistical measurement methods are used to predict whether the manufacturing process is reliable enough to maintain this level of quality assurance.

Chapter two, section 2.2, outlines the detail of the development and expansion of using Six Sigma as an organisational change program, demonstrated by 'world class' companies, such as General Electric (Hahn, 2005). Implementing Six Sigma as more than a quality assurance technique is achieved through the DMAIC methodology (define, measure, analyse, improve, control). The intention is engaging teams in broader manufacturing improvement initiatives to achieve planned organisational change.

The DMAIC methodology was described in my training by QCG (2003) as "the antithesis of tampering", where Six Sigma teams follow logical steps in order to achieve forecasted targets, as shown below.

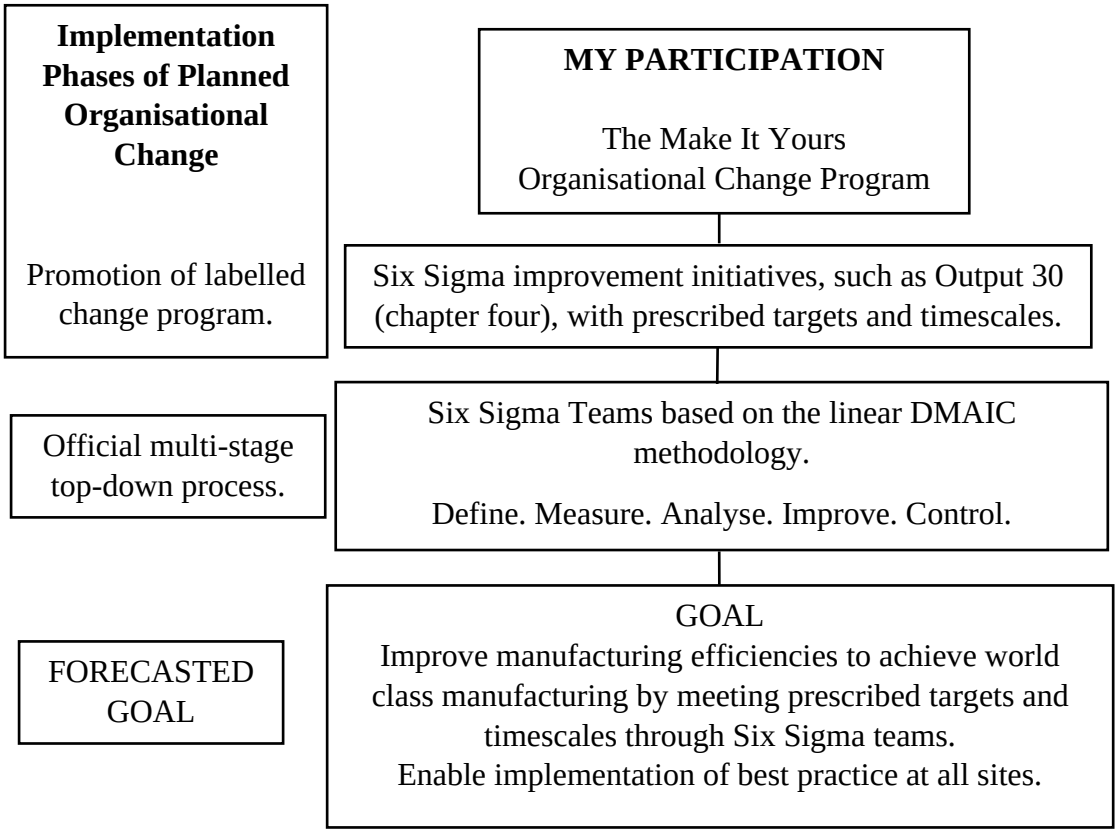
i. Define. Forecast the goal, target, timescale and set the initial scope.
ii. Measure. Set baseline quantitative measures for the forecasted target.
iii. Analyse. Quantitative data analysis to identify improvements.
iv. Improve. Manage the improve phase.
v. Control. Manage, embed and control sustainable change.

The DMAIC methodology was designed to predict and define the scope of manufacturing change initiatives with the intention of controlling an improved outcome.

> "Understanding the practical problem and converting it to a statistical problem and solving it through statistical methods. Then the statistical solution is converted to a practical solution" (QCQ, 2003).

Kotter (1996) argues that planned organisational change programs such as Six Sigma are achieved through linear phases of implementation which are managed and controlled. The prescribed phases start with naming and labelling the planned change program and managing a top-down process with forecasted goals. The model is adapted to reflect the Make It Yours program and the implementation of Six Sigma, as shown in Figure 1.1.

Figure 1.1. Formal Implementation Phases of Six Sigma (adapted from Kotter 1996)



The following example is a relatively straightforward Six Sigma initiative called 'core values', which was intended to be implemented and controlled by managers. By contrast, this initiative led me to understand just how uncontrollable emergent change can be.

1.1.1 Illustration: Six Sigma 'Core Values'.

One of my first experiences of the Make It Yours change program was receiving a pamphlet which highlighted five, specific 'core values', including 'leadership' and 'determination'. These were deemed as necessary management capabilities to successfully implement Six Sigma. I assumed the aim was highlighting the focus on managers to embed the Make It Yours program. However, it prompted me to wonder:

"Am I not trying my best already?"

Although it felt like a critique of my efforts as a manager, my over-riding feeling was ambivalence. Based on informal conversations, I assumed the larger scale Six Sigma improvement initiatives would become the priority and so the listed core values did not feel important enough to remember. To my surprise, the significance of knowing these values became evident as part of a best practice audit conducted across all UK sites.

The quantifiable scores from the audit contributed to a benchmarking measure of the site's managerial capability against the rest of the UK. Managers were required to recall the five values to the auditor in order to gain the optimum score, which felt like a tick box exercise rather than demonstrate any change in management practice. This feeling was expressed during informal conversations at a local meeting of senior managers, when one of the team admitted they could not list the five values to the auditor, thereby reducing the score. The atmosphere was light-hearted, demonstrated by banter such as, "you've let us all down!" but the other managers admitted they could not recall the values either!

Remembering five words did not correlate with adopting those values, nor did it reflect the ability of a manager to control the implementation of Six Sigma initiatives. However, colleagues expressed concern about the possibility of forgetting the values in future audits. As a consequence, decorative signs were installed in the main office, spelling out the values. This could be perceived as management action which influenced a proactive change in behaviour by sharing and embedding these core values with others. In reality, informal discussions revealed the actions were merely a pragmatic tactic to obtain full marks during the next audit. The applied logic meant any participant could directly read the values from any location in the main office!

What had been intended as a contribution to improved organisational performance, instead diverted focus and energy into 'playing the game'. This is indicative of the Six Sigma program, where my attention as a manager was increasingly drawn towards acknowledging outcomes as uncontrollable and unpredictable. Weick (2004) suggests a positive aspect of embracing the notion of change as unknowable and emergent:

"The essence of wisdom is in knowing that one does not know" (p.662).

1.2 Research Aims and Objectives.

The overall intention of this thesis is to explore and contribute to our knowledge, regarding a processual understanding of emergent change. In addition, my research intends to assist managers in their ability to make sense of and cope with the implementation of planned organisational change programs, such as Six Sigma. Research is conducted through an immersive approach as a practising manager and participant in organisational change, along with other organisational members. The aim of the research is to uncover how emergent change comes into being through the detailed contributions of the complex processes of interaction between organisational participants.

The research responds to academic calls for further empirically based studies into organisational change initiatives that address the complex and ambiguous nature of how emergent change unfolds (Hughes, 2011). This study makes a contribution to addressing the current limitations in the understanding of organisational change and management practice through Six Sigma, which currently does not address the social emphasis of complex group dynamics (Albliwi *et al,* 2015; Strang and Jung, 2009; Kumar *et al,* 2008).

Much of the current literature regarding a processual understanding of organisational change (Chia, 2014; Nayak, 2008; Tsoukas and Chia, 2002) explores how change is emergent, but lacks clarity about how this comes about through the contribution of participants. Parker (2000) and Balogun and Johnson (2004) highlight the need for more research into the contribution of social interaction during organisational change programs. This specific focus is important if we are to gain an understanding of the role of managers in organisational processes and how they contribute to unpredictable change.

Stacey (2011) provides a theoretical lens for focusing research on the contribution of interaction to emergent change, through his theory of complex responsive processes of relating. He suggests that emergent change occurs through the changing patterns of relating between participants, which contrasts with the positivist belief of Six Sigma teams achieving planned change through the influence of management.

> "From a responsive processes' perspective, people interact with each other locally and in doing so produce population-wide patterns for which there are no global blueprints or programs. Furthermore, local interactions are iterative, that is, they are perpetually reproduced and they are non-linear, which means that differences, even very small ones from one iteration to the next are potentially amplified to produce novelty" (p.308).

Stacey provides an example of emergent change by summarising a relatively small dispute amongst baggage handlers at British Airways, which subsequently escalated to wider strike action involving a wider range of workers. Similarly, Hunter and Wiggins (2016) provide case studies of unpredictable change, but these findings are not interpreted from the perspective of a participant. Other seminal ethnographic fieldwork, such as Orlikowski (1996), highlights unpredictable change, but this research is conducted from the perspective of an outside researcher entering the work environment. The lack of clarity and detail regarding how unpredictable change emerges through changing interaction provided an opportunity for research as a practising manager.

I argue that there is scope to develop a more robust research methodology than is found in Stacey's work. The approach taken in this study adds to Stacey's perspective by exploring the experience of the organisational participants during my involvement as a practising manager. In summary, this study addresses the following research objectives:

i. Explore an alternative way of understanding organisational change which contrasts with the positivist notion of implementing the prescribed phases of Six Sigma (Figure 1.1). I intend to enhance the academic understanding of emergent

change by interpreting the contribution of the changing patterns of relating between participants.

ii. Examine how decisions are made through the prescribed initial conditions of the Six Sigma DMAIC methodology in an attempt to predict and control. The intention is to reveal how unexpected outcomes emerge through self-organising and unpredictable iterations of interaction.

iii. Illuminate how practising managers make sense of and attempt to cope during the implementation of planned organisational change programs. This will generate a range of proposals for practitioners in how to work more creatively and effectively with organisational change programs.

iv. Operationalise Stacey's (2011) theory of complex responsive processes of relating through further development of his methodological approach (chapter three). This will include learning from my professional experience amongst others, as well as drawing upon my wider experience amongst family and friends. The intention is to enable interpretations from my experience which contributes to the academic field of emergent change and is also useful for practising managers.

The nature of this study is exploratory and does not seek to provide a 'new' best practice of implementing organisational change. This would be entirely at odds with the notion of change as emergent and unpredictable. However, I do hope that this study will reflect Parker's sentiments (2000):

> "I would rather not "conclude", but instead encourage more thought" (p.231).

1.3 Further Research Questions.

As stated above, the overall research question guiding this study is:

> "What do managers actually do during a planned organisational change program and how does change come into being?"

Answering this question requires paying attention to the following themes and related research questions, which are aligned with the aims and objectives of this study. These themes are addressed in the chapters specified.

1.3.1 Emergent Change.

In exploring how emergent change comes into being during implementation of Six Sigma teams, the focus is on interpreting the empirical material relating to the patterns of interaction between participants (chapters four and five). This element of the research will be guided by the following question:

"How do the outcomes of the planned program of change initiatives emerge through changing patterns of relating within the Six Sigma teams?"

1.3.2 Management Practice.

A detailed investigation of participating in a Six Sigma team of local managers which was initially led by a centrally-based specialist, addresses the contribution of the changing patterns of relating to emergent change (chapter six). This allows a detailed interpretation of management practice regarding self-organising during a specific Six Sigma initiative, guided by the following research question:

"How does the changing patterns of relating between a local group of managers contribute to an emergent outcome during self-organising in a specific Six Sigma team?"

1.3.3 Learning from Lived Experience.

Learning through my lived experience provides insights from participating as a practising manager, in conjunction with family and friends (chapter seven). Three main sections investigate (a) the impact of the formal change program on local managers, (b) an encouraging experience of a Six Sigma team, and (c) insights from family and friends. These discussions are guided by the following research question.

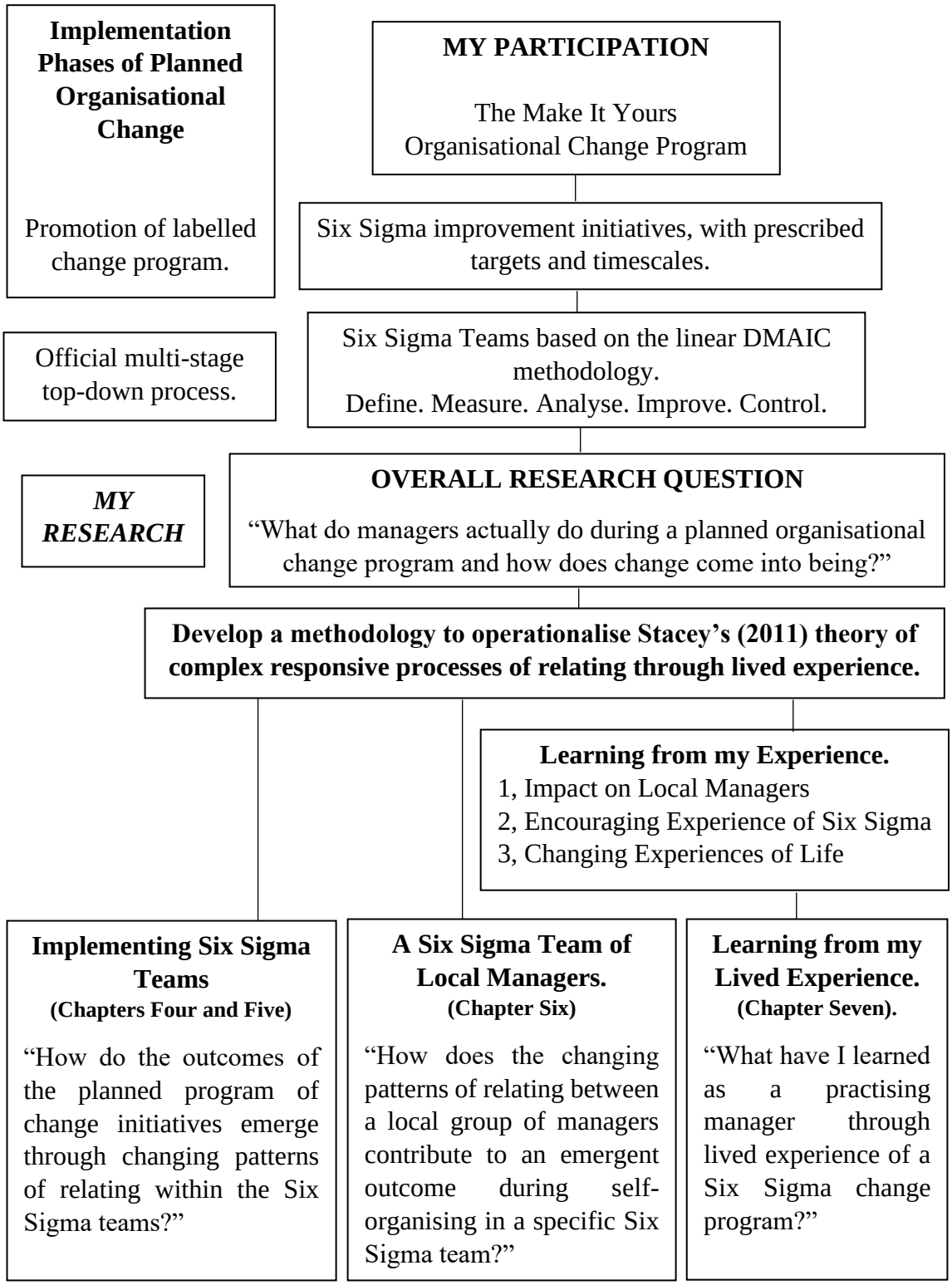
"What have I learned as a practising manager through lived experience of a Six Sigma change program?"

1.4 Summary Overview: A Processual Account of the Six Sigma Program.

In this section I provide a summary representation of the research process (see Figure 1.2). The top of the illustration represents the formal phases of implementing Six Sigma with the intention of achieving forecasted targets. This is followed by outlining the structure and contents of my study, which is guided by the overall research question.

Researching as a practising manager requires the development of an appropriate research methodology in order to operationalise Stacey's (2011) theory of complex responsive processes of relating, which is fully discussed in chapter three. The empirical chapters (four to seven) facilitated interpretation of the changing patterns of relating between participants which is guided by the respective research questions. The findings illuminate the contribution of changing interaction to emergent organisational change, management practice and learning from my experience, as outlined in chapter eight.

Figure 1.2. Researching a Processual Account of the Six Sigma Program.



1.5 Chapter Contents.

A summary of each chapter outlines a "route map", in order to provide an overview of the research (Saunders *et al*, 2003, p.420).

Chapter One. Introduction.

The introduction outlined my motivation to research organisational change due to my discomfort with positivist approaches to organisational change programs which culminated in unpredictable outcomes. The detail of the company and the context of implementing Six Sigma as an organisational change program has been outlined, which clarifies the research site as the base for conducting field work as a practising manager.

It is explained how this research explores significant issues which have not been sufficiently addressed in the organisational change research literature. It is argued that my reflexive interpretation of experience as a practising manager provides an original contribution by developing a robust research methodology that operationalises Stacey's (2011) theory, which is discussed in chapter three. The aims and objectives outlined the intention of this research, in terms of enhancing the current knowledge regarding emergent organisational change and management practice.

Chapter Two. Literature Review.

Chapter two reviews literature on the main research themes of organisational change and management practice. I discuss planned transformational change in the context of Six Sigma and explore alternative processual perspectives. I conclude by justifying my choice of Stacey's (2011) theory of complex responsive processes of relating as a lens for my research. This provides a basis for an interpretative framework in order to gain insights from empirical material in chapters four to seven. These initial insights provided a basis for further interpretation and the overall findings are discussed in chapter eight.

Chapter Three. Research Methodology.

This chapter discusses the detail of developing a robust research methodology to operationalise Stacey's (2011) theory of complex responsive processes of relating, based on my lived experience as an involved manager. An original combination of at-home ethnography (Alvesson, 2003) and living life as enquiry (Marshall, 1999) uncovers insights from a reflexive approach of using the hermeneutic circle (Introna, 1997).

Critically, this addresses my reflexive interpretation of empirical material gathered over four years as a practising manager, including interactions with family and friends, which amounted to 753,000 words. Chapter three covers issues of validity, reliability and generalisability, in conjunction with an ethical approach of ensuring the anonymity of participants and associated organisations.

Chapter Four. Commencing Six Sigma: The Output 30 Initiative.

Chapter four highlights emergent change during the initial implementation of the Six Sigma program. The discussion relates to empirical material gathered whilst participating in the Output 30 Six Sigma team, led by a centrally based specialist. Insights were gained from changing interaction which started with formal support from senior personnel and some promising signs of engagement. However, changing themes of conversation undermined the initiative and an unpredictable emergent outcome was demonstrated as Output 30 was eventually cancelled. Insights through my interpretative framework justified continued research into subsequent national Six Sigma initiatives.

Chapter Five. National Six Sigma Initiatives.

Chapter five discusses empirical material arising from the next phase of Six Sigma implementation, through nationally based initiatives. National Six Sigma teams were led by nominated manufacturing managers, including myself, and the overall sponsorship was conducted by senior directors. A formal attempt at greater control was demonstrated by appointing new Six Sigma leaders, but unpredictable, emergent outcomes included multiple cancellations. Insights indicated the substantial waste of time and resource from cancellations that emerged from the complex, changing interaction amongst participants.

Chapter Six. A Local Six Sigma Team Initiative.

A local Six Sigma team was initially led by a centrally based procurement manager. The intention was conducting a twelve-week analysis of several financial tenders to choose a preferred transport supplier, which actually went on for a year. This investigation provides a greater level of detailed interpretation of management practice as unplanned emergent change comes into being.

The findings highlight the detail of the changing patterns of relating between the managers and how this contributed to emergent change. Change continued to emerge up until the final meeting and beneficial results were demonstrated by exceeding the forecasted Six Sigma financial savings target. The initial interpretations were encouraging in terms of proposals for working constructively with Six Sigma, which contributes to the overall discussion of findings in chapter eight.

Chapter Seven. Learning from my Experience.

In the first of three main sections, the considerable impact of the national Six Sigma program on local managers is shown through several personnel unexpectedly leaving the business. Although the previous chapters highlight several problematic scenarios, the second section investigates a more positive experience of leading a Six Sigma team. The outcome did not match the forecasted objective, but the enthusiastic interaction amongst participants demonstrated creative contributions to explore unplanned, emerging opportunities. In the final section, I reflect on learning from changing interactions with family and friends as part of living life as enquiry (Marshall, 1999). I highlight conversations from inside and outside the work environment, which continues to change my management practice towards adopting a humble and empathetic approach.

Chapter Eight. Discussion.

In chapter eight I discuss and interpret the findings by revisiting my research questions. I highlight a processual perspective of emergent change through the changing patterns of relating between self-organising participants. I bring together the initial insights from empirical material presented in chapters four to seven and conduct a deeper interpretation of my whole experience in section 8.5. I make proposals for managers to work proactively with Six Sigma, through interpretations from participating in each of the initiatives and learning from my experience over four years. The findings contribute to the current theoretical understanding of emergent change and also management practice.

Chapter Nine. Conclusion.

This chapter presents the overall conclusions from the study. The reflections highlight my changing outlook as a result of undertaking this study, which includes a discussion of the advantages and limitations of researching as a practising manager. I consider the contribution of the research towards other managers at my company, through new practices which have been adopted.

Interpretations from my experience facilitated the modification of the existing Six Sigma DMAIC methodology through a new revision, which I have called the DMAIR model (Figure 9.2). A flexible approach of redefining forecasted targets enabled the exploration of unplanned opportunities for emergent change through self-organising. This is aided by providing a practical understanding of Stacey's (2011) theory of complex responsive processes of relating for managers, which is based on my experience. I conclude with the contribution of the research to the theory of emergent change more broadly, a summary of the findings and proposals for further research.

Chapter 2. Literature Review.

In order to address the research questions, I critically discuss the relevant bodies of literature in this chapter, which culminates with my interpretative framework. I commence with an understanding of transformational change through the influence of leadership, espoused by my management training in Six Sigma (QCG, 2003) and the associated literature. This is followed by an overview of emergent change arising from the micro-processes of self-organising between participants. These contrasting views are discussed in the context of the research aims, intentions and questions.

I review the relevant literature regarding planned organisational change, with a specific focus on the implementation of Six Sigma. This addresses the formal intention of how and why local and national Six Sigma initiatives were implemented in an attempt to achieve forecasted outcomes. The literature on emergent change provides an understanding of the ongoing processes of organising and contrasts with the linear causality assumed by Six Sigma change programs. It explains why unpredictable outcomes emerge, regardless of a management focus on planning, monitoring and control.

As part of reviewing processual perspectives and complexity, Stacey's (2011) theory of complex responsive processes of relating is justified as a lens to understand change as uncontrollable and emergent. This is relevant to addressing my research questions by developing an interpretative framework in section 2.4, where I focus attention on the changing patterns of relating between participants.

2.1 Transformational and Emergent Change.

Anderson Strachan (1996, pp.33-35) describe transformational change as "large scale, fundamental and strategic". Findings are presented from the British Institute of Management regarding the increasing number of planned organisational change programs which are intended to help organisations to adapt to new levels of global competition. Termeer *et al* (2017) discuss transformational change by emphasising a discontinuous, step-change implementation towards an intended new state.

This perspective of transformational change mirrored my early managerial experience of positivist literature espoused by authors such as Peters and Waterman (1982). This view supports the achievement of transformational change through the intervention of influential senior executives, which Simpson (2012, p.2) describes as, "leader as hero". According to Anderson Strachan (1996), influential leaders can positively engage employees in a shared belief of achieving transformational change to become world class

organisations. Henderson (2002) proposes transformational change as more than altering systems and processes, as capable leaders can influence the way people in the organisation perceive their roles, responsibilities, and relationships.

Weick and Quinn (1999, pp.365-375) disagree with the view of transformation being "episodic", through discontinuous macro-level change influenced by leaders. They propose an alternative processual view, where transformational change emanates from the cumulative effect of ongoing emergence through the micro-processes of "recurrent interactions as the feedstock of organising". Burnes (2005, p.75) also espouses "continuous and unpredictable" perspectives of emergence, where the cumulative effect amounts to significant, transformative change.

Tsoukas and Chia (2002, p.567) argue that organisations should be viewed as a property of emergent change as unpredictable outcomes cannot be influenced through management. This reflects an ontological priority of the process of continual change through interconnected people, described as "organisational becoming". Chia (2014) supports this processual view, which he describes as "silent transformation" in terms of the process of ongoing emergent change.

> "From this process outlook, 'organisations' are nothing more than stabilised patterns of relations forged out of an underlying sea of ceaseless change" (p.8).

This perspective concurs with Weick and Quinn (1999, p.382), who suggest that change should not be understood as a transformational, "on-off phenomena". The cumulative effect may be viewed as transformational change, but the significant contrast to planned approaches is understanding the process as inherently unpredictable, uncontrollable and emergent. This idea of emergent change is discussed in greater detail in section 2.3.

In terms of how emergent change comes into being, Grey and Willmott (2005) suggest that complex outcomes are rooted in the social relationships of people organising together. This process is too complex for programs such as Six Sigma to control. The social emphasis of change emerging locally through organising is also proposed by Parker (2000).

> "These organisations are practically made and remade by people on an everyday basis, not by impersonal and trans-historical special forces. In other words, organisations are always local phenomena, even if they often contain strong echoes of things that are done elsewhere" (p.231).

According to Balogun and Johnson (2004, p.546), understanding the process of emergent change should be through the significance of relations between participants. They also conclude that further research is required to investigate a deeper understanding of the processes of social interaction and the contribution to unpredictable emergent change. Buchanan and Dawson (2007, p.674) suggest the significance of understanding discourse to gain a deeper understanding of organisational change processes, but warn against "single voiced narratives" in favour of proposing change as complex, political and multi-

voiced. On this basis, Chia (2014) justifies a requirement for further research into how change emerges uncontrollably through the complexity of participants organising together. He highlights accounts of unpredictable emergent outcomes and the need for further study.

> "Whilst research exists on specific forms of unintended consequences arising, such as resistance, how and why exactly this tends to happens remains unclear" (p.15).

Burnes (2005, p.77) identifies the potential for understanding emergent change through complex adaptive systems, where there is no reliance on positivistic laws of cause and effect. Stacey and his colleagues at the Complexity and Management Centre at the University of Hertfordshire are cited by Burnes (2005) for initiating proposals which go further than complex adaptive systems. Stacey's (2011) theory of complex responsive processes of relating proposes emergent change occurs through changing interaction between participants.

> "Organisational change is change in conversation" (p.331).

Recognising emergent change as unpredictable may enable practitioners to cope more effectively with implementing planned transformational programs such as Six Sigma. A useful contribution for the well-being of practitioners is reducing anxiety, caused by feeling a lack of control or incompetence when outcomes do not always meet expectations. Managers can reduce their anxiety by embracing a lack of management control as a normal and accepted part of their practice, as suggested by Suchman (2002).

> "Perhaps the most important practical contribution of complex responsive processes is to offer legitimisation for and remove the stigma of shame from our lack of control. Efforts to assert control, or at least maintain the illusion, have led to untold waste and suffering" (p.17).

2.2 Contrasting Assumptions of Six Sigma.

This section outlines the formal justification for implementing Six Sigma to achieve transformational change through business improvement initiatives, which were initially founded on a concept of statistical quality control. Contrasting views are also discussed, including proposals that the prescribed Six Sigma methodology inhibits self-organising amongst participants and restricts innovation.

Raja Sreedharan and Raju (2016, p.431) demonstrate the changing emphasis of Six Sigma from a quality control tool to a strategic program for organisational change through managed teams. They cite Furterer *et al* who contrast the initial concept of Six Sigma to

improve quality, with later work from Albliwi *et al* who outline the development and use of Six Sigma as a vehicle for planned organisational change.

Using Six Sigma to achieve organisational change is proposed by Antony *et al* (2018), Manville *et al* (2012), Schroeder *et al* (2008) and Kumar *et al* (2008). The linear DMAIC methodology outlined in chapter one consists of a series of steps; namely, define, measure, analyse, improve and control. Kumar *et al* (2008, p.88) frames the DMAIC steps by providing expanded definitions to reflect the broader context of organisational change programs, described as, "practically useful for knowledge management".

i.	Define.	Fact finding and defining the target.
ii.	Measure.	Data gathering and monitoring targets.
iii.	Analyse.	Information creation and capturing.
iv.	Improve.	Knowledge sharing and utilisation.
v.	Control.	Knowledge maintaining and control.

Gutiérrez Furtherer *et al* (2009) highlight substantial financial benefits from adopting Six Sigma by citing an example of General Electric saving $1.2 billion from team-based improvement initiatives. In the same way as my Six Sigma training (QCG, 2003), Brown and May (2010) suggest teams can be influenced to achieve forecasted outcomes through leadership.

> "Strong correlation of transformational leadership behaviour with desired organisational outcomes seems well established" (p.522).

Parker (2000, p.60) critiques the "management guru" approach as based on a very small sample of successful organisations measured by lagging indicators such as profit. According to Knights (1992), interventionist literature such as Porter (1985) creates an illusion of managerial expertise in order to reduce personal anxiety associated with an inherently uncertain future.

> "His [Porter's] work is attractive to management also because it contributes to the transformation of management practice into an expertise that is supported by knowledge. As a rational basis for managerial prerogative, this expertise provides some illusion of control, legitimacy and security in the face of uncertainty" (p.527).

Albliwi *et al* (2015) suggest there is a lack of literature to support the effectiveness of achieving strategic change through Six Sigma and propose the need for further studies. My research also responds to the request from Kumar *et al* (2008), for studies that bridge the gap between the theory and practice of managing intended planned organisational change through Six Sigma initiatives. The following sections discuss the formal intention of implementing Six Sigma based on an understanding of managers influencing outcomes through team engagement. According to Morgan (2006), the positive influence of management and focusing on teamwork can be understood using metaphors of machines and organisms respectively.

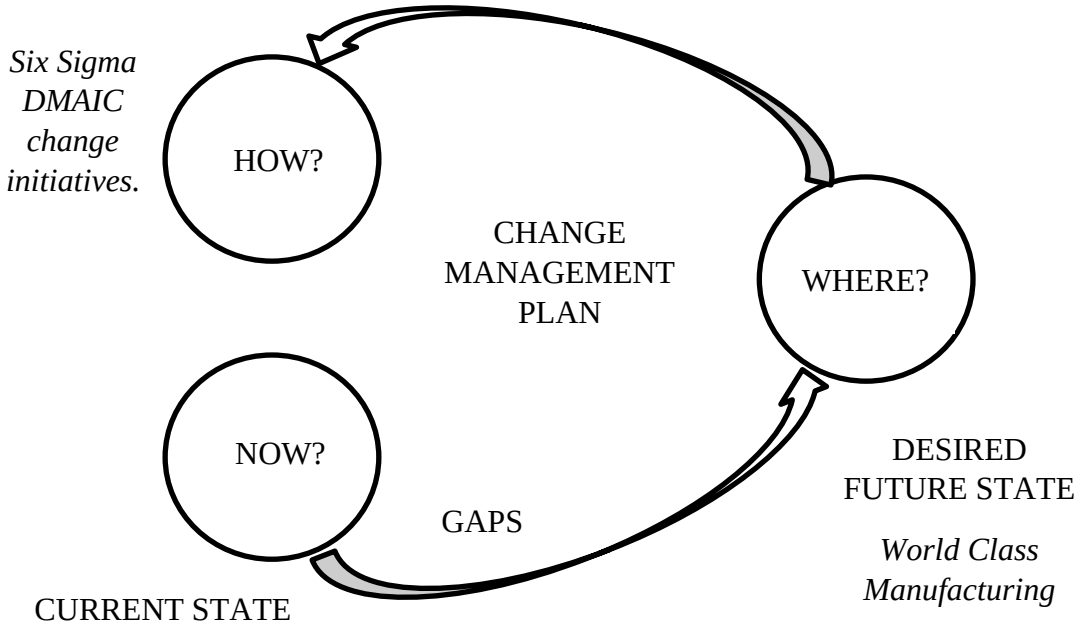
2.2.1 Organisations as Machines.

Morgan (2006, p.13) uses a metaphor of a machine for understanding an organisation as a controllable entity. The Six Sigma methodology is based on understanding organisations as machine-like entities which can be influenced through management to work more efficiently and achieve forecasted improvements.

Slack *et al* (2001) and DeWit and Meyer (2002, p.164) argue that managers can positively influence the "magnitude and pace" of episodic, planned change. Pettigrew, Woodman and Cameron (2001) highlight this approach through the influence of interventionist, charismatic leaders, described as "forceful intervention" by Linstead *et al* (2004, p.426).

According to Wiggins and Hunter (2016), many managers think this way as it is embedded in their psyche, based on training and implementing organisational change programs such as Six Sigma. The belief that managers can influence organisational change outcomes is represented in Figure 2.1 by Cocks (2014, p.89), as a "strategic thinking process". This has been adapted to represent the Six Sigma change program, in terms of planning improvement from the current state to a forecasted outcome of attaining world class manufacturing.

Figure 2.1. Strategic Thinking Process.
Adapted from Cocks (2014, p.89).



2.2.2 Organisations as Organisms.

Morgan (2006, p.33) uses organisms as a metaphor for understanding the complexity of team dynamics between participants. Wiggins and Hunter (2016) suggest an understanding which considers participants as thinking, feeling beings, where

interconnections between them influence events. The role of the manager is creating an environment to allow people to learn, adapt and enable knowledge creation through teams. Kotter and Rathberger (2006) provide an eight-step plan of promoting teamwork to achieve forecasted targets during unexpected conditions, which was used as part of the Six Sigma program. The intention is influencing teams towards committed engagement and consensus rather than solely considering an organisation as a controllable entity.

Crossan and Berdrow (2003) propose implementation of organisational change programs through optimising human resource (HR), as this can lead to gaining a competitive advantage through learning. Supporting change through HR, such as promoting personal development, teamwork and knowledge management is proposed by Theriou and Chatzoglou (2007).

> "The effective management and development of people is seen as critical in leveraging the firms rare and difficult to replicate resources, thus gaining an advantage over the competitors, leading to higher performance" (p.196).

However, Myers *et al* (2012) argues that this type of approach is still rooted in the machine metaphor, demonstrated by prescribed plans to achieve outcomes in the future, which cannot be predicted. They suggest the purpose of such literature is to relieve the anxiety of managers who want to control, but are unable to do so.

Swink and Jacobs (2012) suggest that the Six Sigma DMAIC methodology may constrain innovative exploration required for growth. This view is also shared by McAdam and Hazlett (2010, p.624) as change programs limit the "strategic effectiveness" of operating in a continually changing customer environment. According to Manville *et al* (2012), Six Sigma cannot deal with the complexity of relationships in teams, which in turn leads to a reduction in learning.

> "[Six Sigma] Will essentially result in inadequate learning and dynamic capabilities" (p.17).

2.2.3 Six Sigma as Best Practice.

Da Silveira and Sousa (2010, p.1236) conclude a positive correlation between the effective management of Six Sigma as best practice and achieving improved operational performance. Linderman *et al.* (2003, p.195) present a similar approach by describing Six Sigma as an "organised and systematic method for strategic improvement". Antony *et al* (2004) highlights Dow Chemicals, where database technology was used to implement the benefits of Six Sigma as best practice. This approach facilitated optimum performance across multiple sites through, "factual evidence rather than gut feeling" (p.10).

However, Martinez Leon *et al* (2012) provide a contrasting view of Six Sigma as being unproven in terms of achieving forecasted organisational change and propose the focus should be on dialogue and discussion. They refer to Nonaka (1991) and Senge (2006),

who propose free interaction to explore complex issues from different angles, in order to overcome the restrictive processes of best practice.

Mellat-Parast (2011, p.52) refute the notion of Six Sigma as best practice to achieve organisational change as innovative exploration is impeded. The inability of measurable Six Sigma tasks cannot sufficiently address behaviour and communication between participants, which is proposed as a requirement for innovative change. This relational view reflects the complex dynamics of participating and communicating in Six Sigma teams, which is addressed in the next section.

2.2.4 Six Sigma Teams.

The importance of teamwork in achieving change through disseminating a shared vision of Six Sigma is highlighted by Gutiérrez Gutiérrez *et al* (2009).

> "One of the pillars of the Six Sigma methodology" (p.153).

In a more recent publication, Gutiérrez Gutiérrez *et al* (2016, p.615) propose teamwork as the "building block" of implementing Six Sigma, but goes further in proposing successful teams facilitate knowledge creation. This perspective reflected my Six Sigma training (QCG, 2003), where gaining team consensus could be influenced by managers, which assists in achieving forecasted targets.

However, Martinez Leon *et al* (2012) point to the complexity of team dynamics as one of the main reasons for abandoning Six Sigma programs, due to the negative relationships amongst participants. Strang and Jung (2009, p.49) use a case study of a cancelled Six Sigma program, where a significant factor was resistance from managers who felt the initiative was an imposed, elite sponsored movement with a lack of team engagement. The failure stemmed from attempts to control from the top instead of allowing the time and freedom to engage with change from a "grass roots" approach.

Zou and Lee (2016) support a perspective that knowledge should be viewed as outcomes from relationships between team participants as their sense making is continuously formed, altered and re-formed through interactions. Albliwi *et al* (2015) and Strang and Jung (2009) highlight the need for further research into the relationships between team participants during the process of emergent change, which is reviewed in the following section.

2.3 Emergent Change.

In contrast to organisations viewed as entities which are manipulated through Six Sigma teams, I discuss processual perspectives of unpredictable emergent change. According to

Ogbonna and Harris (1998) the direction, impact and sustainability of ongoing change is not subject to the conscious action of management. The significant gap between management influence and actual outcomes is highlighted by Thompson and cited by Grey and Willmott (2005).

> "The vast majority of studies of empowerment demonstrate, through a variety of quantitative and qualitative methodologies, a massive gap between managerial claims and workplace outcomes" (p.369).

2.3.1 Processual Perspectives.

Chia (2014) suggests practitioners continue to rely on interventionist change programs such as Six Sigma as the prescribed methodology provides a sense of order and certainty. This understanding of change is still rooted in historical, well-known models such as Lewin's (1952) three-stage model of unfreeze, change and refreeze, which promotes the desired managerial ability to control.

Weick and Quinn (1999, p.382) recommend a focus on the process of "changing" rather than "change". Chia (2014) proposes that managers should adopt a deeper sense of reflection in order to understand the concept of unpredictable emergent change, which occurs through the natural process of every-day organising. This processual perspective of unpredictable emergent change is supported by Parker (2000), regardless of attempts at management control.

> "Culture is managed, in the sense of a managerial attempt at intervention, but the outcomes of this this intervention can never be totally controlled" (p.230).

Tsoukas (2005) highlights emergent outcomes during a prescribed TQM (Total Quality Management) change program adopted by the US Navy. The results of an interventionist approach, even in one of the most highly disciplined and prescribed environments did not match the forecasted targets. Unpredictable emergent change occurred through self-organising of participants as they did not always adhere to the planned actions.

A processual account of unpredictable emergence is also shown in an ethnographic study by Feldman (2000). Routines and rules were put in place by University management to control the traffic procedure regarding students moving into, or out of their campus accommodation. These formal rules appeared to demonstrate stability and control, but they were continually transformed as an increasing number of students started to implement their own preferred, unplanned processes.

Similar emergence is also demonstrated by Pettigrew, Woodman and Cameron (2001), who cite the ethnographic study of repair technicians by Orlikowski. This study illustrated small adjustments in actions and behaviour of those participants, which contributed to a cumulative process of ongoing, emergent change.

Tsoukas and Chia (2002) discuss these specific ethnographic studies and whilst they commend the benefits of highlighting emergent change, they also suggest there is a need for further research which pursues a more radically process orientated view. Although Feldman (2000) and Orlikowski (1996) illustrate outcomes as not matching the management plan, they do not elaborate on what it is about human participation that contributes to such ongoing change or how it actually emerges. Tsoukas and Chia (2002) suggest that future studies should give priority to micro-processes of organising and the part that managers play in this stream of ongoing, emergent change.

Chia and McKay (2007) narrow the focus by suggesting further studies are required to uncover the contribution of the micro-processes of behaviour and language to emergent change. They suggest this complexity has been overlooked due to high profile leaders supporting research which promotes their own preferred view of interventionist organisational change through programs such as Six Sigma. Dawson and Buchanan (2007) warn against discourse approaches that are considered in isolation, as these accounts cannot uncover the contribution of complex relationships between participants.

MacKay and Chia (2013) demonstrate self-organising between senior executives during an organisational change program which was intended to align the business with critical environmental and market forces. The team relationships conflicted with the continually changing environmental conditions and the unpredictable emergent outcome was the closure of the business. The findings were similar to previous research studies which demonstrated unpredictable outcomes, but not the detail of how the changing interaction between participants contributed to emergent change.

In terms of uncovering how emergence occurs, Hernes and Maitlis (2013) propose a relational ontology where experiences between people grow from other events and experiences. Processual perspectives such as "action nets" are proposed by Czarniawska (2008, p.37) regarding groups of interconnected participants who contribute to emergent change. Czarniawska (2009, p.2) suggests research through action nets attempts to ask, "what is being done?" rather than "who is doing what?" However, this perspective does not sufficiently address the focused context of researching as a practising manager, as it portrays more of a detached view.

Chia (2014, pp.8-10) highlights planned change programs as "owned" by senior managers. However, these initiatives often come to grief because of unpredictable complexity in the relationships between participants and the "unanticipated consequences that ensue". Chia (2014) suggests further research is required to enhance processual accounts as existing studies do not uncover the complexity and contribution of human relations and interaction. He proposes managers should adopt a more benign or "unowned" approach of letting change emerge, whilst remaining flexible and adaptable

> "Practical nous, acquired through having to operate in a constantly changing world that enables practitioners to cope with and respond to the exigencies of rapidly evolving situations they constantly find themselves in" (p.10).

2.3.2 Complexity Thinking and Emergent Change.

Burnes (2005) suggests the ongoing struggle to understand such high failure rates in planned organisational change programs has prompted interest in complexity theories and emergent change. Burnes (2005) cites Weick in proposing change cannot be controlled through planned programs such as Six Sigma.

> "Emergent change consists of ongoing accommodations, adaptations, and alterations that produce fundamental change without a priori intentions to do so" (p.75).

Sveningsson and Alvesson (2003, p.116) support further research into complex perspectives of uncontrollable emergent change which go further than the "becoming" processual approach. They highlight the inadequate number of empirical studies incorporating the reality of every-day practice which reflects emergent change through the complex, social and discursive context of participation.

According to Burnes (2005, p.78), a perspective for understanding change is complex adaptive systems (CAS), where agents behave according to their own rules through self-organising, regardless of any planned initiatives. This perspective reflects the "emergent quality" of self-organising elements, sub-systems or agents (Schneider and Somers 2006, p.354).

Stacey (2011, p.244) uses an example of flying birds, where the adaptive relationship and behaviour between agents produces "flocking". This maximises the benefits of being together to cope with possibly volatile environments without crashing into each other. Stacey (2011, p.245) highlights scientific research into complex adaptive systems being investigated through computer simulations, such as the "genetic algorithm" developed at the Santa Fe Institute. Carlisle and McMillan (2006) suggest an understanding of self-organising through the consideration of people as individual complex adaptive systems, as they continually learn and adapt to their environment.

According to Obolensky (2014, p.59), complex adaptive systems is positioned along a scale from the deterministic certainty of classical physics, through chaos theory towards self-organisation. On this basis, Obolensky (2014, pp.27-28) proposes "complex adaptive leadership" to influence emergent change, by shifting the understanding of organisations from adaptable machines to more fluid organisms. Influencing emergent change is based on leadership which creates an informal hierarchy, flexible teams and open communication to create an environment which maximises the ability to continually adapt.

Schneider and Somers (2006) support the positive influence of leaders in creating this type of adaptable environment. They suggest leaders instil a clear collective belief of the organisation's identity in terms of what it stands for and where it's going, whilst operating in unpredictable environments and cite Albert, Ashforth and Dutton.

> "A clear sense of identity serves as a rudder for navigating difficult waters" (p.357).

Whilst acknowledging the relevance of emergence from self-organising, Stacey (2011) goes beyond complex adaptive systems. His theory rejects leaders creating environments to influence outcomes, as they cannot control the process of changing conversations.

> "They make statements about visions and missions. They make decisions and take actions that affect a great many others. What they cannot do, however, is programme the responses those others will make" (p.370).

According to Stacey (2001), participation is required for organising and the inability of leaders to influence actually creates the possibility for uncontrollable emergent change. This occurs through ongoing micro-processes of interaction between participants.

> "From this perspective, human futures are under perpetual construction through the detail of interaction between human bodies in the living present, namely, complex responsive processes of relating" (p.6).

Organisational change emerges through unpredictable conversations between self-organising participants and therefore outcomes must be unpredictable and uncontrollable. Stacey (2011, p.238) goes on to suggest this lack of a pre-determined destination does not produce anarchic activity. Self-organising constraints are dependent on initial conditions of ongoing interaction which enables, but also constrains emergent change.

Stacey (2011) uses weather systems as an example of the futility of longer-term forecasts. Unpredictable complexity is demonstrated by a butterfly flapping its wings, which has the possibility of creating more extreme, random weather changes in other locations. However, Stacey (2011, p.239) proposes this unpredictability as also self-constrained by initial environmental conditions along with the contribution of many changing variables.

> "There is a pattern to weather behaviour because it is constrained by the structure of the nonlinear relationships generating it".

This is demonstrated by not having snowstorms in the Sahara Desert or heat waves in the Arctic (Stacey, 2011). This stability averts anarchic outcomes, but still allows unpredictable emergent change. Managers need to be aware of initial conditions, such as Six Sigma forecasted targets which can constrain, but also enable interaction. Therefore, in preference to maintaining the status quo, the focus should be promoting conversations whilst accepting outcomes as unpredictable and emergent.

> "Strategies and organisational changes emerge in local interaction understood as conversation. This requires us to re-think what we mean by most organisational activities such as strategising, leading and many more" (p.372).

Stacey (2011, pp.468-475) uses four key questions to summarise how his theory addresses the organisational dynamics of emergent change, as shown in Table 2.1.

Table 2.1. Four Key Questions of Complex Responsive Processes of Relating. (Adapted from Stacey 2011, pp.468-475).

Four Key Questions. **Participation in Organisational Dynamics.**	**A Summary of how the Theory Addresses the Organisational Dynamics of Emergent Change.**
1, How does the theory understand the nature of interaction?	There is no notion of a controllable system, as complex responsive processes are fundamentally conversational in nature, forming and being formed by power relations and ideologically based choices. The analysis focuses at a micro level and concentrates on the paradoxical dynamics of stable instability in which local interaction produces emergent population-wide patterns in relating. These could take novel forms through amplification of diversity and human spontaneity.
2, What view does the theory takes on human action?	Complex responsive processes of relating does not distinguish between individual and group as different levels of analysis and therefore the individual is the singular of interdependent people, while the group is the plural of interdependent people. Individuals and groups form and are formed by each other simultaneously, with the fundamental motivator of human behaviour being the urge to relate. Leadership is no longer simply an individual competence, but a form of relationship. Creativity arises in patterns of relationship in which there is sufficient deviance and subversion.
3, What methodological position does the theory adopt?	The theory seeks to sustain a methodological position in which people are both participants and observers at the same time, which has implications for how the role of the manager is understood. A manager cannot stand outside organisational processes and control, direct, shape, influence, condition or perturb them in an intentional way. The methodology for understanding complex responsive processes is essentially reflexive.
4, How does the theory deal with paradox?	The theory places emphasis on paradox in that the individual and the group are paradoxically formed by and forming each other at the same time. Particularly important is the emphasis placed on the paradox of predictability and unpredictability at the same time. Paradox cannot be resolved or harmonised, only endlessly transformed.

The key questions in Table 2.1 assisted in developing an interpretative framework based on Stacey's (2011) theory of complex responsive processes of relating as a lens for research. The framework allows focusing attention on my participation as a practising manager, which is discussed in the following section.

2.4 Towards an Interpretative Framework.

Developing an interpretative framework based on Stacey's (2011) theory was justified over other processual perspectives as previously discussed, such as action nets (Czarniawska, 2009). My research as a practising manager complements and adds to processual perspectives by uncovering the detail of the micro-processes of organising and relating that go on during an organisational change program. I uncover how emergent change occurs through the changing patterns of relating (Stacey, 2001).

> "Organisational change is change in power relations, is change in the conflicting constraints of relating, is change in communicative interaction, is change in the communicative themes patterning the experience of being together" (p.175).

Stacey's (2011) theory of complex responsive processes of relating is summarised below.

i. Joint accomplishment of the participants is essentially the process of human relating which is simultaneously threefold; conversational, symbolic and power, which are discussed in the following sections.

ii. Relating is responsive because the new patterns signifying organisational change emerge in conversational responses, symbolic gestures and emerging power relations. These aspects of relating form and are simultaneously being formed by one another over time as experience in the moment, or "the living present" (Stacey 2011, p.332).

iii. Relating is complex because it is simultaneously stable and unstable, predictable and unpredictable, controllable and uncontrollable, plannable and unplannable at different levels of interaction. A participating manager cannot control unknown responses or outcomes and should therefore focus attention to what is happening rather than what should be happening.

Stacey's (2011) theory provides a lens for my research by focusing on what managers are already doing, in terms of jointly accomplishing tasks during self-organising. Accomplishing tasks occur through changing patterns of symbolic, power and conversational relating actually constitute a changing organisation. This provides a basis for my interpretative framework, which focuses attention on my experience amongst other participants, as outlined in section 2.4.4.

2.4.1 Symbolic Relating.

Stacey (2011) leans on contributions from Mead (1934) and Elias (1939) regarding relational psychology, which relates to conversations of gestures rather than a cybernetic sender-receiver model of language from autonomous minds. An example is a dog barking or snarling, where these symbolic gestures can be interpreted as a meaning in the social act as a whole, such as submission or domination.

Ongoing iterations of interaction alter the patterns of these relationships, which contributes to emergent change through the medium of symbols. Stacey (2011) suggests symbols are continually transformed during interaction, which provides a form of shared belief that is necessary for co-operation and joint social action. These are made up of narrative themes from significant proto symbols of body rhythms, feelings and reified symbols, such as artefacts organised as propositional themes.

Hatch (1997) critiques any notion of symbolic management, where culture can be influenced to gain team consensus towards a shared belief of achieving forecasted outcomes. Hatch (1997) suggests that senior leaders continue to publicise the perception of their influence in achieving successful change. However, this amounts to change which has already occurred, rather than highlighting any detail of how to influence shared beliefs.

> "[A] Barrage of influence provided by other members of the culture such as bosses" (p.219).

Stacey (2011) refutes the possibility that symbolic management can intentionally influence outcomes as responses are unknown and unpredictable, regardless of hierarchical status. On this basis, outcomes will always happen but must also be unknown as the future is continually emerging from unpredictable interaction.

2.4.2 Power Relating.

The ability of powerful leaders to influence outcomes through team consensus labelled as culture is described by Martin (1992, p.46) as an "integration perspective". This became the dominant view of organisational change in the United States of America when Six Sigma grew in popularity. QCG (2003) argue that the integration perspective can be achieved through Six Sigma leaders influencing a collective team belief in achieving forecasted targets.

Parker (2000, p.25) critiques this positivist proposition of hierarchical power influencing "culture". This aligns with Stacey's (2011) view of power being fluid, as influence shifts within groups. The notion of hierarchical, influential and powerful leaders is also refuted by Wiggins and Hunter (2016, p.84), who suggest that power is a "subtle and mercurial phenomenon", shifting from moment to moment, "in the push and pull of conversation".

Stacey (2011) proposes team interactions are a paradox of stability and instability, where the opportunity for emergent change becomes evident in changing patterns of diverse relating, regardless of hierarchical power or status.

> "Change in individuals and groups means change in the themes organising the experience of being together and hence the change in power relations" (p.372).

Stacey (2011, p.480) suggests that power relations become evident regarding "what is in and what is out", in terms of group inclusion or exclusion, which may or may not facilitate possibilities for ongoing interaction. Inclusion and exclusion generate different types of conversation, such as legitimate themes where people feel able to talk openly in formal environments, or contrasting shadow themes which take the form of gossip in informal settings.

Wiggins and Hunter (2016, p.72) describe legitimate themes as "front stage" and shadow themes as "backstage". They refute a conscious choice of whether to participate because of the natural human condition to naturally build coalitions, which subsequently contributes to the fluid nature of power between participants.

2.4.3 Conversational Relating.

Chia (2014), MacKay and Chia (2013) and Nayak (2008) highlight the significance of relationships to unpredictable emergent change. However, Stacey (2011) goes further than these processual views through focusing on the detail of the micro-processes of changing patterns of conversational relating, which constitutes a changing organisation.

> "Organisations are the ongoing patterning of conversations, so that changes in conversations are changes in organisations" (p.365).

Stacey (2011, pp.403-411) provides an alternative way of thinking about change through ongoing iterations of narrative themes of conversation. Change emerges from pairings of legitimate / shadow, formal / informal and conscious / unconscious narrative themes which I have adapted and summarised in Table 2.2.

Stacey (2011) emphasises the significance of the tension between shadow and legitimate themes of conversation. The changing themes may promote or block free-flowing conversation which can create possibilities for emergent change. For example, shadow conversations may take place informally between trusted colleagues, as those participants may not feel secure enough to express the same views in formally organised meetings.

Formal themes are based on the identified terms of the organisations purpose, which contrasts with the informal themes of unidentified personal and social relationships. In conjunction, known themes of organising when participants are together are conscious narratives, which contrasts with unknown unconscious themes as outlined in Table 2.2.

Table 2.2. Narrative Themes of Conversation.

(Adapted from Stacey 2011, pp.403-411).

Formal	Identified in terms of an organisations purpose, the tasks and the individuals assigned roles carrying out the tasks.	Informal	Personal and social relationships not formally defined.
Conscious	Known themes of organising experience of being together.	Unconscious	Unknown themes of organising experience of being together.
Legitimate	Themes that organise what people can talk openly and freely about. Conversation that is readily engaged in, even if the individuals do not know each other well.	Shadow	Shadow themes organise what people do not feel able to discuss freely and openly. The kind of conversations only engaged in informally, in very small groups, with others that are known and trusted.

In terms of interpreting symbolic, power and conversational relating, Stacey and Griffin (2005) provide examples of research where access to meaning is through group interaction and discussion. This consists of groups discussing similar fields in the context of their study, which they have conducted by joining an organisation for the purposes of research. However, this approach does not reflect my normal everyday participation and collaboration with colleagues as a practising manager.

Directly experiencing the changing patterns of relating provided a route for an interpretative framework, as discussed in the following section. My particular research allowed full involvement as a practising manager, providing an ability to focus attention on my experience amongst others. This approach adds to the proposal from Stacey (2000) of conducting research as an enquiring participant.

> "The capacity for emergent new ways of talking is fundamental in organisational creativity. If this is so, then it is a matter of considerable strategic importance to pay attention to the dynamics of ordinary conversation, particularly those in the shadow" (p.393).

2.4.4 Interpretation through Focusing Attention.

My research presents a flexible and adaptable approach to interpret what is already happening, rather than what should be happening to achieve forecasted results through the Six Sigma DMAIC methodology. Stacey (2011) suggests focusing attention on what managers already do, so Six Sigma is understood merely as a gesture or proposition, not a means of intended control. The main elements of focusing attention through my interpretative framework are listed below and followed by relevant summaries adapted from Stacey (2011).

- Focusing attention on the quality of participation.
- Focusing attention on the quality of conversational life.
- Focusing attention on the quality of holding anxiety.
- Focusing attention on the quality of diversity.
- Focusing attention on unpredictability and paradox.

Focusing Attention on the Quality of Participation.

Stacey (2011, p.477) suggests a participative perspective, where managers cannot take an external view of choosing or influencing an outcome as espoused in Six Sigma. Leaders cannot influence or program the response of others and therefore any small changes in patterns of relating may escalate unpredictably into unknown emergent change.

Therefore, becoming aware of the quality of participation amongst others is through gathering empirical material in the moment of my interaction with others. This applies to formal Six Sigma teams but also informal participation with others as part of my everyday organising. Focusing my attention on the quality of participation provides insights into the contribution of the changing patterns of relating to emergent change.

Focusing Attention on the Quality of Conversational Life.

Stacey (2011, p.478) proposes that relationships between people are organised in conversations that form and are being formed by the power relations between them. Through the experience of conversational relating, intention emerges, which in turn may promote a diverse response and this self-organising provides possibilities for emergent change.

The quality of conversational life reflects my participation in becoming aware of rhetorical ploys or political processes that block free-flowing conversation, which may restrict the possibilities for emergent change. Hence, I focus attention on becoming sensitive to interaction which may enable further conversation or block it by reinforcing the formal status-quo. Focusing attention on free-flowing conversations uncovers

exchanges that encourage further iterations, which in turn creates the possibility for emergent change.

Focusing Attention on the Quality of Holding Anxiety.

Stacey (2011) proposes that the initial conditions of stringent measures and targets in planned change programs can be very unsettling and make people feel over-anxious. This can prevent diverse interaction which is required for emergent change by stimulating further iterations of conversation.

> "Change in organisations is also, at the same time, deeply personal change for individual members. Such shifts unsettle the very way in which people experience themselves" (p.479).

Stacey (2011) suggests the practice of holding anxiety can be achieved by not imposing decisions when under stress. This approach allows the continuation of further interaction and the possibility of self-organising and emergence. This contrasts with my Six Sigma training where managers were advised to take rational decisions based on data to eliminate "gut feeling" (Antony *et al* 2004, p.10).

I focus attention on becoming aware of the causes of anxiety such as expectations from senior personnel for managers to achieve forecasted, quantitative Six Sigma targets. A greater awareness can enable a reassured approach of allowing continued participation and letting change unfold (Chia, 2014).

Focusing Attention on the Quality of Diversity.

Six Sigma improvement initiatives attempt to influence consensus in teams through accountability, measurement and control, which reaffirms shared goals of achieving intended outcomes. Stacey (2011, p.480) proposes that too much conformance prevents new forms of behaviour whilst paradoxically, if team members have nothing in common at all, then joint action is impossible. According to Stacey (2011), deviance and eccentricity are characteristics that contributes to emergent change, particularly through the tension between legitimate and shadow themes of conversation.

The intention is developing a greater sensitivity to group dynamics of legitimate and shadow themes of conversation to try to make sense of whether participants are socially included or excluded. These changing patterns of relating may impact on supporting the status quo, or creating the possibility for emergent change. Therefore, I focus attention on the diverse opinions of a range of participants and uncover conditions for further interaction and possibilities for emergent change.

Focusing Attention on Unpredictability and Paradox.

Stacey (2011, p.481) describes unpredictability as one of the most radical aspects of the theory and points out the futility of forecasting outcomes in planned change programs. Six Sigma programs promote the achievement of forecasted targets, which in my experience can lead to feelings of incompetence when unpredictable outcomes occur. Acknowledging unknown outcomes and a lack of control can be beneficial for managers in terms of reducing anxiety, as encouraging continued interaction can create possibilities for unpredictable, emergent change.

The theory places an emphasis on continuing to act into an unknown future as this approach is morally and ethically the preferred option in comparison to no action, although both courses result in unpredictable outcomes. Stacey (2000, p.411) suggests taking any form of action is preferable as it creates possibilities for further conversation, which is morally more acceptable than absolving responsibility.

As a practising manager, the intention is developing a greater awareness in terms of feeling in control and out of control at the same time. Realising these feelings may provide a reassurance to continue participation rather than feeling incapacitated to the point of taking no action. This approach promotes ongoing participation in fieldwork, by becoming aware of the paradox of organisational life as listed below.

i. Organising can be intentional and emergent at the same time.
ii. Conversational patterns of relating may enable and constrain.
iii. New conversational themes and power relations emerge while older ones are destroyed.
iv. The experience of relating in conversation are both stable and unstable at the same time. They are in control and not in control at the same time.
v. The emergence of new patterns of relating are predictable and unpredictable at the same time.
vi. Complex responsive processes organise both conformity and deviance at the same time.

Based on my justification of using Stacey's (2011) theoretical lens for my exploration into Six Sigma initiatives, the following chapter outlines my original, robust research methodology.

Chapter 3. Research Methodology.

According to Ybema *et al* (2009), many organisational studies ignore the everyday experience of organising. Similarly, Alvesson, cited in Ybema *et al* (2009, p.158) suggests it is rare for researchers to study the "lived realities" of their own organisations. Booth and Bird (2011, p.30) provided further focus for my research by asking,

> "What does the researcher want to learn?"

My struggle to understand why outcomes were unpredictable inspired me to research a processual account of emergent organisational change and management practice through the lens of Stacey's (2011) theory of complex responsive processes of relating. Whilst I acknowledge limitations such as subjectivity and bias, I am transparent in outlining a rigorous methodology based on conducting research as an involved manager amongst others. Gioia *et al* (2012, p.16) argue that it is possible to gain a deeper understanding of organisational dynamics through experiencing relationships between participants.

I adopted at-home ethnography (Alvesson, 2003) to operationalise Stacey's (2011) theory in order to enhance an approach of researching as an enquiring participant. I conducted first-person research into my every-day organising as a practising manager, whilst combining second-person research through collaboration with other participants (Marshall, 2004). Such an approach can be thought of as living life as enquiry (Marshall, 1999), which facilitates learning from my own experience of organising. In addition, I learn from my lived experience (Introna, 1997) amongst the wider context of colleagues, family and friends.

3.1 Doing Research as an Enquiring Participant.

Weick *et al* (2005) and Colville *et al* (2012) inspired me to uncover insights from my everyday organising with others as a practising manager by asking:

> "What's the story?" (p.5).

In order to uncover insights from research, Stacey (2011) proposes paying attention to the changing patterns of relating as an enquiring participant.

> "The method is that of taking one's own experience seriously with the aim of reflexively exploring the complex responsive processes of human relating" (p.488).

Stacey (2011) offers a set of theoretical and ontological propositions based on becoming an enquiring participant.

> "Taking one's experience seriously, through articulating the narrative themes organising the experience of being together, is an essentially reflexive activity and in its fullest sense this is a simultaneously individual and social process, including the social patterns that are much wider than our own immediate interaction" (p.488).

I developed my methodological approach by drawing on at-home ethnography (Alvesson, 2003) and utilising the hermeneutic circle (Introna, 1997). The emphasis of my research methodology is learning from my lived experience as a practising manager, during my normal every-day organising.

3.2 Lived Experience.

Weick (1979, p.88) suggests:

> "The word organisation is a noun and it is also a myth. If you look for an organisation, you won't find it. What you will find is that there are events, linked together, that transpire within concrete walls and those sequences, their pathways and their timing are the forms we erroneously make into substances when we talk about organisations".

Learning from my lived experience as a practising manager reflects research in my normal social location or "habitus" as proposed by Johnson and Duberley (2003, p.1289). Smircich (1983) supports researching discourse through participation in a similar manner to Clandinin and Connelly (2000), who argue:

> "For us, narrative is the best way of representing and understanding experience. Experience is what we study and we study it narratively because narrative thinking is a key form of experience and a key way of writing and thinking about it" (p.18).

Antonacopoulou and Tsoukas (2002) refer to Bateson, Polanyi and Wenger in confirming no separation between thinking, acting, theory and practice. Reflexive research through my lived experience complements this understanding through my normal organising as a practising manager.

> "Far from being separate, thinking and acting, theory and practice are mutually constituted" (p.858).

The benefit of researching as a practising manager is proposed by Czarniawska (2004, p.785), who describes this approach as, "undoubtedly superior to all other types". She cites researchers who became part of an organisation in order investigate a particular field, such as Melville Dalton who worked as a manager, John Van Maanen as a police trainee and Robin Leidner at McDonalds. My position as an involved manager enhances this immersive approach, as these researchers could only attempt to act as a member, because

their primary reason for being there was studying others. My primary reason for participating in the Six Sigma change initiatives is my natural organising as a practising manager, rather than attempting to take a position as an outside researcher.

Therefore, my access is not directed or controlled for the purposes of research, but through my lived experience of being an accepted and trusted colleague. This is a strength of the study, but I am also mindful of how I conduct research during my management practice. Mangham (1979) argues,

> "Few people are aware of themselves. Many are out of touch with who and what they are. The self is taken for granted or worse still, assumed to be unchangeable and beyond development: that's the sort of person I am" (p.152).

My focus was developing my thinking from trying to control Six Sigma outcomes, towards allowing research to unfold. Learning from lived experience reflects my personal becoming as proposed by Chia and Holt (2009).

> "The coming-into-being of the person is part and parcel of the process of coming-into-being of the world" (p.134).

This highlights the inherent personal transition from my past experience of viewing the world as a detached, rational manager, into being sensitive to local interactions that contribute to emergent change. Learning and gaining insights from my lived experience was facilitated by using the hermeneutic circle (Introna, 1997).

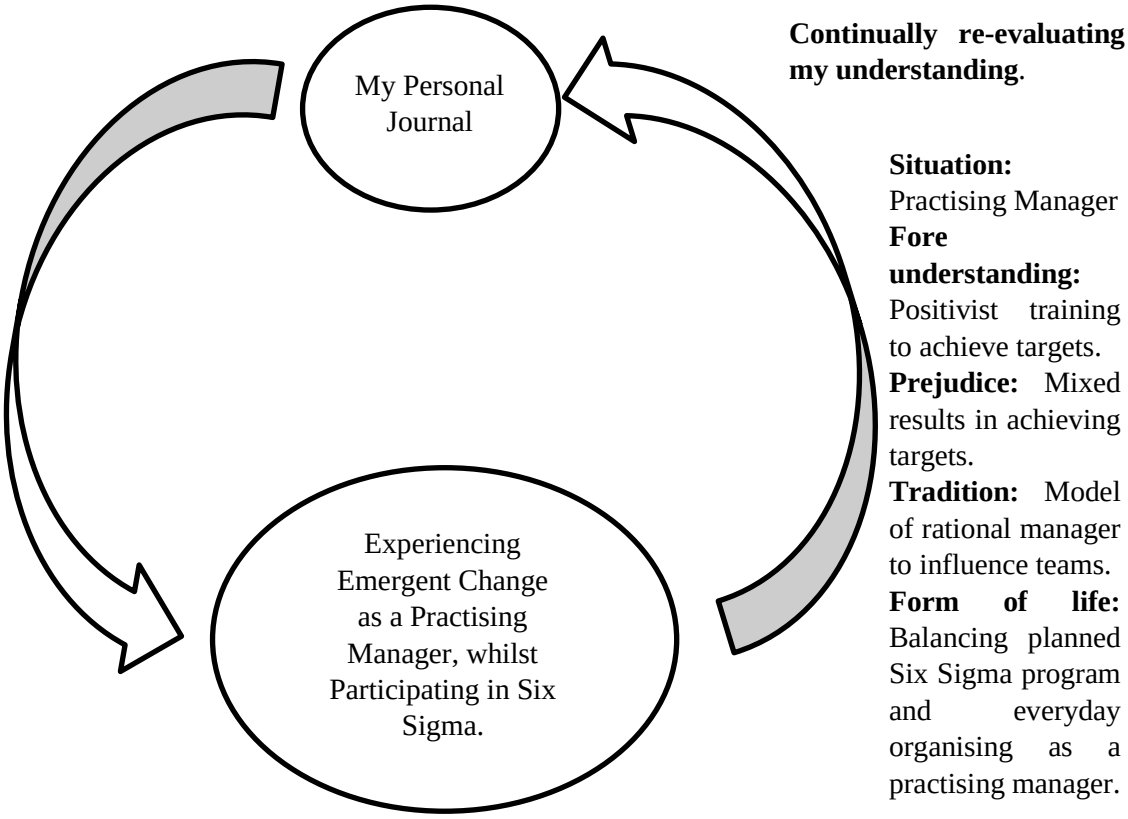
3.2.1 The Hermeneutic Circle.

The hermeneutic circle facilitates understanding through continually re-evaluating the meanings between the context of experience and reflexive iterations (Introna 1997, p.65). New understanding and the generation of knowledge arise as my original point of view is continually readjusted through reflexive iterations, as illustrated in Figure 3.1.

Stacey's (2011) approach to research as an enquiring participant is enhanced by Introna (1997, p.181) by providing a "hermeneutic bridge" to facilitate an understanding of my lived experience. Becoming aware of my fore-understanding and prejudice established the initial meaning of the text from my empirical material, which was revisited and re-evaluated.

Being open to developing an understanding through reflexive iterations of the hermeneutic circle invoked considerable personal uncertainty and anxiety. Allowing time and space to reflect on emergent change through the changing patterns of relating required a "leap of faith" (Introna 1997, p.189), as I continued to participate without being able to predict the outcome.

Figure 3.1. The Hermeneutic Circle. (Adapted from Introna 1997, p.65).



I discuss research through qualitative research in the next section. Narrowing this broad scope though ethnographic approaches culminates with my chosen research methodology in section 3.4.

3.3 Qualitative Research.

Silverman (2011) highlights the validity of qualitative research for investigating as a practising manager.

> "Qualitative research is often most effective when it studies how people behave in everyday situations" (p.34).

As a practising manager in Six Sigma teams, qualitative research aims to uncover why participants, "do the things they do in various social contexts" (Gill and Johnson 2010, p.148). Silverman (2011) argues that the main strength of qualitative research is the ability to study social phenomena such as group relationships, which are unavailable by quantitative means. A quantitative approach could not uncover the ongoing process of

changing interaction amongst participants. Quantitative studies in the context of my particular research could only demonstrate measurable outputs from Six Sigma initiatives and how they compare against the forecasted targets.

Weick *et al* (2005) recommends starting from a broad qualitative approach and focusing towards understanding organising through communication, which provides a context for sense-making. Different forms of qualitative research require certain forms of data collection in a particular way (Gill and Johnson, 2010). I start by discussing the broad ethnographic approach, which narrows towards my particular context of conducting research in my normal environment as a practising manager. My chosen research methodology is a focused approach of at-home ethnography (Alvesson, 2003), which is outlined in section 3.4.

3.3.1 Ethnography.

Ethnographic accounts attempt to inform the reader in terms of "being there" (Meyer 1982, p.516). Moeran (2005), highlights a traditional form of ethnography through observation in the field. In contrast, Stacey (2000, p.405) argues that his theory "makes a firm move away from the notion of a manager as objective observer". Similarly, Calori (2002, p.879) suggests the researcher should be fully involved in the same time and space as the researched.

Gill and Johnson (2010) also propose conducting ethnographic research whilst being in the field, which Crotty (1998) describes as providing a source of rich socially based studies in a range of settings. Prominent examples of ethnographic research in the field include Sharpe (2005) and Van Maanen (1979), where researchers gain access and seek to become integrated in a group in their normal environment.

3.3.1.1 Auto-Ethnography.

Hatch (2002) describes researcher participation from an embedded point of view as "interiorisation".

> "Looking at processes from inside their dynamics through a combination of personal engagement and reflection" (p.873).

Johannsson's study of entrepreneurship (cited in Calori 2002, p.879) highlights researcher participation to "walk the path together", in an attempt to become an accepted member. For example, a researcher becomes a practitioner or professional researchers and managers co-operate as co-authors. Stacey's (2011) theory advocates research through paying attention during interaction with others as a priority over an auto-biographical account.

> "It is also an indication of how leader - managers might conceive of themselves as researchers using this method to explore who they are and what are they doing together as well as who they wish to become and what they would like to do together. The approach is not simply research because at the same time it is exploration of the fundamental questions of strategy; the strategic exploration of identity" (p.489).

Bryman and Bell (2011, p.707) describe auto-ethnography as an auto-biographical form of research as it involves the writing of a "highly personalised text". This approach does not completely correspond to Stacey's (2011) theory as he suggests a more collaborative approach as an enquiring participant amongst others.

As a practising manager rather than a researcher put in place to investigate, I am already collaborating with others in Six Sigma teams and every-day organising. Therefore, I am not the focal point of a reflexive auto-biography and taking a position of paying attention to the experience of others is supported by Weick (2002).

> "In the name of reflexivity, many of us tend to be more interested in our own practices than in those of any-body else. That is not reflexivity. That is non-reflexive narcissism. Surely, we can do better than that" (p.898).

At-home ethnography (Alvesson, 2003) prioritises the experience of all participants rather than putting oneself at the centre of an auto-ethnographic or highly personalised auto-biographical study. This specific ethnographic approach represents my research as a practising manager who is already involved in collaboration with known colleagues, which is outlined in the next section.

3.4 At-home Ethnography.

Alvesson (2003) proposes at-home ethnography when the researcher is already an active participant with natural access, whilst being on more or less equal terms with other participants. Jarventie-Thesleff *et al* (2016, p.237) recommends studying in "one's own setting", which contrasts with an outside researcher entering a new environment.

Based on his research experience, Vickers (2019) suggests at-home ethnography as the preferred methodology for practising managers undertaking academic studies. This methodology aligns with my day-to-day practice, where my participation is not controlled or manipulated for the purposes of research.

> "This is ideal for managers conducting research projects during their academic studies as it makes a virtue out of their access and intimate knowledge" (p.11).

According to Vickers (2019, p.12), insider knowledge is required to uncover valuable insights, but must also be balanced by becoming distant enough to "problematise" research. To achieve this aim, he recommends dedicated and regular gathering of empirical material without excessive planning, in order to ensure a feeling of distance. This approach allows an open mind in the moment of recording, which aids unbiased recording and reflexive interpretation regarding the experience of all participants.

Antonacopoulou and Tsoukas (2002, pp.857-859) discuss the importance of research which provides insights into experience that we are not ordinarily aware. In order to gain insights into emergent, ongoing change, the researcher needs to adopt a reflexive approach.

> "We need, in other words, to reflect on our reflections; we need to be reflexive. Reflexivity is the turning of thought back on itself and is an intrinsic trait of human beings".

Developing my self-awareness and determination to continue research without knowing the outcome exemplified my feeling of simultaneously feeling 'in control' and 'out of control' (Stacey, 2011). Feeling in control reflected my confidence to conduct research in a known environment amongst trusted colleagues. At the same time, I felt anxious as I was unable to predict whether the gathered empirical material would develop into a significant contribution towards emergent organisational change and management practice.

On reflection, an example of feeling in control was demonstrated in the Six Sigma initiatives, which emanated from having a high degree of trust with known colleagues. This meant I could gather rich, informal and sometimes sensitive conversations during my everyday organising which may not have been shared with an outside researcher. For example, there could have been potential harmful consequences for participants if sensitive opinions were shared formally. Therefore, trusting relationships with colleagues which had built up over many years was a significant factor in gaining rich insights which would not be accessible to an outside researcher.

However, in the moment of interaction, I felt a lack of control as to whether the conversations would develop into something significant or interesting enough to record. Although I ensured total trust and discretion, I was also anxious about the possibility of sensitive conversations unintentionally coming to the attention of senior personnel and the associated potential for harmful circumstances concerning job security.

I discussed the requirement for confidentiality and possible consequences if this did not occur with my colleagues. I clarified that they could fully trust me, both formally through their completed consent forms, but also informally through our conversations. There was a shared understanding and confidence between us that they could continue to impart their honest feelings, thoughts and conversations. Acknowledging my anxiety due to a lack of control also provided a heightened focus for what I could accomplish, which was continuing to confidentially gather empirical material as part of my normal organising.

3.4.1 An Involved Manager.

Sandberg and Alvesson (2011) argue that research into organisational change often neglects the deeper insights into how unpredictable outcomes emerge from the perspective of the participants. The intention of my research as an involved manager (Introna, 1997) satisfies the request from Weick et al (2005).

> "Build future studies that can strengthen the sense-making perspective" (p.409).

Wiggins and Hunter (2016, p.19) provide practical summaries of emergent change through ethnographic research. However, the detail of how the changing patterns of relating develops between participants and the resulting contribution to emergent change is not revealed. Sandberg and Alvesson (2011) argue that further research should not rely on assumptions from existing literature, but should seek to challenge it, through the actual experience of being involved in uncovering the detail of how change emerges.

Introna (1997, p.12) leans on the work of Heidegger in advocating a shift from epistemology to ontology. Instead of the premise of looking for a truth, I gain insights from what I instinctively do as an involved manager. This is through Heidegger's concept of "dasein", which translates to "being there". Becoming reflective during participation allowed me to become increasingly aware of my involvement in the world as well as being a practising manager.

My perspective as an involved manager contrasts with the Six Sigma view of a rational manager making data driven decisions to influence teams towards achieving forecasted targets. These two ontological views are shown in Table 3.1 (Introna 1997, p.173), which I have adapted to reflect the context of my research.

An involved manager acknowledges unexpected, uncontrollable events and therefore acts on the basis of trying to cope in getting the job done. This contrasts with attempting to achieve forecasted outcomes through making rational decisions and influencing Six Sigma teams during planned organisational change programs.

Gaining insights into emergent change by researching changing interaction provides a link to normal organising as an involved manager (Introna, 1997). Possibilities for emergent change open up as the next logical steps during self-organising, as I already participate through interaction as an involved manager. Introna (1997) argues that language is not concerned with an accurate selection of words, as organising is conducted by managers through natural and instinctive iterations of conversation.

> "Language in-the-world is the essence of management" (p.110).

Table 3.1 The Two Ontological Views of the Manager.

(Adapted from Introna 1997, p.173).

	An Involved Manufacturing Manager participating in Six Sigma.	**A Rational Manufacturing Manager controlling Six Sigma.**
Mode of being	Available	Occurrent
Comportment	Getting the job done	Effectiveness and efficiency
Purpose of information	Sense (re) making and alliance building	Decision making and problem solving
Action imperatives	Local logic	Plan and control
	Doing – thinking	Thinking then doing
	Opportunistic	Calculated and reasoned
Knowledge resource	Tacit knowing	Representations
Key assumptions	Thrownness	Autonomy
	Networks	Linearity

My collaboration included a wider range of personnel than solely interacting with Six Sigma team members. For example, I interacted with local managers who were not always participating in the same teams as me, but also the wider context of being amongst my family and friends. Therefore, my approach to research through at-home ethnography also took the form of living life as enquiry (Marshall, 1999).

3.4.2 Living Life as Enquiry.

Marshall (1999, p.157) argues that research is, "partly a personal process" and therefore recommends a process of living life as enquiry. According to Marshall (2011, p.250) researchers should take an attitude of everyday enquiry to "travel unchartered territory". This approach reflected my feelings that I could not separate conversations, regardless of being inside or outside work. As a consequence, I recorded my experience outside of my Six Sigma teams with a wider circle of colleagues, but also family and friends.

Marshall (2004) proposes a combination first and second-person research which aligns with my study as an involved manager amongst colleagues. According to Marshall (2004, p.306), first-person research is an enquiring attitude to one's own life during everyday activities, which allows "understanding and competence in practice". Second-person research reflects the context of paying attention to others during participation. In order to become aware of my own interaction and that of others, I contemplated my arcs of attention as suggested by Marshall (cited in Reason and Bradbury 2001).

3.4.2.1 Arcs of Attention.

Marshall (cited in Reason and Bradbury 2001, p.434) argues that it is important to enhance the reflexive process by paying attention to, "inner and outer arcs of attention". Becoming aware of my inner arcs of attention required being mindful and attentive when I interacted, by making sense of conversations through a reflexive approach. At the same time, I contemplated outer arcs of attention by reaching outside of myself by deliberately engaging with others through questioning, in order to gain their opinions.

Ledwith and Springett (2010) argue that both inner and outer arcs of attention provide much deeper insights through an ability to, "reflect on our reflections" (p.215). This understanding results from critical reflexivity, which may be missed if the known environment is taken as the accepted norm by an inside researcher.

> "This inner criticality is in a symbiotic relationship with outer perceptions, continually questioning and exploring meanings, possibilities and purpose in relation to life experience" (p.216).

According to Sjostedt-Landen (2011, p.537), reflection is a process of identification which includes the researcher. Weick (2002) proposes a reflexive approach when conducting research, which assisted in uncovering insights from my involvement.

> "Reflexivity is about turning back on oneself. It is about seeing oneself in the data" (p.894).

Becoming aware of my inner and outer arcs of attention does not mean I attempted to control interaction. I gained clarity from my own perspective, whilst also ensuring I did justice to what was going on with participants around me. I continued to record in my personal journal without knowing the outcome. Contemplation through my inner arcs of attention contributed to a growing confidence that the accumulated empirical material would provide rich insights into my experience, as proposed by Ledwith and Springett (2010).

> "Practical tools for aiding the inner process of reflexivity include the practice of journal keeping. Reflecting on a critical incident, trying to make sense of an issue or an observation in practice, starts with the skill of capturing the essence of it, in story, or diagram or drawing" (p.216).

This reflexive approach was instrumental in recognising my own bias and learning to develop my management outlook and practice. For example, I came to recognise that I had been complicit in shadow conversations which contributed to undermining Six Sigma initiatives. This insight allowed me to be mindful of the impact of such interaction.

Developing an awareness of my outer arcs of attention allowed note taking through a different perspective of "looking outwards" (Marshall, cited in Reason and Bradbury 2001, p.435), in order to gain opinions and feelings from other participants. This ensured I did not drift into an auto-biographical account, as I engaged in a collaborative approach by questioning other participants during every-day organising.

Ledwith and Springett (2010) suggest this approach is easier said than done, but a determination to record the actual and honest feelings of other managers enabled valuable interpretations and insights. I posed questions to others regarding their experience of the formal implementation of Six Sigma initiatives and the benefit of this approach was shown by strong opinions and passionate responses throughout the research.

An example was interaction with a local manager (Briony, chapter six, section 7.2) which uncovered real frustration when she described the impact of participation in the national Six Sigma program as "relentless". These insightful responses through shadow conversations provided a contrast with more stifled interaction when I participated in formal Six Sigma meetings.

Incorporating both aspects of inner and outer arcs of attention provided a balance to ensure I was aware of my own participation whilst also averting any leaning towards an auto-biographical perspective. Gathering and managing empirical material included my own perspective, but also collaboration with others, as discussed in the following section.

3.5 Gathering and Managing Empirical Material.

Czarniawska (2004, p.774) propose that outcomes from research in the field is like constructing a story, where "the ending chooses the beginning". This perspective allowed an understanding that gathering empirical material could only become meaningful when the process of events became the past. I could not have predicted the increasing scale of the empirical material, but recording almost every day became a way of life and my personal journal amounted to over 753,000 words. The use of inner and outer arcs of attention and real-time reflexivity allowed a pragmatic view of choosing what to record, which became increasingly natural as the research progressed.

The sheer amount of empirical material to interpret meant becoming mindful that I needed to balance a reflexive perspective with a pragmatic approach of rationalisation. This understanding allowed a manageable amount of empirical material to interpret, but enough depth to illuminate insights into emergent change and management practice.

According to Czarniawska (2008), interpreting empirical material as a participant can provide much deeper insights into emergent change compared to an outside perspective. She provides a comparison with a theatrical play, where the audience may appreciate a list of characters, but gains understanding through the performance by the actors, who share an unfolding story. Research as an involved manager allowed an inside perspective of illuminating how change unpredictably emerged through changing interaction. Reflexive interpretation from my empirical material provided deeper insights compared to a more technical description from an outside researcher.

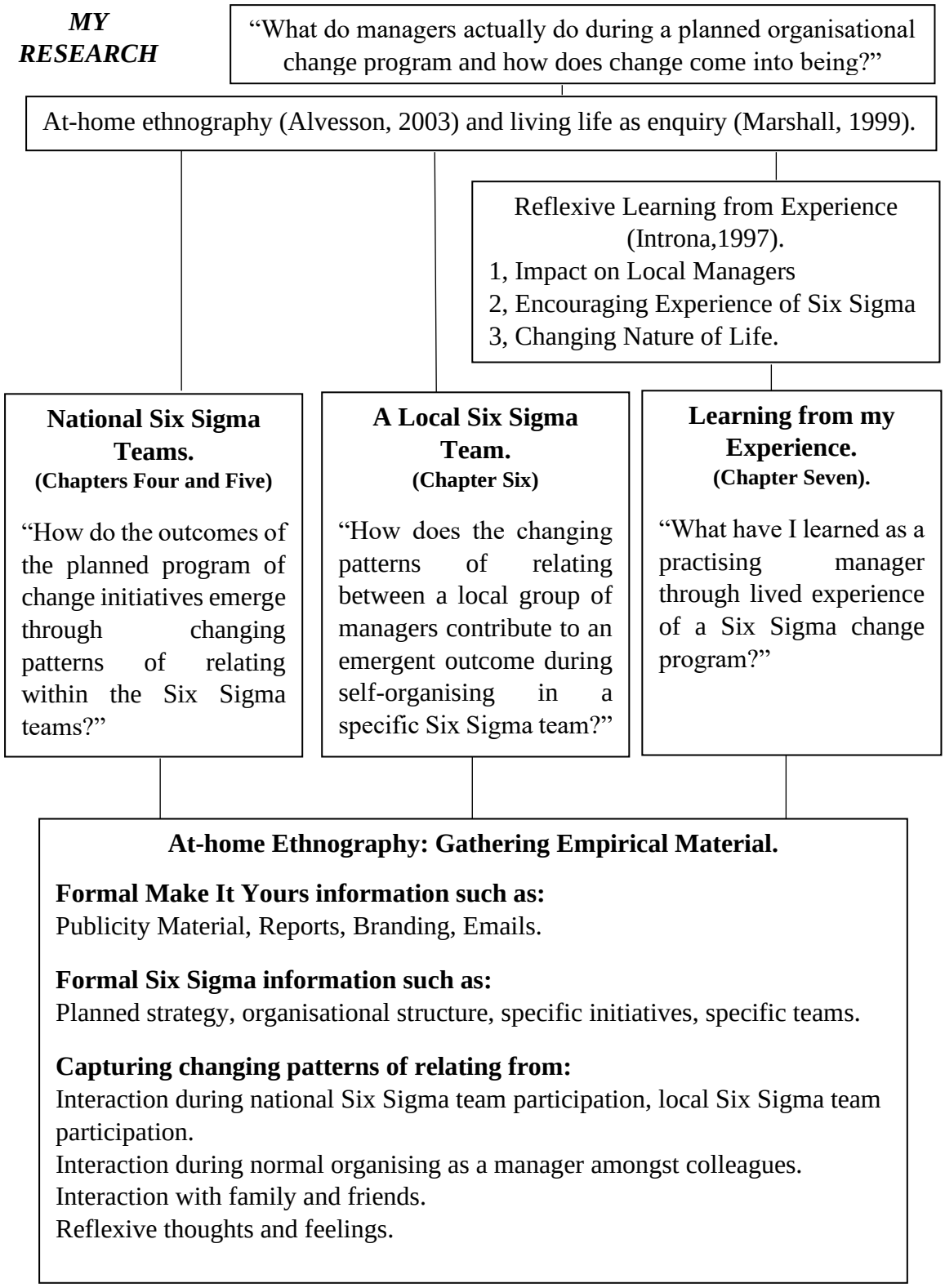
Czarniawska (2008) proposes that meanings can be uncovered from field notes which can provide the foundation for an interesting and useful story.

> "I can report what I do to turn my fragmentary observations into a story" (p.33).

An example from my research was interpreting my experience of participating in the transport initiative, as outlined in chapter six. A formal, technical description would outline a Six Sigma team conducting the rational analysis of financial tenders, which culminated with choosing a new transport supplier based on data. However, detailed interpretation from my lived experience illuminates an intriguing story of changing interaction during management practice, which unfolded between participants. Changing patterns of relating continued up until the last meeting, with a transport supplier (TS2) unpredictably emerging from the process.

Figure 4.4 represents an overview of my at-home ethnographic research methodology (Alvesson, 2003), which incorporates living life as enquiry (Marshall, 1999). The illustration starts with my overall research question and methodology. The focused research questions are paired with the relevant Six Sigma initiatives and the corresponding empirical chapters. A broad range of empirical material was gathered, such as formal reports and emails, but the core of the research was based on regular recording in my personal journal, which is outlined in the following section.

Figure 3.2. Research through At-home Ethnography and Living Life as Enquiry.
Adapted from Alvesson (2003) and Marshall (1999).



3.5.1 Personal Journal.

I utilised a personal journal to record interaction in the moment (Hatch, 1997). The original hand-written field notes were subsequently formatted electronically into relevant documents which also included associated information such as reports and emails. Although I would never claim my personal journal reflected a verbatim copy of conversations, my proficiency in accurate recording was partly due to many years of naturally taking notes as a practising manager.

My normal practice of recording minutes included daily production meetings, formal Six Sigma teams and also informal notes with colleagues on the shop-floor, which stood me in good stead for using a personal journal. According to Ybema *et al*, (2009), gathering empirical material through note taking is a valid approach for facilitating interpretation.

> "Note taking can be the cornerstone of the entire project" (p.159).

I abandoned attempts at audio recording as the process felt more manufactured for the particular purpose of research, rather than going about my normal organising. This approach disturbed the informal atmosphere and led to more considered responses which were similar to an organised interview. The real, natural, dynamic conversations in the moment were lost to more formal, staged responses as participants realised the subsequent conversations were undertaken for the purposes of research. The contrast with taking hand written notes is difficult to describe, but 'off the cuff' remarks and passionate opinions in shadow conversations were captured more effectively in the moment, which felt more authentic and honest.

The ability to quickly and unobtrusively take notes in the moment had an advantage over interviews or focus groups by allowing adequate listening across a wide range of environments, from formal Six Sigma meetings to informal get-togethers. I came to realise many natural conversations occur randomly, which I had taken for granted prior to the research, such as stopping and talking when I was about to pass someone, or making a coffee. Audio-recording was impractical in these settings as it interrupted the natural flow of conversations, so note-taking and listening proved to be exceptionally useful.

I always carried a notepad and pen as part of my normal role, which enabled recording of conversations in the moment and this became my preferred method. I learned that managers felt comfortable to converse in their natural setting, which was proven with open and honest conversations. Another advantage of note taking for my particular research was the ability to record and clarify interactions on the shop floor, where the ambient noise of machinery meant audio recordings were adversely affected.

A useful addition to reflecting in the moment was using quick notations or personal codes to highlight the perceived significance of conversational, symbolic and power relating (Stacey, 2011). This was particularly useful for ensuring accuracy when converting notes into an electronic format, which in turn enabled a greater depth of reflexive interpretation

after the event. Examples include doodling, such as smiley or unhappy emoji's, numbers of asterisks or arrows for the extent of my feelings and underlining for the degree of significance. Other codes came naturally like drawing a shape around particularly interesting interaction and speech marks showing exact quotations.

One of the most satisfying aspects of the research was the personal journal becoming a natural way of life by recording my whole experience, rather than a chore to enable research. I learned valuable lessons from my experience as a practising manager, such as improved listening and adopting a more empathetic approach, as I became increasingly aware of the impact of interaction between participants.

This deeper sense of understanding is reflected by Chia and Holt (2009), who cite Nonaka and Toyama to demonstrate knowledge being gained through expressive use, such as actually driving a car rather than a technical description. I captured experiences, not by a description using words, but through reflexive sense making from participating amongst other practising managers.

Becoming self-aware of my participation amongst others made me realise that I could not separate life outside of work. As my thinking developed through actively paying attention, I could not automatically switch off as I left the factory, so I started to record interaction with family and friends. Even during emotional times such as family illness, gaining an understanding of unpredictable emergent change allowed me to feel reassured that bad times would inevitably change. I didn't know when and how this would occur, but embracing an understanding of uncontrollable emergent change reduced my stress and anxiety. As a result, I became more empathetic towards other participants who were experiencing similar feelings at work or at home, which consequently had an impact on their future interaction.

Managing the empirical material from the start was essential as the volume of words increased significantly. A disciplined process of converting notes into an electronic format enabled a coherent and transparent process of managing the empirical material, which is explained in the following section. This approach enabled reflexive interpretation of empirical material from chapters four to seven, which illuminated insights into emergent organisational change, management practice and learning from experience.

3.5.2 Managing the Records.

Hand written field notes captured interaction which was transferred into a Microsoft Word document in a standardised table format on the same day, in order to optimise reliability and accuracy of recording. To enhance the transparency of a robust methodology called for by Gioia *et al* (2012), an individually named version of the empirical material was saved every week as a separate file, with the relevant date. This provided a transparent trail of my cumulative recordings, which allowed traceability for auditing on a daily, weekly and yearly basis over the research period.

I followed Saunders and Lewis (2012, pp.188-189) suggestion that a personal journal should include tabulated entries including title, date and summary notes. This format facilitated logical searching for dates, times and key words regarding interaction. I also included an additional section to record thoughts, feelings or reflections at the time.

The amount and content of empirical material demonstrated my beneficial position of unlimited and sustained access to known and trusted colleagues over four years. My intricate understanding and trusting relationships were built up over many years which could not have been achieved by an outside researcher. It would have been exceptionally difficult for an external researcher to fully commit themselves for such an extended period whilst also undertaking the challenge of becoming a trusted member of the group.

Computer assisted qualitative data analysis (CAQDAS) such as Nvivo can be used for developing models of thematic patterns (Bryman and Bell, 2011). Shotter (2005, p.129) argues that systematic frameworks will not lead us to a better understanding of experiencing everyday life or give us "the power of mastery over them". With respect to my research, personal feelings, relationships and team dynamics cannot adequately be interpreted by a software program, due to the complexity of the human qualities and relationships involved.

In terms of managing the empirical material, a logical process of organising the extensive content of the personal journal was followed, which reflected my training and background as an Engineer. A pragmatic and disciplined approach of organising in chronological order was taken and specific topics were split in to specific documents for focused attention and interpretation. An example was accumulating the relevant material from my encouraging experience of leading a Six Sigma team (chapter seven, section 7.3).

Lindberg and Czarniawska (2006, p.297) describe their use of field notes to explore the connections between participants. Effective management of the empirical material enabled interpretation of the initial individual threads of relationships between participants, which subsequently became woven together to form the whole narrative. Interpreting my empirical material was facilitated through reflexively re-reading and re-evaluating, to gain an understanding through the hermeneutic circle (Introna, 1997).

My Six Sigma training was based on finding solutions and I acknowledged this approach could have developed into biased interpretations, geared towards gaining a desired outcome. I minimised my personal bias by recognising this as a potential concern and took an open-minded approach by focusing on recording events prior to interpretation, which allowed findings to emerge naturally. Advantages and limitations of my at-home ethnographic approach are revisited in the conclusion (chapter nine, section 9.1.1).

Ending the recording in my personal journal was ultimately a natural process of personal satisfaction that the research questions were "answered" (Bryman and Bell 2011, p.448). This is not in the sense of facilitating positivist answers, or generalisations regarding my research questions. I felt content that gathering empirical material had been exhausted, which enabled a genuine sense of achieving an original level of reflexive interpretation.

This pragmatic approach avoided continued collection of empirical material which could have resulted in repetitive, or diminishing insights. As participation in Six Sigma teams declined, so did the time spent on gathering empirical material. This shifted my time, focus and effort towards reflexive interpretation, which facilitated emerging insights, as suggested by Cunliffe and Coupland (2012).

> "Sense and organising emerge where a story begins to come together, identities begin to make sense, identities and actions can be given a sense of narrative rationality and we can connect plot and character" (p.147).

3.6 Research Criteria of Validity, Reliability and Generalisability.

Easterby-Smith *et al* (2012, p.71) outline a summary of perspectives concerning validity, reliability and generalisability, which have been adapted for my research in Table 3.2. My ethical practice is discussed in section 3.6.1, which satisfied the university guidelines by documenting the full consent of participants. I ensured safety and security through anonymity, whilst also clarifying with participants that they could withdraw from the research at any stage of the process.

Validity.

Validity, according to Saunders *et al* (2003, p.101) is, "whether the findings are really about what they appear to be about". According to Moeran (2005), at-home ethnography is subjective as it concerns the complex interpretation of experiencing life, but also provides a valid approach.

> "The writing down of fieldwork material in such a way that it is empirical enough to be credible" (p.199).

Bell and Bryman (2011) propose internal validity as a strength of my particular research due to the long period of participation in a social group, which provides a high level of congruence between concepts, observations and experience. Conducting research through my own experience had the advantage of minimising observer error (Saunders *et al*, 2003). According to Gill and Johnson (2010, p.229), involved participation achieves a high degree of "dependability" when compared to multiple researchers.

This satisfies the question of validity in Table 3.2, where I had unrestricted access to participants in the research setting. According to Thomas (2004), insider knowledge necessitates acknowledging the researcher's own bias, which stimulated my self-awareness to become more open-minded and let events unfold naturally.

> "There is no easy answer to the fact that the ethnographic accounts are filtered through the distorting lens of the ethnographer's individuality" (p.142).

Tsoukas and Hatch (2001, p.1000) propose that reflexivity, combined with authentic experience provides a valid approach. Whilst I acknowledge bias as a researcher, my reflexive approach of using the hermeneutic circle (Introna, 1997) provided a credible approach for open-minded interpretation (Chia, 2014).

Table 3.2. Four Perspectives on Validity, Reliability and Generalisability.

(Easterby-Smith *et al* 2012, p.71).

Viewpoint	Strong Positivist	Positivist	Constructionist	Strong Constructionist
Validity	Do the measures correspond closely to reality?	Do the measures provide a good approximation to the variables of interest?	Have a sufficient number of perspectives been included?	**My research clearly gains access to the experience of those in the research setting.**
Reliability	Has the design eliminated all alternative explanations?	Will the measures yield the same results on other occasions?	Will similar observations be reached by other observers?	**My research is transparent about data collection and interpretation.**
Generalisability	To what extent does the study confirm or contradict existing findings in the same field?	How probable is it that patterns observed in the sample will be repeated in the general population?	Is the sample sufficiently diverse to allow inferences to other contexts?	**The concepts and constructs derived from my research has relevance to a range of other settings within the broad field of organisational change and management practice.**

Reliability.

A positivist definition of reliability is described by Hucsynski and Buchanan (2001).

> "Reliability refers to the degree on which an assessment or test produces consistent results when the assessment is repeated or when it is conducted in comparable ways" (p.166).

Bryman and Bell (2011, p.159), suggest that research designed for consistent results is often justified by statistical means such as Cronbach's alpha, which seeks to eliminate alternative explanations. However, Ybema *et al* (2009, p.62) declare these terms are inappropriate for a constructionist viewpoint and recommend "trustworthiness" to describe whether a study is reliable, in terms of deserving the reader's trust.

I acknowledge my experience of individual Six Sigma change initiatives cannot be repeated exactly. This is due to the unique circumstances of different personnel interacting in specific teams at a particular moment in time, or "the living present" (Stacey 2011, p.332). I acknowledge this limitation concerning external reliability (Byman and Bell 2011, p.395), by not proposing a direct a correlation between my findings and forecasted or repeatable outcomes.

The main focus is transparency about how I have collected, managed and interpreted my empirical material, in order to gain robust and reliable insights from my experience. These insights are intended to be useful in provoking further thought from other reflexive practitioners implementing planned change programs or conducting further research. I acknowledge this only applies to particular practitioners, executives, or academics who feel my research resonates with their particular circumstances.

Generalisability.

Gill and Johnson (2010, p.216) propose that generalisability, or "external validity" equates to the degree to which findings can be extrapolated across social settings. According to Easterby-Smith *et al* (2012), generalisability refers to concepts and constructs derived from particular studies which have relevance to other settings.

Gill and Johnson (2010, p.228) highlight "transferability" through inferences of a "thick description", where my research could resonate as being useful to other personnel if they feel it is worthwhile and reflects their circumstances. Although this is my intention, I do not make generalisations or proposals in order to "seek the truth" (Parker, 2000).

> "Making inductive generalisations from such a small sample, is surely to throw methodological caution to the wind" (p.218).

In order to adopt an authentic interpretation of my experience, I am mindful of becoming too reflexive, or as Weick (2002, p.894) suggests, "unwilling to bound or voluntarily terminate reflecting". Thompson, quoted by Grey and Willmott (2005) highlights the importance of becoming mindful of such pitfalls, which guided my pragmatic approach.

> "Hyper-reflexivity has been disastrous for the field of study" (p.369).

Corley and Gioia (2011) point out the useful aspects of making pragmatic proposals from research where the reader can decide whether the findings are significant. They warn against maintaining historical ways of thinking about practical research, where little emphasis has been placed on generalising. Mintzberg is cited in order to encourage researchers to develop insights and proposals from empirical research.

> "If there is no generalising beyond the data, no theory. No theory, no insight. And no insight, why do research?" (p.27).

I have avoided becoming too reflexive, as my generalisations are not intended to be repeatable in other settings, but the intention is to provide insights from interpreting my experience amongst others. My proposals could resonate with researchers in the field of organisational change or practitioners implementing change programs, if they perceive insights as relevant. However, my main aim is to provoke further thought.

3.6.1 Ethics.

The complexity of research ethics is highlighted by Seale *et al* (2010).

> "The fool-proof, universal and unshakeably founded ethical code will never be found" (p.218).

The ethical objective of the research is to minimise any risks to all participants regarding hostile responses or harmful circumstances and this has been principally achieved through anonymity. Stacey (2011) recommends how to proceed in particular situations to minimise risks.

> "There is no general ethical rule to guide the researcher in the traditional sense of thought before action. Consistent with the complex responsive processes approach, the ethics of what one does as a researcher, as with what one does in all other situations, is contingent upon the situation and the emerging and ongoing negotiation with those with whom one is interacting" (p.488).

Seale *et al* (2010, p.219), outlines a practical framework of, "codes and consent, confidentiality and trust", which have been utilised as guidelines throughout the research.

i. Research subjects have the right to know that they are being researched, the right to be informed about the nature of the research and the right to withdraw at any time.
ii. Protecting the participants identity where required and ensuring they have given their full permission.
iii. Trust refers to the relationship between the researcher and the participants.

Gioia *et al* (2012, p.19) outlines a balanced, transparent view to protect the participants interests through diplomacy and discretion, whilst satisfying the research needs. The

proposal is not to guarantee "confidentiality" which can "preclude most reporting", but ensure a focus on anonymity, which I have prioritised throughout the research.

I talked personally to the relevant participants regarding their approval and commitment to the study and clarified they could withdraw at any time. Compliance with ethical guidelines was demonstrated by participants reading, understanding and signing individual consent forms. I informed participants of the aims and objectives of researching a processual account of organisational change, which complied with the university ethical committee and relevant guidelines.

Pseudonyms were used for anonymity which included all direct participants, other associated personnel, change program initiatives and companies. I would summarise my ethical approach as being based on trust and honesty, with an absolute priority placed on minimising any risk of harmful consequences to any participants. My ethical position is based on adopting an empathetic view of conducting research involving other participants, which is well summarised by Suchman (2002).

> "Mine is an ethics of participation and enlightened self-interest; it amounts to honouring the golden rule: do unto others as you would have them do unto you" (p.11).

3.7 Summary.

I operationalised Stacey's (2011) theory through at-home ethnography (Alvesson, 2003) as an involved manager which facilitated hermeneutic understanding (Introna, 1997). I recorded interactions as part of my normal organising, which included participants who were not in my Six Sigma teams and also family and friends, through an approach of living life as enquiry (Marshall, 1999). At-home ethnography (Alvesson, 2003) is aligned with my experience amongst many participants, rather than an auto-ethnographic account which would have depicted an auto-biographical perspective.

Specific research questions guide the particular aspects of my investigation into how uncontrollable emergent organisational change emerges through changing patterns of relating, but also implications regarding management practice and learning from my experience. The study is conducted through a combination of first and second-person research in terms of my own experience and reflecting on the participation of others.

Figure 3.2 (p.46) provides an overview of my research methodology, including specific questions and use of a personal journal to gather empirical material, which is presented in chapters four to seven. Initial insights from my participation in specific Six Sigma initiatives are presented in chapter eight, which are brought together in my overall interpretation of a processual account of organisational change in section 8.5.

Chapter 4. Commencing Six Sigma: The Output 30 Initiative.

This chapter sets out the broad context of the Six Sigma program as the first of four chapters where I interpret empirical material during my participation as an involved manager. I gain insights into the main research areas of emergent organisational change, management practice and learning from my experience whilst participating in Six Sigma teams. This is guided by an overarching research question.

> "What do managers actually do during a planned organisational change program and how does change come into being?"

Output 30 was the first Six Sigma initiative as part of the subsequent implementation of nationally based teams. Initial insights from Output 30 were guided by the overall research question and the findings justified ongoing investigations into the national Six Sigma initiatives.

Chapters four to seven outline the gathered empirical material, which provides initial interpretations from the following Six Sigma initiatives. These insights are brought together for discussion and interpretation in chapter eight.

- Chapter Four: Output 30 Six Sigma team.
- Chapter Five: National Six Sigma teams. Key driver improvement initiatives.
- Chapter Six: Local Six Sigma Team. Transport supplier evaluation.
- Chapter Seven: Learning from my experience.

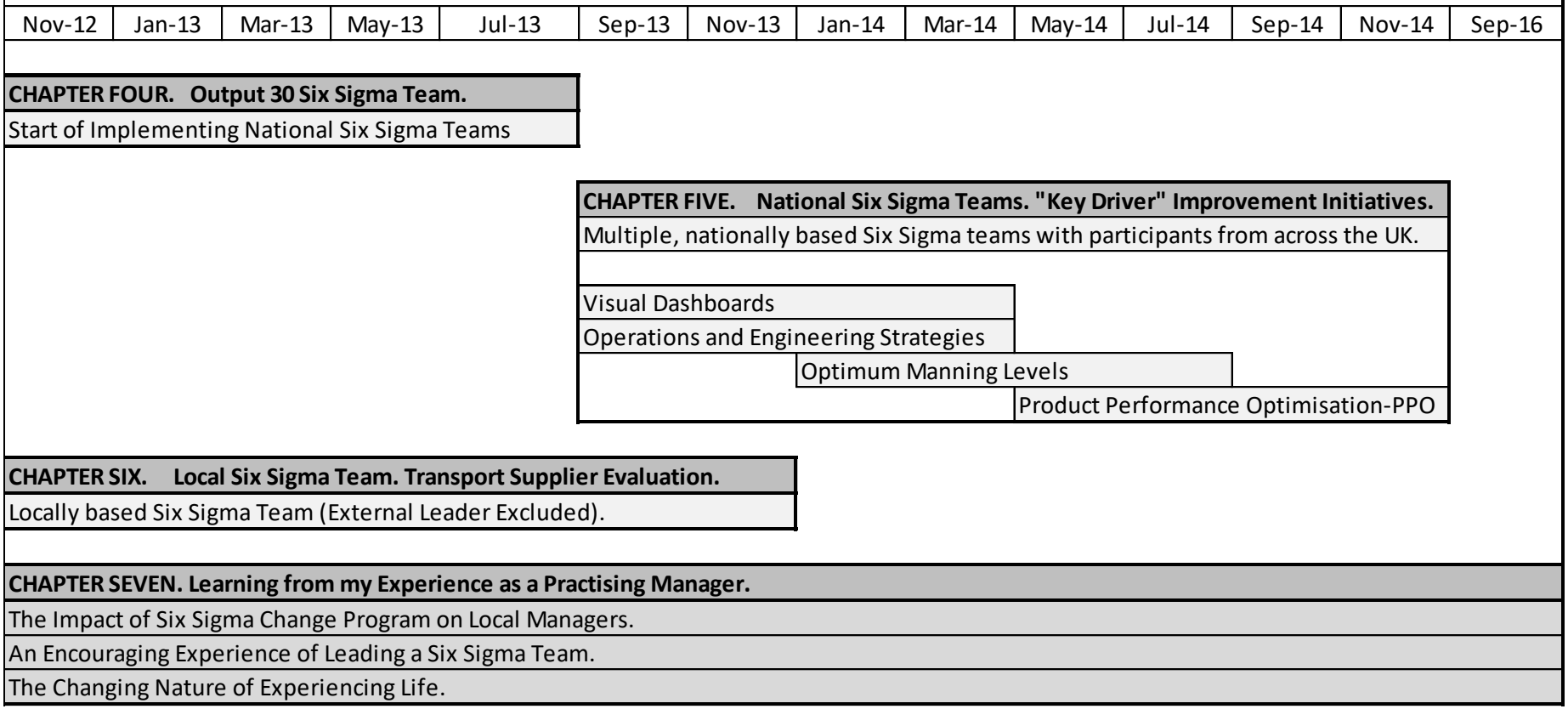
Chapter four outlines a broad investigation into how emergent change comes into being through changing patterns of relating during Output 30. This justified further research into national Six Sigma 'key driver' teams based on empirical material in chapter five.

Chapter six provides a more focused analysis of management practice by investigating the changing patterns of relating amongst a local Six Sigma team over the course of a year. I gain hermeneutic insights (Introna, 1997) in chapter seven, which encompasses the impact of the national program on local managers, an encouraging experience of leading a Six Sigma team and my participation with family and friends.

Figure 4.1. illustrates the implementation of the Six Sigma initiatives which are relevant to the specific chapters relating to my whole research experience over four years. The following section introduces my research into emergent organisational change through the Output 30 Six Sigma team, which is guided by the following research question.

> "How do the outcomes of the planned program of change initiatives emerge through changing patterns of relating within the Six Sigma teams?"

Figure 4.1. Researching the Implementation of Organisational Change through Six Sigma.



4.1 The Output 30 Six Sigma Team.

This chapter represents the first phase of the Make It Yours change program which commenced with the Output 30 initiative, led by a centrally based manager. The objective was increasing the output of manufactured product by implementing optimised machine speeds as best practice across the UK sites.

I focus attention on changing interaction through my interpretative framework as outlined in chapter two, section 2.4.4. The analytical framework of narrative themes of conversation illustrated in chapter two, table 2.2 is also utilised for paying attention to the pairings of legitimate / shadow, formal / informal and conscious / unconscious conversations.

Informal conversations between local managers demonstrated positive engagement, as they had previously worked with the external Six Sigma team manager (Kelvin). Formal communication from senior personnel initially signified commitment but changing interaction culminated in criticising the team manager, excluding him from conversations and undermining the initiative. The changing themes of conversation between senior personnel became particularly critical, which became more openly shared and contributed to Output 30 being cancelled.

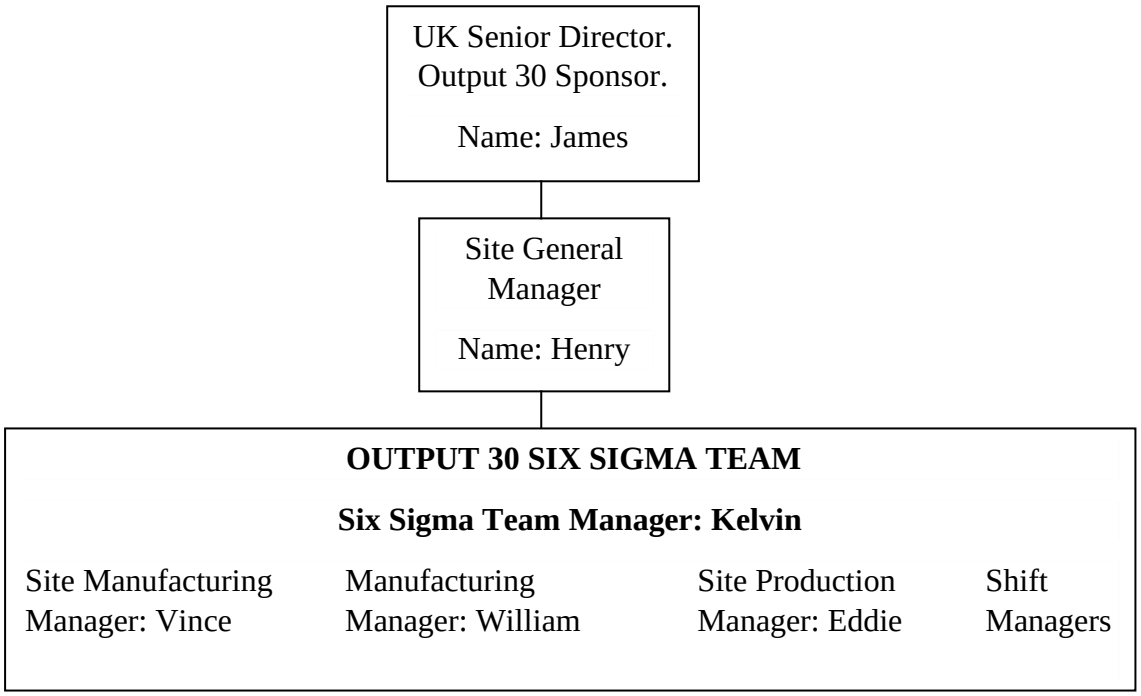
4.1.1 Team Implementation.

Output 30 was led by a centrally based Six Sigma team leader (Kelvin) and the objective was replicating best practice machine speeds across all UK plants. The intention was increasing the cumulative, national manufacturing output to achieve a forecasted target, which is consistent with implementing Six Sigma as a vehicle for planned organisational change (Da Silveira and Sousa, 2010).

Output 30 unexpectedly came about from a presentation by Kelvin to senior personnel, regarding an entirely different project on machine tooling. Manufacturing managers were aware of the expected tooling presentation, but had no knowledge that Kelvin also collected data which highlighted variations in machine processing speeds across the UK sites. As a result of analysing the data on machine speeds, senior personnel implemented the Output 30 Six Sigma initiative.

The ‘30’ in the project title referred to the targeted, quantifiable increase in national output if optimum machine speeds from the best performing plant could be replicated as best practice at all UK sites. Figure 4.2 illustrates the formal organisational chart regarding the team at the research site which also serves as a glossary of participants, where all names have been changed for anonymity.

Figure 4.2. The Output 30 Six Sigma Team.



The Output 30 team structure demonstrated commitment from senior personnel through overall project sponsorship. General managers from each manufacturing plant were tasked with overseeing individual Six Sigma teams. The structure is consistent with literature supporting the notion of managers positively influencing Six Sigma teams to achieve forecasted targets (Gutiérrez Gutiérrez *et al*, 2016).

4.2 Participating in the Output 30 Six Sigma Team.

First formal meeting. November 9th, 2012.

Kelvin presented quantitative targets forecasting the significant national increase in output if the optimum machine speed could be implemented as best practice across the UK sites. On reflection, he seemed quite anxious due to being personally accountable for positively influencing such a wide-range of multiple teams to achieve a national target.

> Kelvin: "I thought it might be a good idea for the implementation that I share the findings with this group" and continued, "it's all about getting outputs up really".

Kelvin informally commented on a lack co-operation from some of the other sites and this lack of support appeared to adversely affect his confidence. I tried to reassure him that we had previously worked together and he had our support.

> Me: "You know you've always had our full support".

Our previous relationship was helpful in generating a degree of commitment. In addition, the group empathised that achieving the Output 30 forecasted target was an almost impossible task for one person. After a general discussion, Kelvin outlined formal commitment from James, who was the senior director sponsoring Output 30. This initial support took the form of a threat for those sites perceived as not fully engaged, with the consequences of being "named and shamed".

> Kelvin: "I've been told [James] that those individual plants that don't participate or not taking it seriously will be named and shamed".

This threat had the intention of encouraging competition between sites and lead to greater activity, in order to avert being "shamed" across all the UK sites. However, it didn't have the desired effect. I sensed the atmosphere of the meeting ebbing away after this comment, as the excessive use of power felt unnecessary to reinforce support for Kelvin and Output 30. The initial empathy and support from the participants, shown by wanting to help Kelvin, started to wane as he continued his presentation.

I felt the quantitative data indicating the direct correlation between increasing speeds and a step change in national output did not reflect the complex nature of individual sites making bespoke products. Each site had a wide range of different capabilities in terms of machines, auxiliary equipment, product design, order quantities and skill levels regarding machine operators. However, I felt discussing this alternative view formally might undermine the confidence of the team further, or be interpreted by Kelvin as negative.

In addition, the approach of naming and shaming also made me wary that Kelvin could inform James that the local team were not committed to Output 30. Eddie demonstrated his reticence to contribute his real, honest views in formal meetings when we engaged in a shadow conversation a few days later.

Shadow themes of conversation. November 13th, 2012.

I had known Eddie for several years, so it was not usual in our working relationship to have shadow conversations where we exchanged honest, private views outside of formal meetings. When I enquired about the initial Six Sigma meeting, Eddie suggested a new, alternative idea of prioritising machine downtime instead of focusing on speed, which he thought would be more beneficial.

> Me: "What did you think of the meeting?"

> Eddie: "I honestly don't think that targeting speed is our biggest issue".

These comments portrayed a scepticism of the initiative, but he also a positive attitude towards improvement through his alternative proposal to the Six Sigma forecasted target. Eddie's alternative idea was improving machine downtime, (such as breakdowns) as a more effective way of increasing manufacturing output. He also expressed his lack of confidence that other sites would be fully engaged with Output 30 and on this basis, he was sceptical that the Six Sigma target would be achieved.

> Eddie: "If I'm brutally honest, it's destined not to do anything. We've made sure there's people attending meetings, but others are not bothered, or even worse, choosing not to do it".

I was inquisitive to find out whether Eddie would formally share his alternative idea of improving machine downtime in a formal setting. He explained that any alternative proposal would be perceived as negative in a formal Six Sigma meeting.

> Me: "Would you be comfortable sharing this in a proper meeting?"
>
> Eddie: "No, not really, it's not in my nature to sound negative. I know you won't take it that way because I'm always up to try it and see if I'm wrong".

Eddie disagreed with the emphasis on machine speed but he had already assumed that his idea of focusing on downtime would not be pursued formally. This did not affect his commitment to the initiative as his previous relationship with Kelvin appeared to be more significant, shown in his empathic approach of trying to help.

> Eddie: "Mind you, I like Kelvin, so we'll do what we can to help".

This comment demonstrated the strong relationship with Kelvin which was built up over many years of working together which felt more influential than forceful instructions. The threat of 'naming and shaming' from senior personnel felt like an excessive use of hierarchical power and the impact was diminishing enthusiasm amongst participants.

Six Sigma quantitative measurement. November 20th, 2012.

Formal themes of conversation during a conference call chaired by Kelvin outlined the quantitative target versus actual performance by site and cumulatively for all UK sites. The quantitative monitoring of Output 30 utilised a standardised Six Sigma spreadsheet with actual output performance measured against forecasted increases, which was emailed regularly to all participants.

Based on Eddie's alternative idea, it's reasonable to assume that participants at other sites would have thought of different proposals, but no-one put forward any diverse ideas. This demonstrated the contrast between shadow themes of conversation expressed amongst trusted colleagues and compliance at formal meetings, which was shown by not challenging the Six Sigma target.

Formal support changing into shadow themes. December 3rd, 2012.

The first set of quantitative measures from Six Sigma spreadsheet highlighted the overall UK output as decreasing by 2.2% compared to the previous month. I assumed the negative results would not be formally viewed too seriously as the Six Sigma teams were still in the early stages of development. However, several iterations of emails appeared to commence with humorous, but sceptical comments and notably, Kelvin was excluded as he was not copied. Henry sent an initial email to James, myself and other managers.

> Henry email message (December 3rd, 2012).
>
> "Crikey, Kelvin's running a great project!
> So far, he's lost [quoted volume data] out of the sector!!!
> Why would you ever send out a report like this?
> Another central [Six Sigma] initiative to wind you up…….
> Have a great weekend.
> Best Regards,
> Henry".

Kelvin had the almost impossible task of being made solely accountable for achieving the national target which included multiple sites. There was no effort to assess the progress of individual sites, or any positive indicators on the Six Sigma data. The senior personnel who sponsored and were meant to support Output 30 were actually sceptical, based on believing quantifiable data as proof of a lack of progress. Further email conversations reflected growing criticisms.

Developing formal criticism. December 18th, 2012.

Six Sigma results were sent prior to Christmas which also indicated an overall reduction in output across the multiple sites of 1.25%. This prompted a second iteration of emails from senior personnel and the changing conversations were less humorous with more open criticism.

This development prompted James into sending a formal email to Kelvin (and copying others), requesting a meeting to review Output 30.

> James: "Kelvin, can we have a formal review in the new year after December numbers… I will forward an invite shortly".

The email from James prompted a critical response from Henry. The response was shared with everyone on the original message, except Kelvin, which demonstrated his further exclusion.

> Henry: "Put very conservatively James. Another stunning rendition for Output 30".

James' reply illustrated the changing patterns of relating from the original, formal support of the Six Sigma initiative. Attempts at humour started to develop into increasingly open criticisms and formally threatening tones.

> James: "If we pull him (Kelvin) out we might see an improvement!!!
> Now he wants to extend the scope!!!
> Thank God it's Christmas before I see him".

The changing themes represented criticism of the initiative, but also Kelvin, which prompted a premature decision by James to formally review the progress of Output 30. On reflection, no-one expressed the reality that no single manager could realistically influence and improve the national output consisting of multiple sites across the UK.

Reinforcing formal criticism. December 20th, 2012.

Henry expressed his criticism in a private conversation between us, which I initially took as an attempt at humour. However, it felt like Henry was reinforcing his own inclusion in the group of senior personnel by agreeing with James and inferring Kelvin was an incapable manager.

> Henry: "I said to James, it's just as well it's not called output 50! What is he (Kelvin) doing? He's sent out two lots of negative figures, that's a good project!" (laughter).

Formal team meeting: January 9th, 2013.

The initial conversations at the meeting on January 9th, 2013 reiterated the intention of achieving Six Sigma forecasted targets through adopting best practice across all UK sites. However, my attention was drawn not just to the words describing the formal benefits of Six Sigma, but the tone and atmosphere of the meeting. It felt like the initiative was being described more negatively, illustrated by Kelvin outlining the decreasing participation at various sites.

> Kelvin: "It can get a bit frustrating that we haven't made as much progress as I'd like at other plants".
>
> I asked: "Do you mean in results, or commitment?"
>
> Kelvin replied: "A bit of both really".

Kelvin's deflated tone felt like acceptance that Output 30 would not achieve the intended target and formal participation at Six Sigma meetings was declining as the shadow themes of conversation grew. He did not refer to any attempts at formal support from senior personnel, such as enforcing he initial approach of 'naming and shaming', even though there was a lack of participation from some of the other sites.

Shadow themes exhibiting exclusion. January 9th, 2013.
I had a private conversation with William as he was at the research site, although he did not attend the formal Six Sigma meeting. He commented about initially trying to help Kelvin at the very start of implementing Output 30, but he didn't seem enthusiastic.

> William: "We've tried to help him out where we can".

He took a more critical tone, based on his mistrust that Kelvin had started the initiative as a tooling project, but then covertly collected extra data on machine speeds without sharing it with other managers. It was evident that William took this as a personal criticism of his ability as a manufacturing manager as the reported speeds at his site were lower than expected.

> William: "It was a bit naughty to start off as a tooling project and then say on the back of that, we should go a bit quicker and create a load of capacity".

I outlined the unrealistic formal approach of assuming Kelvin could influence multiple sites to achieve a generic forecasted target, especially without support from senior personnel. Rather than agreeing, William continued the theme of criticising Kelvin.

> William: "He's not done the right thing. I think it was never going to be a massive success".

I revisited our conversation on January 10th, 2013 where William reinforced his mistrust in Kelvin, due to acting in an "underhand" way. This feeling was based on Kelvin presenting the covertly collected data on machine speeds to senior personnel, when the initiative was originally conceived as a tooling project.

> William: "You know as well as I do Vince that it all felt a bit underhand and it still does a bit now".

Shadow conversations of this nature were evident from a growing number of personnel who excluded Kelvin, shown by examples of open criticisms from senior personnel. However, it was still unexpected and seemed like a premature decision when a formal change emerged.

4.2.1 The Cancellation of Output 30.

Unexpected, emergent change. January 18th, 2013.
The formal review meeting between James and Kelvin had taken place by this date and there was confirmation by email that Output 30 was changing.

> Kelvin: "Due to a lack of progress and engagement at the majority of his (James) sites, we've reviewed the project so far and decided to take a fresh approach".

The email explained that Output 30 was being scaled back to one site, although there was a caveat that it could be expanded again if the individual results were encouraging. This actual emergent outcome from the changing patterns of relating was significantly different from following the Six Sigma DMAIC steps to achieve the forecasted target.

Unexpectedly, the original quantitative monitoring for the national outputs continued to be emailed to the same personnel and prompted further interaction. The Six Sigma measures were still in place, even though the vast majority of the teams across the national sites were disbanded. Iterations of email conversations also continued, which escalated in terms of criticising Kelvin and Output 30, even though he was no longer leading the initiative on a national basis.

Iterations of critical emails. May 24th, 2013.

The Six Sigma quantitative results continued to decrease shown by a fall in output of 1.48% and this sparked more email interaction from Henry and other general managers. An escalating critical tone from Henry was evident by sarcastically suggesting Output 30 was having a positive effect on the increasing company share price.

> Henry: "What a fantastic project. Must be behind the share price!!"
>
> Another general manager responded: "Better not start the next project for a while……."

A further decrease during the following month (June 25th, 2013), illustrated a similar tone of email interaction.

> Henry: "A fantastic project…."
>
> Another general manager responded: "Glad [specific site name] hasn't been subjected to these improvements yet!"

Informal indication of cancellation. June 26th, 2013.

The only indication of postponing Output 30 was through Kelvin's previous email to the relevant participants although formal cancellation was not confirmed. However, I unexpectedly met Kelvin at a local site where he made it clear that Output 30 was not just being scaled back to one site, as it was going to be cancelled.

> Kelvin: "I should be wrapping up Output 30 soon".
>
> I asked: "Oh right, I see some of the numbers occasionally, but it's coming to a close then?"
>
> Kelvin answered: "Yes, we've proved a few things, but I think it's something you could use for an improvement initiative, like a one-off I suppose, where you need more capacity urgently, but it's difficult to sustain".

Kelvin seemed very despondent based on his conversational tone and body language. I made a reflective note in my personal journal at the time, which summarised my empathy with Kelvin regarding a lack of support from senior personnel.

> My reflection at the time: "Did get a feeling that Kelvin had enough of Output 30 and maybe felt unsupported, partly with what he didn't say as much as what he did. There was no real confidence or positive tone in his voice".

There were no further Six Sigma meetings or formal declaration of cancellation. Instead, nationally based Six Sigma teams were subsequently implemented for multiple 'key driver' initiatives, as outlined in chapter five. The following interpretations provide initial insights from my interpretative framework which form part of a more detailed and wide-ranging discussion of my whole experience in chapter eight and section 8.5.

4.3 Paying Attention to the Changing Patterns of Relating.

The intention was implementing an optimum machine speed across all UK sites, to achieve the forecasted improvement in national output. However, the Six Sigma forecast took no account of unpredictable emergent change through the changing patterns of relating between participants, which is discussed in the following sections.

4.3.1 The Quality of Participation.

On reflection, the quality of participation lacked the flexibility to explore innovative solutions. Participants followed the initial conditions based on the DMAIC steps and a forecasted target, set by senior personnel who did not understand the varying complexity of products manufactured at each site. This resulted in lost opportunities by not pursuing alternative approaches such as Eddie's idea of exploring unplanned machine downtime.

The Six Sigma team was constrained through the initial conditions outlined by a narrow target of increasing speed which restricted the quality of participation. The reticence to formally propose alternative ideas was shared by Eddie when I asked him if he would share his idea in a formal Six Sigma meeting.

> Eddie: "No, not really, it's not in my nature to sound negative".

Forceful threats such as 'naming and shaming' didn't encourage committed participation, but historical relationships with Kelvin appeared to be more beneficial in engaging team members. Ongoing interaction had a greater impact on promoting participation in comparison to either Kelvin's leadership position, or threats by senior personnel. This was reflected in informal conversations with Eddie, demonstrating the local team's initial commitment, even if other sites were not so keen.

Eddie: “Mind you, I like Kelvin, so we’ll do what we can to help”.

Kelvin’s participation was adversely affected by senior personnel excluding him from email conversations, so he had no recourse to address the growing criticisms. Growing criticism through shadow conversations undermined Output 30 and Kelvin, which adversely affected committed formal participation in Six Sigma team meetings.

4.3.2 The Quality of Conversational Life.

The formally imposed initial conditions of a forecasted increase in machine speed restricted conversations, rather than encouraging an open-minded approach to investigate other ideas based on local experience. Eddie had a deep understanding of the complexities of local manufacturing, but he felt his informal idea of investigating machine downtime would not be pursued and consequently did not raise it at the formal Six Sigma meetings.

The initial support of senior personnel, through formal conversations were changing into simultaneous shadow themes from the very same people. The email conversations which excluded Kelvin started as humorous, but became increasingly critical. These shadow themes of conversation were changing to becoming more open and legitimate. The impact was a growing consensus that the forecasted target would not be met. This contributed to prompting a formal review by James and a premature decision to cancel Output 30.

> James: “Kelvin, can we have a formal review in the new year after December numbers… I will forward an invite shortly”.

Shadow and informal conversations were changing to becoming more formal and reflected cancellation as the only realistic option. The wasted time, expense and energy did not change the emphasis of formal conversations between senior personnel to improve Output 30. Instead, the focus shifted to the new priority of national Six Sigma teams.

4.3.3 The Quality of Holding Anxiety.

William illustrated his criticism of Kelvin regarding the implementation of Output 30, describing his actions as “underhand”. This was not due to any personal dislike of Kelvin, but William felt he acted in an untrustworthy manner by covertly collecting data on machine speeds. Kelvin initially presented a tooling project, but then offered an alternative analysis of varying machine speeds to the directors. This included a project proposal to implement a nationwide increase in production output through Six Sigma.

This approach undermined William’s identity as a manufacturing manager as he was personally responsible for improving machine efficiencies at his own site. On reflection, this instilled an anxiety that Kelvin might continue to act in a “underhand” way. This reinforced William’s criticism and opinion that Output 30 would not be successful.

> William: “He’s not done the right thing. I think it was never going to be a massive success”.

This mistrust and anxiety prompted William to form an attitude of excluding, rather than supporting Kelvin, which was shown through shadow conversations. William did not keep an open mind about participating in Output 30 as he joined in with the escalating criticism from senior personnel. The changing shadow themes of conversation amongst a growing number of participants promoted a lack of confidence that the forecasted target would be met. This was also reflected in Kelvin’s lack of enthusiasm, confidence and anxiety as he felt undermined by senior personnel who were not supporting the project on a national basis.

> Kelvin answered: “Yes, we’ve proved a few things, but I think it’s something you could use for an improvement initiative, like a one-off I suppose, where you need more capacity urgently, but it’s difficult to sustain”.

James did not choose a route of reflecting and flexibly adapting the target to attempt to re-engage the participants. He chose to side with the shadow themes of conversation and be viewed as decisive in taking “a fresh approach”. However, in contrast to exploring opportunities such as Eddie’s alternative idea, the “fresh approach” meant cancellation.

4.3.4 The Quality of Diversity.

Excessive use of power through formal communication such as the threat to name and shame felt demotivating, which reduced the possibility for diverse ideas. The threat contributed to an attitude of compliance by strictly following the Six Sigma DMAIC steps rather than promote diverse views and ideas.

Promoting diversity may have been assisted by senior personnel taking a proactive approach of enquiring about alternative ideas at formal meetings. This may have prompted experienced personnel like Eddie raising his idea to explore an alternative opportunity which would have been more beneficial than cancellation. Instead of promoting diversity by challenging the Six Sigma forecasted target, senior personnel blamed Kelvin as an ‘incapable’ manager as he could not influence progress across multiple sites.

> Formal Email: “A lack of progress and engagement at the majority of his sites”.

4.3.5 Unpredictability and Paradox.

Paradoxically, there was initial support from senior personnel whilst critical shadow themes were simultaneously developing from the same people. The threat to name and shame those sites who were not committed was never attempted. At the same time, senior

personnel took part in critical themes of conversation which undermined and blamed Kelvin personally. The initial local engagement was unpredictably shifting towards less participation and Kelvin became excluded from these changing patterns of relating.

Informal conversations highlighted the fantasy that Kelvin could influence an increase in national output across multiple sites. However unpredictable it seems on reflection, senior personnel still made Kelvin accountable, shown by their pointed critical conversations when the Six Sigma results were published. These critical and escalating emails became increasingly legitimate through a growing consensus towards cancellation, which could not have been predicted beforehand.

It is inconceivable that a group of senior personnel would commence Output 30 with any thought of cancellation, but it unpredictably emerged through the changing patterns of relating. There was no attempt to embrace a diverse approach by accepting emergent change and investigating alternative ideas. On this basis, cancellation emerged as the only realistic option.

The cancellation of Output 30 prompted a formal approach of attempting greater management control to implement a range of national Six Sigma ‘key driver’ teams. This provided an opportunity to continue research, as outlined in chapter five.

Chapter 5. National Six Sigma Initiatives.

In this chapter I interpret my experience of participating in multiple Six Sigma initiatives undertaken by nationally based teams. Following the cancellation of the locally based Output 30 initiative, there was a shift to a broader scope of national Six Sigma teams led by nominated manufacturing managers across the UK sites. A greater emphasis was placed on managers influencing the teams, shown by newly appointed Six Sigma personnel. Additional measures were also put in place, such as imposed team managers overseeing the DMAIC steps for each initiative and database tracking for accountability.

However, instructions to strictly follow the Six Sigma DMAIC steps and an authoritative approach from senior personnel at formal meetings caused frustration and anxiety amongst participants. Legitimate concerns and alternative ideas were initially raised by participants in an attempt to change direction. However, as they were discarded, those views transferred to becoming discussed as shadow conversations outside of the formal meetings, between trusted colleagues. The changing shadow conversations then subsequently had an adverse impact on participation in formal meetings, which resulted a lack of progress regarding the national Six Sigma targets.

The lack of progress led to greater attempts at control from senior personnel and the changing formal communication reflected an increasingly coercive style of management. In some cases, this resulted in personnel leaving the business by either voluntary or involuntary exclusions. Rather than participants being forced into committed engagement, they ‘played the game’ through a façade of compliance.

Continuing to strictly follow the Six Sigma DMAIC steps at formal meetings highlighted a lack of momentum and enthusiasm to explore alternative opportunities for improvement. Gathering empirical material came to a natural end as the formal meetings demonstrated increasingly stifled interaction as there was no flexibility in the Six Sigma DMAIC steps or ability to challenge the forecasted targets with diverse ideas. Formal decisions were taken to cancel Six Sigma initiatives and move on to the next priority, which was the Product Performance Optimisation (PPO) initiative outlined in section 5.4.

5.1 Researching the National Six Sigma ‘Key Driver’ Teams.

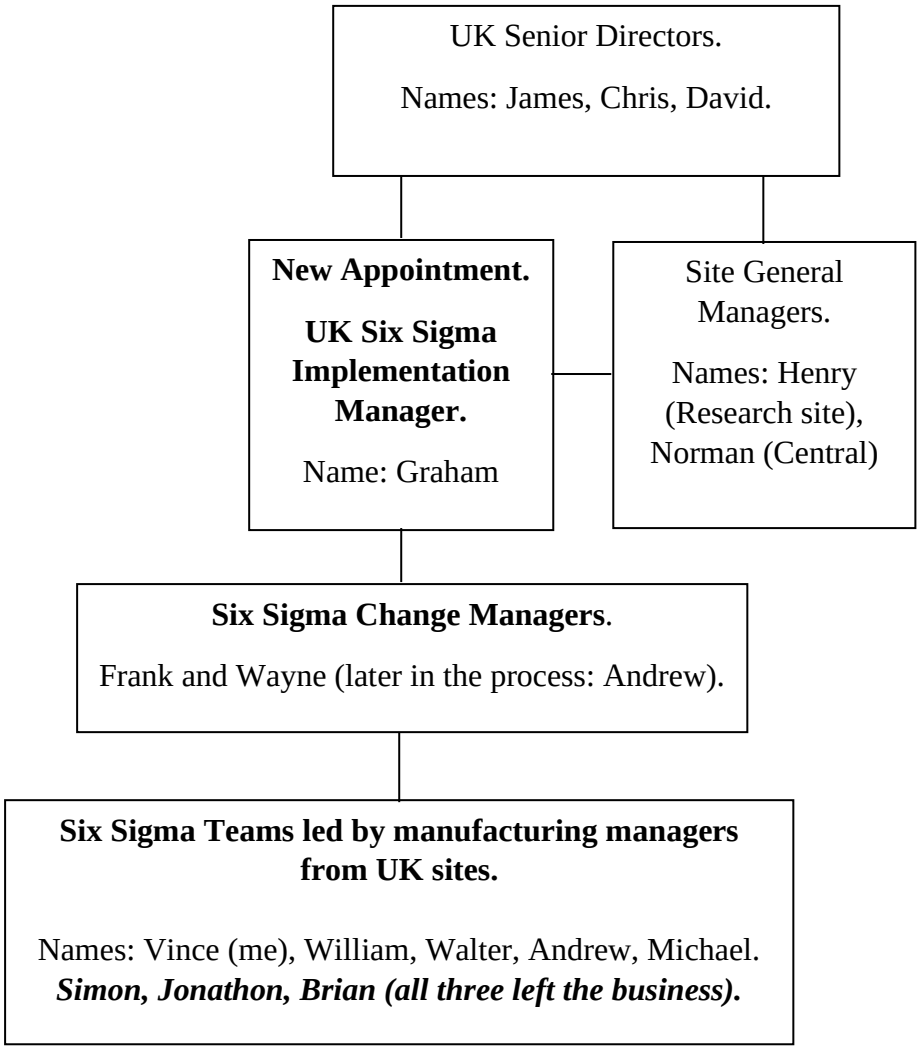
This chapter discusses how emergent organisational change comes into being, which is guided by the following research question.

> “How do the outcomes of the planned program of change initiatives emerge through changing patterns of relating within the Six Sigma teams?”

The ‘key driver’ label symbolised the formal significance placed on the national Six Sigma program, with the intention of improving manufacturing efficiency to achieve forecasted targets. In comparison to Output 30 the structure was significantly expanded, which demonstrated a greater emphasis on following Six Sigma training, where the language focused on the ability of managers to predict and control. The structure included more senior directors, whilst also appointing a new UK Six Sigma implementation leader and two change managers.

Figure 5.1 shows the structure of the new national Six Sigma teams, which also serves as a glossary of participants, where all names have been changed for anonymity. The participants included three manufacturing managers who subsequently left the business, as shown below.

Figure 5.1. The National Six Sigma Teams.



The aim of this chapter is to ascertain how emergent change comes into being through the changing patterns of relating, contrasting with the expectation of national Six Sigma teams to achieve forecasted targets. To gain initial insights, I use my interpretative framework to focus attention on the changing patterns of relating as listed below, providing initial insights outlined in section 5.5.

- The quality of participation.
- The quality of conversational life.
- The quality of holding anxiety.
- The quality of diversity.
- Unpredictability and paradox.

The narrative themes discussed in chapter two (table 2.2) are also utilised regarding interactions from pairings of legitimate / shadow, formal / informal and conscious / unconscious conversations. Initial insights from the national teams in section 5.5 form part of further discussion in chapter eight and section 8.5, which uncovers interpretations from my whole experience of the Six Sigma organisational change program.

5.2 National Six Sigma Team Initiatives.

The national Six Sigma teams were formed to undertake specific initiatives as summarised in the following sections. The individual initiatives were visual dashboards, operational and engineering strategies and optimum manning levels, which all had forecasted and defined Six Sigma targets.

5.2.1 Visual Dashboards.

Visual dashboards were large TV screens, installed on each production machine, which were intended as a standardised production monitoring and improvement tool. Real time efficiency measures, such as speed versus target were displayed, in a similar visual format of a car dashboard. The intention was prompting the machine operator to increase the manufacturing efficiency for each order to achieve ‘best practice’, based on comparisons from all of the national sites.

The main indicator was a speed dial incorporating coloured bands to represent a comparison of the current machine speed versus a target which was calculated on the average of several previous orders. For example, a red band indicated a lower speed to the previous manufacturing average efficiency, green as similar and purple exceeding the previous running rate and therefore achieving the Six Sigma best practice level.

The significant cost of the implementation is demonstrated by the scale of the required equipment. Large TV screens were installed in the offices of production managers and on each of the eleven machines at the research site. Extensive additional costs were incurred for the development of the software and machine interface, designed specifically for this purpose. The equipment cost was multiplied across ten of the UK sites and Walter was nominated by senior personnel to lead the Six Sigma team. The forecasted target was a quantitative increase in manufacturing output of nine percent.

5.2.2 Operational and Engineering Strategies.

Operational Strategy.

Every manufacturing manager was tasked with formatting an operational strategy document for each site (September 4th, 2013) with the intention of a best practice version being chosen for implementation across the UK. This key driver initiative had the objective of prescribing the method of analysing and choosing future Six Sigma teams based on key, strategic drivers for the business. The aim was implementing operational and engineering initiatives to achieve efficiency improvements to meet the company strategy of a forecasted profit increase of six percent.

Engineering Strategy.

James nominated me as a Six Sigma team leader to develop an engineering strategy (September 2nd, 2013) for implementation as best practice across the UK sites. In a similar fashion to the operational strategy, the intention was engaging a Six Sigma team comprising of participants from across the UK. The task was developing a strategy to guide future Six Sigma teams to improve machine reliability regarding the manufacturing processes across the UK. The intention was reducing unplanned machine downtime below ten percent, in order to be comparable to world class status.

5.2.3 Optimum Manning Levels.

The objective of the Six Sigma team was proposing optimum manning levels at each UK site through a structured DMAIC assessment. The intended outcome was defining and implementing the minimum amount of personnel required to operate each specific type of production machine. The objective was implementing best practice across all UK sites, to achieve a forecasted three percent reduction in labour costs. Andrew was nominated to lead the national Six Sigma team with all manufacturing managers as team members.

5.3 Participating in the National Six Sigma Teams.

The formal launch of Six Sigma key driver program took place on September 2nd, 2013 and a presentation was conducted by James with the attendance of all manufacturing

managers. Specific improvement initiatives were allocated to individual manufacturing managers who were instructed to lead specific Six Sigma teams. All of the teams were overseen by two appointed Six Sigma change managers (Frank and Wayne), with progress monitored on a central database. When James was asked why the two Six Sigma change managers were necessary, he explained the need for direct contact to positively influence the progress of teams.

> James: "I need a point, or couple of points of contact".

James also outlined the possibility of promotion for managers who were committed to the Six Sigma program. There was also a more threatening insinuation that the right type of manager was required to achieve the Six Sigma targets.

> James: "It's a chance for people to put their heads above the parapet, to have a chance to shine".
>
> James clarified: "[Achieving the Six Sigma target requires] the right people in the right roles".

The following sections outline the implementation of national teams, the relative progression in comparison to the forecasted targets and the formal cancellation of multiple Six Sigma initiatives.

5.3.1 Implementing National Six Sigma Teams.

Formal power. Conference call. September 5th, 2013.

The first formal conference call was chaired by Frank and he started by clarifying the accountability of all manufacturing managers, to ensure the Six Sigma DMAIC methodology was followed. This was symbolised by the new Six Sigma 'tracker' database to monitor actions and timescales for completion, which he described as "owned", in terms of accountability for each manufacturing manager.

Frank adopted a confrontational tone to demonstrate the assumed power associated with his new leadership position. This excessive use of power immediately felt de-motivating.

> Frank: "Is everyone happy with their projects on the tracker? Because no answer means that we're all ok with it".

As the database and teams were new, it was unlikely that everyone was clear on how to progress their individual initiatives, because I wasn't! No-one responded, which demonstrated a form of compliance which was not representative of team engagement promoted in Six Sigma (Gutiérrez Gutiérrez *et al*, 2016). Frank mentioned the close relationship with James regarding the Six Sigma change manager roles and challenged participants to respond.

> Frank: "So what do we all think of the positions that myself and Wayne are taking?"

There was complete silence and the meeting lacked any positive atmosphere or engagement, which was exacerbated when Frank confronted each person individually.

> Frank: "Why don't we go around individually. Let's start with you Vince as you were first to join the call?"

I felt ambivalent and demotivated rather than being compelled to challenge Frank's status, so I complied with a legitimate response. I noted my answer at the time as 'bland' as it didn't challenge Frank, or represent my real thoughts that the appointments were divisive.

> Me: "James outlined that you two would co-ordinate the Six Sigma teams and he needed a couple of points of contact".
>
> Frank: "Thanks Vince".

The other managers also complied, but with similar frustrations to me. My thoughts were based on the exclusive appointments of Frank and Wayne as there was no formal process of job advertisements or the opportunity for other managers to apply. Frank's confrontational attitude promoted a shared understanding between participants that compliance was the preferred response. In contrast to the formal compliance, shadow conversations with William reflected my thoughts.

Shadow Themes of Conversation. September 6th and 11th, 2013.

I had a trusting relationship with William as our sites were in the same region, so we worked together frequently. During an unplanned meeting William pointed out that Frank and Wayne had repeatedly used James' name, to illustrate their inclusion with the senior group of directors.

> William: "Come on Vince, you can see it; James this, James that, it's already done. They're in there with the right people, they're sorted".

William also raised a serious point which was never adequately dealt with at any formal meeting. This related to the amount of involvement and focus on national Six Sigma initiatives, which could possibly have an adverse effect on performance at local sites.

> William: "Being serious for a minute, you have to be careful not to lose what you've got at the (local) plant".

I met William again on September 11th, 2013 and he qualified his remarks by suggesting the formal themes of conversation were politically motivated towards Frank and Wayne's personal career aspirations. The shadow themes reflected building alliances amongst splintered groups of manufacturing managers as they felt excluded from the senior group.

Unexpected formal impact of a shadow conversation. September 18th, 2013.

There was an unexpected formal impact from a shadow conversation between myself and Henry after an unconnected meeting at the research site relating to absence levels. I expressed my concerns about allocating local resource to complete the tasks associated with the national Six Sigma key driver teams and the possible adverse impact on the site.

> Me: “To be honest Henry, it’s very stretched and it’s even more difficult because we’ve got the Six Sigma projects, which may end up taking priority over what we do at the site. The projects from senior people, you know the key driver projects”.

I only realised after reflecting on my recorded notes that I unconsciously referred to William’s previous comment during our shadow conversation, “you have to be careful not to lose what you’ve got at the plant”. Henry unexpectedly said he would speak to James, which surprised me, as I thought he might want to avoid any possible conflict.

> Henry: “They should know which business is doing ok and leave them alone a bit. I’m happy to tell anyone we’re doing what’s right for this site and I’m phoning James anyway, so I’ll mention it to him that we have a lot of people off, so we’ll have to do the right thing”.

The shadow conversation initially appeared to change the formal direction of the national Six Sigma teams, when Henry phoned me later that day.

> Henry: “I did speak to James earlier and said we’re a thin structure anyway, so we’re going to be up against it, you know, so if there’s not much progress on Six Sigma projects, that’s why and he was fine with that. Yes, he had no problem with that at all”.

However, reflecting on the empirical material shows the reality that no formal change took place, as the priority placed on the national Six Sigma initiatives continued unabated, including team meetings with no mention of prioritising local organising. The conversation between Henry and James did not filter through to Frank and Wayne as the topic was never raised at formal Six Sigma meetings. Therefore, the intention of balancing the time and resource between local and national initiatives did not come to fruition.

Increasing use of formal power. National Six Sigma Meeting. September 26th, 2013.
At a formal meeting with all the manufacturing managers I noticed the absence of Jonathon. I was informed informally by others that he had left the company at short notice, allegedly on an involuntary basis. The formal conversations promoting Six Sigma were becoming more confrontational from senior personnel demonstrating their assumed power. These factors made me feel anxious and the atmosphere did not feel buoyant when each manufacturing manager presented updates regarding their specific Six Sigma teams.

Simon volunteered first and he expressed minimal progress from a manufacturing efficiency team associated with visual dashboards. He highlighted that his opinion might not be well received by senior personnel in the formal meeting.

> Simon: “I might as well (go first). If I didn’t have a target on my back before this, I will after” (laughed).

He started by explaining there was a lack of response when he sent his formal meeting invites which led to poor attendance from some of the manufacturing managers in the room.

> Simon: "Only four responded, which was disappointing. It's only common courtesy to reply and only one turned up for the meeting, so it was a complete waste of everyone's time".

Simon then suggested more formal support from senior personnel might be required, when he asked Chris (director) if he could assist in encouraging participation.

> Simon: "Perhaps the [team meeting invitation] emails need to come from you Chris, I don't know?"

There was a pause amongst the group and I sensed that Chris would fill the silence with his response. He did not address Simon's query, but stated quite aggressively that the manufacturing managers had demonstrated a lack of commitment.

> Chris: "They should respond as a minimum".

Frank blocked any further formal interaction by agreeing with Chris by forcefully expressing the consequences for a lack of committed participation in the Six Sigma teams.

> Frank: "Yes and if they don't; well, they'll be accepting whatever as best practice. That's it".

The Six Sigma presentations indicated minimal progress on forming teams and none had developed significantly or achieved any forecasted targets. The meeting was running behind schedule, which meant there was not enough time for my update. I felt fortunate and relieved as I was not in a position to report any real progress. The lack of engagement at the formal meeting was demonstrated by a humorous, but sarcastic comment from one of the participants as the meeting closed, which resulted in laughter from the group.

> "I've lost the will to live".

Shadow conversation indicating exclusion. September 27th, 2013.

William phoned me the next day and he immediately focused on the formal meeting. He expressed his feelings of exclusion from the senior personnel, by explaining the splintered groups within the national team structure.

> William: "Exactly what I thought would happen. It's only the ones that are the shining lights that want to take part, some others can't be bothered and some deliberately don't. I think we've had this conversation before, you have to keep your head down because there's no point in being shot!" (both laugh).

We continued the humorous exchange by declaring how pleased we were to avoid having to present our project updates regarding our respective Six Sigma teams. William intimated the best option for coping was "keep your head down" as the alternative could be harmful consequences for non-compliance, which he described as, "being shot". On reflection, our exchange reflected our shared anxiety based on the coercive formal responses to Simon (September 26th, 2013) and Jonathon leaving the business. The shadow conversations altered our participation in formal meetings towards 'playing the game', by doing just enough to comply.

Increasing attempts at control through formal power. October 14th, 2013.
An email from Frank demonstrated an increased formal focus on managers influencing their teams to follow the DMAIC steps to achieve the forecasted targets. This increasing pressure resulted from the formal expectations put in place by James.

> Frank: "Please note he [James] is already all over Wayne and myself for an update on each of your progress, so following tomorrow [formal meeting taking place on October 15th, 2013] we need to have a solid plan of approach and action".
>
> Frank: "With the amount of focus on this, it really is in everyone's interests to attend, because it will be looked down upon if people don't".

I was increasingly anxious as I hadn't made much progress on the engineering strategy or my participation in other teams. The increasing pressure through formal themes of conversation encouraged a façade of compliance to do just enough, rather than encourage committed participation.

This was reflected when I presented my project update, which included possible benefits that could be achieved rather than actual achievements or progress. Compliance felt like a better option than the honesty shown by Simon at the previous meeting on September 26th, 2013, which resulted in formal conflict.

Increasingly coercive leadership. National Six Sigma meeting. October 15th, 2013.
The changing formal themes were becoming more threatening, by intimating possible harmful consequences for non-compliance. Frank explained that James appreciated the ability of managers who achieved Six Sigma outcomes, but also insinuated negative consequences for those perceived as not capable.

> Frank: "James wants to get real Six Sigma projects going, so he can see immediate progress; actual measures. It's partly about James wanting to see the talent he has and you can take that two ways. That's just the way it is".

Prior to updates from each manager, the manning level initiative was introduced as a high-profile Six Sigma team led by Andrew and sponsored by James, which required participation from all manufacturing managers. The national Six Sigma project updates from each manager indicated minimal progress and as my initiative was similar, I biased my presentation to forecasting future opportunities. I also enquired about meeting Frank separately to agree some realistic timescales and targets for the engineering strategy team. We both agreed to meet at Frank's site to "clarify the next steps" on October 25th, 2013.

In addition, Frank instructed each manufacturing manager to format an operations strategy document for their individual site, which I completed with Henry on October 22nd, 2013. During our conversation, we both recognised this task as solely necessary for formal compliance with the national Six Sigma teams rather than any local benefit. Our critical conversation did not indicate any instance where a local manager might use this sort of document for their daily organising or leading a Six Sigma team.

Consequences of non-compliance. October 25th, 2013.
I met Frank at his site as arranged and agreed the team objective and timescale. He clarified the format for the engineering strategy as shown in this extract.

> Frank: "An engineering strategy in the same way as all the managers are going to have an operations strategy".

The formal consequence regarding non-compliance was brought into sharp focus when I was waiting for Frank and I read an email on my phone from the centrally based Human Resource (HR) department. The message was explicit and terse, regarding Simon leaving the business, "with immediate effect".

I reflected about Jonathon who had also left unexpectedly, which made me anxious that non-compliance could be detrimental for job security. In hindsight, there may have been a range of contributing factors relating to Simon's exclusion that were unknown to me. However, my perception was Simon's honest and open presentation at the formal Six Sigma meeting on September 26th, 2013 was a significant factor in the resulting conflict with Chris and Frank, which resulted in his permanent exclusion from the business.

5.3.2 Progress versus Forecasted Change.

Formal Optimism. Conference call: November 13th, 2013.
A conference call on November 13th, 2013 focused on preparation for a formal review meeting with James on January 9th, 2014 to provide progress updates from the national Six Sigma teams. I had formatted an operations strategy document, but there was no real progress on the engineering strategy. This was partly due to my lack of committed participation and also the difficulty of co-ordinating personnel from different UK sites.

The conference call progressed to assess preparation for the formal review meeting with James (January 9th, 2014). I was surprised that formal comments from Frank were now changing to becoming overly optimistic. Rather than being based on real progress, the optimistic comments seemed to be geared towards convincing James that the national Six Sigma teams were worthwhile. This was shown when I briefed the group on the limited progress of my Six Sigma initiatives, but Frank was complimentary.

> Frank: "Send it (strategy document) out to the others, that's really good".

The manning level Six Sigma team led by Andrew was becoming a greater priority as there was a request for all manufacturing managers to attend a meeting arranged at his site on December 4th, 2013.

Shadow themes outlining a local approach. November 13th, 2013.
William revisited his previous thoughts about the priority of national teams having an adverse effect on local initiatives and daily organising. As our conversation was taking place, William showed his frustration at wanting to progress local initiatives, but feeling unable to do so. The conversation was changing to discuss an alternative approach of prioritising local rather than nationally based initiatives. The agreed preference was

conducting smaller, local Six Sigma initiatives which could attract other managers across the UK to adopt similar practices.

> William: "Why don't they just let us get on with what we're doing?"
>
> Me: "If we did do that and someone said they're doing something brilliant at their plant, would you want to go and actually do something about it? Rather than get told to do it?"
>
> William: "In all honesty Vince, that's exactly what I'd do. Why wouldn't you? But have you seen a project here that would make you get off your chair?" No chance, it's just about impressing James".

It struck me that other managers across the UK would not refuse to adopt a local initiative if it was beneficial, yet we persisted with generic national projects and targets. Adhering to a strict DMAIC methodology across all sites, rather than allowing local self-organising was exemplified by the manning level initiative on December 4th, 2013.

Manning Level Six Sigma Team Meeting. December 4th, 2013.

Andrew chaired the manning level Six Sigma team meeting at his site and the formal conversations were based on the following defined objectives, which were written on a white board.

i. Identify current best practice (manning levels).
ii. Identify opportunities for increased capacity and / or reduced manning.
iii. Identify opportunities for capital investment (to reduce manning).

Each manager had been requested to fill in a standardised spreadsheet illustrating quantitative manning levels for each production machine, following the 'define' and 'measure' DMAIC steps. Wayne (Six Sigma change manager) demonstrated the formal tone when he openly criticised a spreadsheet that Michael had sent previously, as he could not attend the meeting. Michael had outlined that three operators were required on a new machine that had been recently installed.

> Wayne: "No matter what Michael says, there's more than three (operators) on that line. Sometimes they'll run the printer, then stop and run the other end, so it's like running two separate machines when it should be one".

I could not attend a subsequent meeting, so I spoke to William on December 13th, 2013 to ascertain if there were any actions to be addressed. There had been a formal instruction from Wayne that the declared site manning levels now required an additional sign-off by our individual senior managers, which in my case was Henry. This imposed action was justified on the basis of sanctioning the accuracy of our declared manning levels, in preparation for the formal review meeting with James on January 9th, 2014.

The increasing frustration regarding this type of mistrust was shown in a comment by Henry when I reminded him about verifying and signing off the spreadsheet.

Henry: “Yes, I remember. Do what you have to do”.

As Henry signed off my manning level spreadsheet (without checking its accuracy), he raised his eyebrows and shook his head. He was frustrated by being forced to formally comply with a formal Six Sigma action that we both agreed as adding no credible value.

A lack of progress and changing formal priorities. Formal review meeting with James. January 9th, 2014.

The formal meeting didn’t unfold as I expected, partly because James was not in the room for an extended period when he took a phone-call. Managers were keen to present their national Six Sigma team updates during his absence and I took that opportunity!

When James re-joined, each manufacturing manager presented their operations strategy document. Rather than choosing a preferred format, he pointed out that none of the presentations included, “the progress towards the perfect state”. James explained he would address this issue with the general managers.

James: “I’ve got a meeting next week with the general managers, so some of that will be thrashed out”.

Based on the formal themes of conversation at the meeting and informally during breaktimes, it was apparent that there was minimal progress in terms of achieving the Six Sigma forecasted targets. Conversations demonstrated that the manning level initiative was becoming the priority, shown when Frank posed a question to James.

Frank: “If it’s ok, we are going to prioritise specific key driver projects, because we only have a certain amount of resource between us, so manning is the first priority?”

James: “Yes, that’s fine, as long as I’m seeing progress and really prioritise anything with a real cost. Ask yourself, would I invest in it?”

This statement seemed to formally acknowledge that the manning level initiative was the new priority over the national Six Sigma key driver teams. However, unexpected emergent change surfaced at a formal meeting on February 18th, 2014 when Norman was outlining the next agenda item. He declared in fairly strong terms that the new PPO (Product Performance Optimisation) initiative would become the latest Six Sigma priority.

Norman (Central General Manager): “It (PPO) will overwhelm everything”.

Emergent change. Engineering strategy postponed. February 18th, 2014.

I received an email from one of the team members in my engineering strategy initiative whilst I was at the formal review meeting (January 9th, 2014), which outlined his unforeseen and unexpected withdrawal. I explained the position to Frank during a break and I was surprised by his suggestion to formally postpone the initiative immediately.

> Frank: "That's ok Vince, there is a lot going on and there's always more on the way, but this may be one of the projects we have to park because we don't have the resource".

This postponement would have been unthinkable at the start of the national Six Sigma key driver teams. This change unpredictably emerged through changing patterns of relating as the lack of enthusiastic participation at formal meetings allowed it to drift to a lower priority than the manning level and PPO initiatives.

The emergence of PPO (Product Performance Optimisation). Conference call. March 26th, 2014.

On February 19th, 2014, there was an unexpected email outlining a central instruction for each site to nominate personnel to become full-time PPO team facilitators. This new priority was reiterated on the conference call when Frank confirmed my engineering strategy team had been, "parked". He moved onto the visual dashboard team which was still active.

> Frank: "One of the projects that was on the priority list and isn't parked is dashboards, over to you Walter".

The response from Walter was unexpected and amusing. There was a subtle form of non-compliance by reiterating the lack of reliability and the ongoing requests to the IT department.

> Walter: "It may not be parked, but IT might think so! There is an IT request going in every day, they must be sick of me".

Walter explained that a lack of IT reliability was a "credibility" issue for machine operators who were losing confidence in the visual dashboards. This issue wasn't addressed by Frank as he shifted the formal conversation away from the visual dashboard team to PPO becoming the new priority.

> Frank: "As we all know; PPO has gone straight to number one".

Emergent change was occurring as the formal conversations were moving towards cancelling the national Six Sigma teams in favour of a new priority placed on implementing PPO.

5.3.3 Cancellation of the National Six Sigma Teams.

Shadow conversations. March 26th and April 9th, 2014.

I explained the postponement of the majority of the Six Sigma teams in favour of PPO when I met Henry on March 26th, 2014. He expressed his frustration at the re-occurring experience of cancellation and moving onto the next priority.

> Henry: "Says it all really. That's part of the trouble, every project has James associated with it so it's vital and then……. (pause). Come on, the key drivers aren't going to save us and neither is PPO".

Henry's growing frustration was demonstrated on April 9th, 2014 regarding to the adverse impact of the national Six Sigma program on local managers. He explained that local managers wasted valuable time venting their frustration about the adverse effect of the national Six Sigma teams.

> Henry: "We spend about forty-five minutes every day moaning about something being done (imposed national Six Sigma teams). Something must be wrong for that to happen".

Formal meeting. May 15th, 2014

A formal statement from Frank highlighted the cancellation of the national Six Sigma teams, as the priorities changed towards the manning level initiative and PPO, shown in this extract.

> Frank: "(national Six Sigma initiatives) parked, due to the importance of PPO".

A request to the manufacturing managers for updated information for the manning level spreadsheet was requested by Andrew. This was an instruction from James, as he urgently wanted to achieve the forecasted labour cost savings by the stipulated project end date.

> Andrew: "James is expecting this by the middle of June. I will be sending what I have (to James) at that time with a summary report".

Threatening formal pressure. June 11th, 2014.

A planned conference call did not take place, which demonstrated diminishing participation, regardless of the priority placed on the manning level initiative. As a result, Frank sent an email outlining the importance of supplying revised information for Andrew.

> Frank: "The key thing that is potentially outstanding is the manning (level) exercise that Andrew is compiling for return to James at your sites".
>
> Frank added: "The other projects for now are in a hold situation with focus on PPO the biggest priority at the sites".

In addition, his following email comment was all in uppercase text, symbolising the importance and pressure for the manufacturing managers to provide the revised information. It also felt threatening as there was an insinuation of a penalty for non-compliance.

> Frank: "IT WILL ONLY COME BACK TO YOU ON WHY YOU HAVE NOT PROVIDED IT".

On reflection, my increasing frustration and anxiety was based on trying to cope with the excessive use of power, which repeatedly increased the pressure to achieve unrealistic, forecasted Six Sigma targets. There was no attempt to try a new approach such as assessing any local initiatives which may have been beneficial or asking managers for diverse new ideas or opportunities to improve. Instead, the priority seemed to be continuing with coercive practice of reiterating the need to adhere to the Six Sigma

DMAIC steps. This approach had already been shown as counter-productive in previous initiatives as it did not encourage enthusiastic participation or a flexible approach to explore new, diverse opportunities.

Conference Call regarding manning levels. July 9th, 2014.

As the Six Sigma team manager, Andrew's terse formal criticism of the manning level initiative was unexpected. The previous urgent request for spreadsheet data outlined in Frank's email (June 11th, 2014) was supplied by the manufacturing managers to meet the requested deadline from James. Andrew's frustration was shown in his tone of voice when he criticised a lack of progress from James.

> Andrew: "I've sent off the completed project data to James. I've heard absolutely nothing back, which is fine because I'm sure James has got plenty of things on his mind. He's here (Andrew's site) next week, so I'll talk to him then and we can discuss it further at the next manufacturing managers meeting".

The statement seemed to block any further conversation and I felt frustrated, along with others, as the manufacturing managers had urgently supplied the updated data. To compound this frustration, the lack of formal progress from James was reiterated at a meeting on September 26th, 2014. In addition, an unexpected change emerged as the complete priority was shifted away from the manning level initiative towards the implementation of the PPO project.

Formal meeting. September 26th, 2014.

Andrew showed his frustration again, when James had still not responded regarding the updated manning level spreadsheet, which was ready for assessment over two months beforehand (July 9th, 2014).

> Andrew: "I just wanted to take a few minutes on the manning project and I know everyone's got long journey's, but it won't take long. I'll be honest, I'm not sure who's got it or if anyone's using it".

Frank attempted to rebalance Andrew's critical opinion, by putting forward a more optimistic view that the manning level spreadsheet was useful.

> Frank: "I've also sent this to James and that's why my project (capital expenditure at Frank's plant) is being backed. When I speak to David, he is right behind it, so it's probably wrong to think it's not being used".

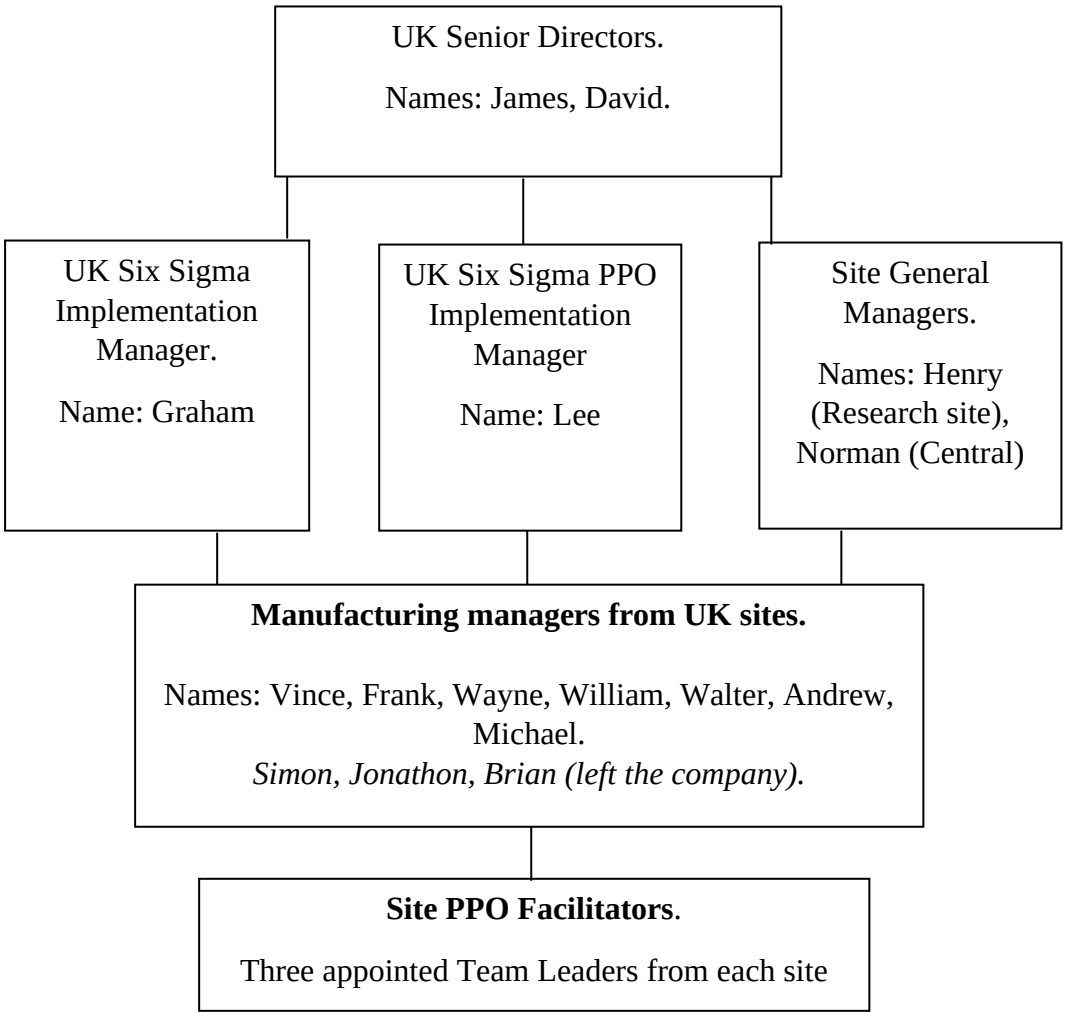
This proved to be the last national Six Sigma team meeting prior to the formal cancellation. No further manning level meetings, quantitative analysis or implementation of best practice took place and shadow themes of conversation continued to be critical of the national Six Sigma initiatives. The formal themes of conversation were changing, with a growing momentum towards implementing the PPO initiative, as discussed in the next section.

5.4 The Product Performance Optimisation (PPO) Program.

PPO was a Six Sigma initiative that was centrally pre-designed as best practice which was ready for concurrent implementation across all UK sites. PPO was a control system based on Six Sigma quantitative targets to reduce the cost of the raw material used to manufacture the finished product, whilst still being fit for purpose.

The management structure changed to include a newly created PPO manager and full-time site facilitators to oversee the implementation. Figure 5.2 illustrates a glossary of participants, where all names have been changed for anonymity.

Figure 5.2. Organisational Chart of PPO Participants.



A bespoke measurement machine (Fit for Purpose, FFP) was installed on every manufacturing line to calculate a quantitative strength of the product by destructively testing a sample immediately after processing. The FFP test indicated whether the product was passed as fit for purpose (green indication) for customer requirements or failed (red).

The intention of PPO was using the cumulatively collected data from the FFP tests to assess the minimum strength of raw material required to achieve a product that was still fit for purpose. justify further raw material reductions. Justifying further raw material reductions would result in lower purchase costs aligned with the Six Sigma targeted financial savings. Manufacturing managers were accountable for achieving the targeted amount of FFP tests conducted. The measures were displayed as league tables to compare the compliance and performance of each site across the UK.

5.4.1 Participating in the PPO Program.

Symbolic relating: "get on the bus". March 12th 2014.
I attended the launch presentation with all UK senior managers and directors on March 12th, 2014 at the head office. The presentation felt intense as James instructed the attendees that the implementation of PPO across the UK would not be compromised.

> James: "Implementation dates cannot and will not be moved. The people in this room are the leaders that can provide the change".

James continued his presentation by regularly emphasising a scripted phrase that was subsequently associated with PPO.

> James: "Everyone has to get on the bus".

Power point slides labelled with the phrase, "get on the bus" were shown as visual symbols, with half of the screen showing the inside of a bus with many passengers. The other half illustrated someone sitting on their own at the bus stop, head in hands due to the disappointment of being left behind. It was further intensified by James with a more threatening tone pointed towards managers who were not committed to the PPO initiative.

> James: "This won't be successful unless we move as one, so you get on the bus, or you don't. This is an industry step change and we can do it if we're all on board".

Shadow conversations. March 13th and 14th, 2014.
I was discussing the PPO presentation in a private conversation with Len (local Finance Manager) the next day at the research site (March 13th, 2014) and he expressed scepticism of achieving the Six Sigma target. This highlighted a recognition and understanding of radical unpredictability and unknown outcomes. At the same time, Len was not confident to raise these views in formal meetings as it contravened the Six Sigma DMAIC methodology of capable managers influencing teams to achieve forecasted targets.

> Len: "You can convince yourself and probably others in the room yesterday (PPO presentation) that if we pull together it can happen. Part of it will, but will it bridge that (financial) gap between plan and actual? Doubtful. To be honest, we don't know, that's the honest truth, but you can't say that".
>
> I asked: "I don't suppose any company says that?"
>
> Len replied: "They can't. Investors want to think the plan will work out (laughs) and in some way, it's made to work".

This exchange illustrated the paradox of organisational life, where the ability to forecast and influence planned outcomes is a fantasy, but senior executives continue to make decisions that support programs such as Six Sigma without critical questioning. Len could recognise unpredictable emergent change occurring in the national Six Sigma initiatives, regardless of the increasing attempts at control through hierarchical power.

> Len: "I mean, is this (PPO) the real priority now? Or the other things like the Six Sigma drivers or whatever it is. They all say: oh, James priority is this or David is sponsoring that, but honestly what does it matter? How much can they shout, make people focus, pressure, whatever it is. It might not happen".

"Sacrificial lamb". Formal meeting. September 26th, 2014.

The formal agenda for the manufacturing managers meeting prioritised PPO as shown by a comment from Frank on September 15th, 2014.

> Frank: "James and David have asked that our agenda be dominated with PPO as the number one subject matter".

The formal pressure was continuing to increase, which resulted in intimidating and threatening use of excessive power, shown in communication from Frank. He reiterated the need to formally comply, or face harmful consequences for job security.

> Frank: "As an operations community, we don't want to be holding it or seen to be holding it back (PPO). My worry is there could easily be a sacrificial lamb for this".

I was immediately concerned and annoyed at such an extreme threat regarding anyone becoming a "sacrificial lamb".

> I asked: "We all know we have to get on with it, but that's a bit strong, isn't it?"
>
> Frank: "I don't know mate, but we don't want to give anyone the chance".

This iteration reflected changing formal interaction which escalated from the initial PPO slogan, "get on the bus" which was used at the launch. This coercive style of management practice gave a strong indication to other Six Sigma leaders that it was formally acceptable to reinforce the importance of PPO in this way. It was becoming more transparent that the only option was compliance, rather than suggesting any new diverse

ways of trying to improve the initiative. For example, the physical testing of the product on the FFP equipment required manual input and the lost time adversely affected production efficiencies. There could have been exploration into fully automating this process by enquiring with personnel at various sites. However, the coercive emphasis on compliance took precedence, so there were no requests for new ideas or improvements.

Repetitive formal communication. A natural end to the empirical material. September 29th, 2014.

Senior personnel reinforced the "get on the bus" message on a regular basis and it became a well-known formal phrase symbolising the uncompromising attitude regarding compliance. Direct instructions from senior directors were becoming prevalent over local decision making, shown in an email from David on September 29th, 2014.

The planned preventative maintenance (PPM) slots, including calibration for FFP tests were historically carried out at a time decided by the discretion of local managers. This provided a degree of flexibility to ensure the PPM was conducted, but at a suitable time which did not adversely affect customer supply. This local autonomy was immediately changed by David's instruction that fixed timeslots should be followed at all UK sites.

> David: "These [fixed PPM time] slots have to be seen as more important than your most important customer".

The national instruction meant adhering to the specifically allocated time of starting the PPM, even if customers incurred late or incomplete deliveries as a result. There were debates at local planning meetings about the practicality of this instruction, but the formal instructions were perceived as non-negotiable. Therefore, the unpredictable emergent outcome was total compliance, regardless of the adverse consequences for customers.

Formal themes reinforcing PPO as best practice were becoming repetitive, which brought this aspect of the research to a natural end. This development allowed a shift towards using my time for interpreting my empirical material. My framework was used for paying attention to the changing patterns of relating, to gain initial insights from my experience.

5.5 Paying Attention to the Changing Patterns of Relating.

My initial interpretations focused on how emergent change occurs through changing patterns of relating, guided by the following research question.

> "How do the outcomes of the planned program of change initiatives emerge through changing patterns of relating within the Six Sigma teams?"

The national Six Sigma program provided insights into emergent change regarding team dynamics which resulted in multiple cancellations. The appointment of new Six Sigma leaders illustrated increasing attempts at management influence of teams to achieve

forecasted targets. However, my research uncovers unpredictable emergent change through changing interaction, including escalating shadow conversations and a façade of formal compliance.

Senior personnel would not have logically implemented a national Six Sigma program with any pre-conception of cancellation, which demonstrates that emergent change must be unpredictable and uncontrollable. The significant time, resource, energy and cost associated with the cancellation of the national Six Sigma teams demonstrate that these outcomes could not have been predicted beforehand.

Paying attention to the changing patterns of interaction through my interpretative framework was introduced in chapter two, section 2.4.4. The initial insights provide interpretations of emergent change through changing interaction, which contribute to the overall discussion of findings in chapter eight and section 8.5.

5.5.1 The Quality of Participation.

Informal conversations reflected frustration regarding the amount of formally imposed national Six Sigma teams which adversely affected local priorities. The formal support to slow down the key driver initiatives was agreed between Henry and James but there was no practical impact in changing course. As a consequence, iterations of critical shadow conversations had an impact through the diminishing desire to participate in the national Six Sigma teams.

The impact was demonstrated by participants just doing enough to comply, even if they felt under pressure from formal instructions to adhere to the Six Sigma DMAIC steps. Changing formal interaction escalated to coercive instructions to enforce formal participation, but this was counter-productive. The outcome was a façade of compliance which contrasted with the intention of committed participation in Six Sigma meetings.

Formally raising diverse opinions didn't feel like a realistic option, given the examples of harmful consequences regarding job security. The only viable option was coping through complying with the Six Sigma DMAIC methodology, but this lack of flexibility reduced creative participation at formal meetings which led to multiple cancellations.

Changing shadow themes of conversation reflected the adverse effect of the national Six Sigma teams on local day-to-day organising. This is shown by Henry's comment, which described a practical change in local interaction and the associated wasted time.

> Henry: "We (locally) spend about forty-five minutes every day moaning about something being done (nationally imposed teams). Something must be wrong for that to happen".

The tangible impact of the critical shadow themes of conversation regarding the national teams developed into a shared understanding amongst splintered groups of trusted

colleagues of undermining initiatives rather than participating enthusiastically at formal meetings. The increasingly passionate and critical shadow conversations contradicted the Six Sigma literature espousing consensual teamwork to achieve shared objectives (Gutiérrez Gutiérrez *et al*, 2009).

The reality of the changing interaction demonstrated the complex difficulties in maintaining buoyant team dynamics suggested by Martinez Leon *et al* (2012). There was a distinct divide between formal compliance and shadow themes of conversation. The lack of committed participation at formal meetings stifled the exploration of new ideas. Although results cannot be predicted, enthusiastic participation at formal meetings would have contributed to emergent change which would have been more beneficial than the actual cancellations.

5.5.2 The Quality of Conversational Life.

From the start of the national Six Sigma teams, there were instances of formal conversations blocking further interaction. For example, Frank and Wayne did not respond to all queries put forward by participants, shown when concerns were raised about the IT reliability of the visual dashboards. Participants started to recognise the changing patterns of relating, where it was only worth raising issues which were aligned with the opinions of Frank and Wayne. Frank shifted the formal conversation to PPO and this provides part of a deeper, overall interpretation in chapter eight, section 8.5.

Formally blocking conversations continued and the emergent impact was creating an environment where participants learned to comply by not critically questioning any Six Sigma initiatives. The negative impact was shown by participants doing just enough to comply with the formal DMAIC steps and meeting agenda, rather than challenging forecasted targets to prompt alternative ideas for improvement. Ongoing change emerged from the escalation of critical shadow themes, which contrasted with a decline in conversations in formal Six Sigma meetings. These critical shadow themes became more widespread, which could have created an opportunity if they were shared honestly and openly with team members in formal meetings.

Attempting to create encouraging conditions for self-organising teams by formally enquiring about new ideas for improvement would have promoted further conversations. In contrast, formal conversations were stifled or ‘stuck’ and premature decisions were made to move to the next Six Sigma priority. Formal conversations started to legitimise the postponement of several national teams, by promoting the significance and importance of the manning level initiative and then subsequently, the PPO project.

The priority of PPO was legitimised by reinforcing iterations of formal conversational themes that ultimately led to cancelling the national Six Sigma teams. Symbolic relating was used to infer committed participation as the only option, shown by the phrase, “get on the bus” and visually presenting the consequences of being left behind. However, more

severe consequences were intimated by increasingly coercive formal comments such as, “you either get on the bus or you don’t”. Participants understood this approach as a mutually exclusive choice of compliance or face harmful consequences for job security.

This promoted repetitive formal themes of conversation which did not encourage any flexibility in deviating from the prescribed Six Sigma DMAIC steps. Although the shadow themes of conversation contrasted sharply, there was a shared understanding amongst trusted colleagues that those views could not be raised legitimately. The changing formal conversations reinforced compliance with the national and PPO forecasted targets. Stuck patterns of relating resulted in no challenging conversations or creative contributions, which signalled the empirical material coming to a natural end.

5.5.3 The Quality of Holding Anxiety.

Increasing anxiety amongst participants was shown at formal meetings through a lack of lively, engaged or challenging conversations. A contributing factor was the increasingly coercive formal instructions to meet urgent deadlines for prescribed actions that didn’t always add value. Formal communication induced anxiety due to fears of harmful consequences, resulting in an atmosphere of formal compliance and a lack of challenging ideas. Avoiding any possibility of conflict was based on a façade of compliance, which reduced progress in the initiatives and this impact culminated in multiple cancellations.

Holding anxiety, or putting tension to one side whilst creatively participating was extremely difficult as formal interaction was becoming more threatening. Iterations of formal themes continued to escalate into more transparent, threatening and coercive conversations, such as suggesting there could be a “sacrificial lamb” for non-compliance. Diverse opinions at formal meetings resulted in conflict and the detrimental consequences was shown by managers leaving the business on a voluntary, or involuntary basis.

Formal conversations did not encourage any flexibility to change direction from the DMAIC steps, but continued to reinforce the belief that managers could influence teams to achieving forecasted targets. The empirical material highlighted that outcomes were unpredictable and emergent, so applying greater pressure only increased anxiety of participants and promoted formal compliance rather than committed effort.

When the national initiatives did not meet the forecasted targets, anxiety was shown by Six Sigma leaders and senior personnel, shown in Andrew’s frustrated comments. Anxiety amongst senior personnel prompted premature decisions which were taken with the intention of protecting their identity as strong, rational leaders. Premature cancellations demonstrated the inability of managers to slow down on decision making which may have allowed change to unfold (Chia, 2014). This topic is revisited in chapter eight, section 8.5, to uncover further interpretations for emergent change and management practice.

5.5.4 The Quality of Diversity.

The use of power by senior personnel was shown by imposing manufacturing managers to lead of Six Sigma teams rather than engage in consultations to encourage volunteers. The changing formal themes of conversation became more pronounced at Six Sigma meetings, which felt confrontational. Attempts at diverse conversation were blocked by consensus amongst an included group, consisting of Frank, Wayne and senior directors.

The shadow conversational themes showed a mistrust in the close relationship between the included senior personnel and splintered groups of participants developed an understanding of their exclusion. This understanding was based on formal insinuations of harmful consequences such as assessing whether people were “in the right roles”, which intimated possible permanent exclusion. This coercive approach hindered diverse opinions in formal meetings which was demonstrated by compliance.

A developing feeling of insecurity grew from shadow themes of conversations relating to Simon leaving the business “with immediate effect”. This scenario reinforced a shared belief that harmful consequences for job security would occur if diverse views led to formal conflict. Therefore, diverse views and opinions diminished, particularly after Simon’s departure.

Increasingly coercive formal communication contributed to the perception amongst participants that their job security was at risk if diverse or challenging views were aired. The outcome was shifting the team members interest into participating in shadow conversations and a shared understanding that the best way to cope was through a façade of formal compliance. The resulting lack of diversity during formal interaction contributed to the emergence of multiple cancellations, which is revisited in chapter eight for further interpretation in section 8.5.

5.5.5 Unpredictability and Paradox.

The manning level initiative appeared to be in control through a straightforward process of implementing best practice symbolised by the Six Sigma DMAIC steps, meetings, agendas and monitoring through quantitative spreadsheets to compare each site. However, controlling the process transpired to be much more complex, due to the bespoke nature of different equipment and skills at each site.

Trying to implement a best practice solution through the DMAIC steps did not control the process as the generic targets was too simplistic and the forecasted outcome did not come to fruition. Understanding this complexity was not fully grasped by exploring alternative opportunities at formal meetings. Therefore, managers complied with formal instructions rather than exploring what might be beneficial locally, which could have attracted other sites to adopt similar practices for performance improvement.

Increasing pressure through urgent formal requests for manning level information at each site had an unpredictable outcome when James did not consider the responses in good time. Andrew was regarded as included in a senior group of personnel, but this unexpected development contributed to his diminishing enthusiasm in formal meetings. He started to openly express his critical views and further iterations contributed to emergent change as participants also became frustrated with the lack of engagement from James. The unpredictable outcome was diminishing formal participation and cancellation.

The paradox of organisational life was demonstrated by contrasting formal and shadow themes occurring at the same time and insights were gained through reflexively interpreting the empirical material. It was enlightening to learn from my experience of shadow conversations with colleagues such as Len. Radical unpredictability was acknowledged by Len when we were discussing whether PPO would meet the financial targets. He commented, "to be honest, we don't know, that's the honest truth, but you can't say that", meaning it would not be wise to express his views formally. In the same exchange, Len alluded to forecasted Six Sigma outcomes being unpredictable and uncontrollable, regardless of pressure or hierarchy, which is aligned with the theory of complex responsive processes of relating (Stacey, 2011). This topic is revisited as part of a discussion of findings in chapter eight and further interpretation in section 8.5.

5.6 Summary and Next Steps.

The lack of success regarding planned organisational change was disappointing and frustrating as my career has been steeped in Six Sigma and the benefits of teamwork did not come to fruition. My feelings at the time were shown when I recorded my immediate thoughts on November 7th, 2014. A brief extract demonstrated my frustration that the next initiative (PPO) was shifted into becoming the new priority through formal communication. This management practice legitimised the cancellation of the national Six Sigma teams, regardless of the wasted time, energy and cost.

> "The overall emphasis I think is one of almost everything taking a lower priority than PPO. No action on the Six Sigma key driver projects and less talk anyway. Example being the engineering strategy that I was allotted, which was cancelled along with all the other projects including the operations strategy, which faded away, confined to the dustbin!"

My experience demonstrated Six Sigma teams complying with initial conditions based on the DMAIC methodology, which restricted discussions amongst participants and the possibility for exploring new, unplanned ideas. The increasing use of formal language indicating the ability of managers to predict and control resulted in demotivating team members, which prompted increasingly critical shadow themes and decreasing participation. Managers became increasingly disengaged and didn't go 'the extra mile',

which contributed to a decline in progress and the cancellation of multiple Six Sigma teams. Rather than forming an unquestionable and critical conclusion from the cancellations of Output 30 and the national teams, I was inspired to gain further insights from ongoing research. This facilitated learning that uncovered possibilities for managers to embrace unpredictable emergent change and work creatively with Six Sigma organisational change programs.

I continued with research during my everyday organising as a practising manager into a specific Six Sigma team evaluating transport suppliers, as outlined in chapter six. Although there was friction and conflict which culminated with the exclusion of an external Six Sigma team leader, the diversity he brought to the team contributed to emergent, but beneficial change. The local group of managers explored new and unplanned avenues for emergent change during everyday organising.

In addition, an encouraging experience of leading a Six Sigma team outlined in chapter seven illuminates the possibility for adopting alternative management practices through learning to acknowledge the future as unknown. Flexible initial conditions enabled self-organising through ongoing interactions as a priority over strictly adhering to the Six Sigma DMAIC steps.

Chapter 6. A Local Six Sigma Team Initiative.

The previous investigations into Six Sigma teams focused on the key research area of emergent organisational change, while this chapter provides a basis for studying management practice. I interpret the changing patterns of relating between practising managers through paying attention to a local Six Sigma team. The objective was choosing the optimum financial tender from three potential sub-contract transport suppliers regarding the delivery of finished goods to customers.

I gained insights into how the changing interaction contributed to a new transport supplier emerging, which contrasted with following the Six Sigma DMAIC steps and making a rational decision based on a quantitative analysis. Encouraging free-flowing interaction and flexibility to pursue unplanned opportunities for further emergent change allowed the original Six Sigma financial target to be exceeded. My interpretative framework provides useful insights into management practice, which contributes to a further discussion of findings over the course of the whole research period in chapter eight.

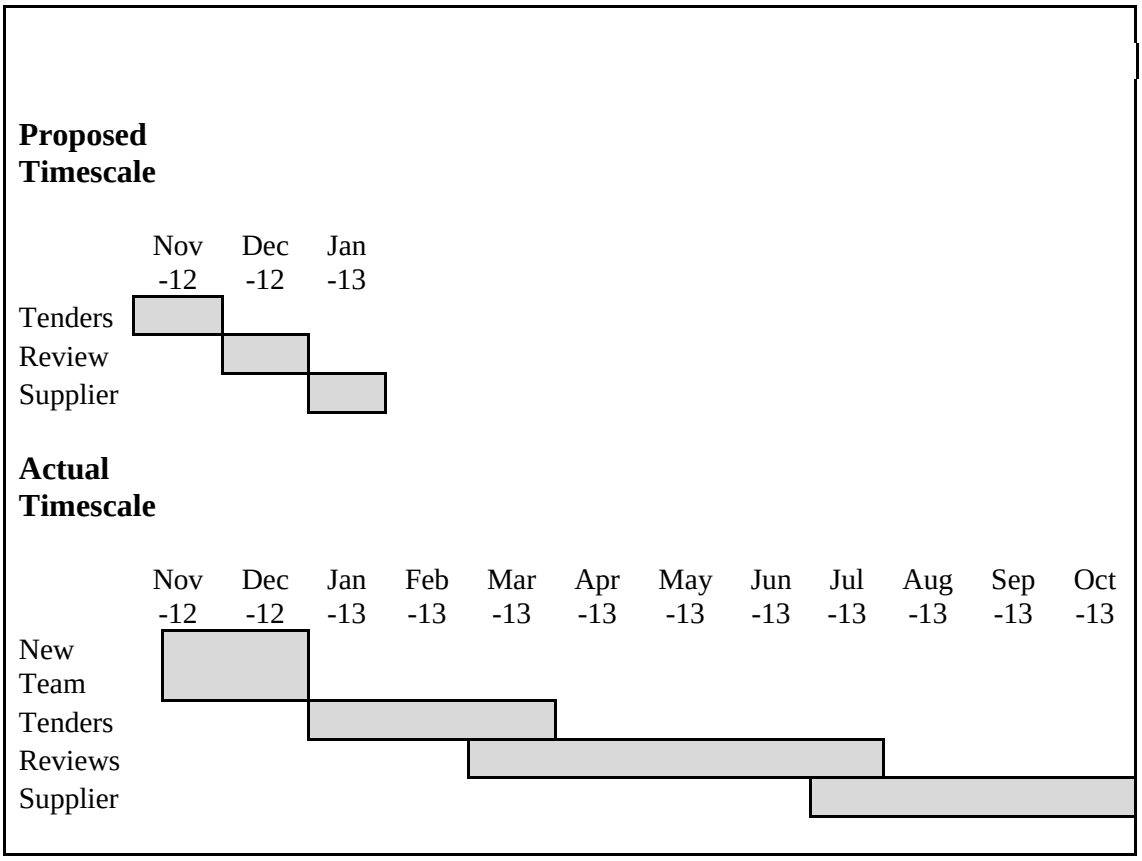
6.1 Researching the Local Six Sigma Team.

The local Six Sigma team was led by a central procurement manager with the objective of analysing financial tenders in order to choose a sub-contract transport supplier. This chapter provides insights into formal meetings, but also a greater depth of interpreting the changing patterns of relating during daily organising. Investigating the contribution of changing interaction to the emergence of a new transport supplier is guided by the following research question.

> "How does the changing patterns of relating between a local group of managers contribute to an emergent outcome during self-organising in a specific Six Sigma team?"

The objective of the Six Sigma team seemed relatively straightforward as it involved a quantitative financial analysis of choosing the optimum transport supplier as best practice over a twelve-week program. The planned time table was equally divided between the tender analysis, supplier review meetings and making a decision to implement the chosen transport supplier. Figure 6.1 illustrates a comparison of the proposed twelve-week Six Sigma program with the actual and unexpected timescale of approximately one year.

Figure 6.1. Comparison of Proposed versus Actual Timescale.



The chapter outlines the background and context of evaluating the transport suppliers, the formation of the Six Sigma team and empirical material, including the imposed inclusion of a central procurement manager (Harry). As the team progressed into conducting transport supplier review meetings the interactions between local managers contributed to unpredictable, emergent change, demonstrated by Harry's exclusion. The resulting changing patterns of relating represented shifting perceptions and emerging ideas from the local managers, which culminated in implementing a new, unexpected transport supplier.

I pay attention to management practice through my interpretative framework adapted from Stacey (2011) described in chapter two (section 2.4.4) and listed below.

- The quality of participation.
- The quality of conversational life.
- The quality of holding anxiety.
- The quality of diversity.
- Unpredictability and paradox.

Stacey's (2011) pairings of legitimate / shadow, formal / informal and conscious / unconscious conversational themes outlined in chapter two (table 2.2) was also used to interpret my experience in the local Six Sigma team.

6.1.1 Team Participants and Transport Suppliers.

Figure 6.2 illustrates the team participants and potential transport suppliers (TS1, TS2 and TS3). Over a million pounds was spent annually to deliver finished products to customers, with TS1 in place as the principle sub-contract transport supplier at the start of the project. TS3 undertook a smaller proportion of the transport as a sub-contractor to TS1, to cope with any increased volumes during peak delivery times. On average, thirty heavy goods vehicles (HGV) were used daily, so a reliable transport supplier was crucial for a high level of customer service.

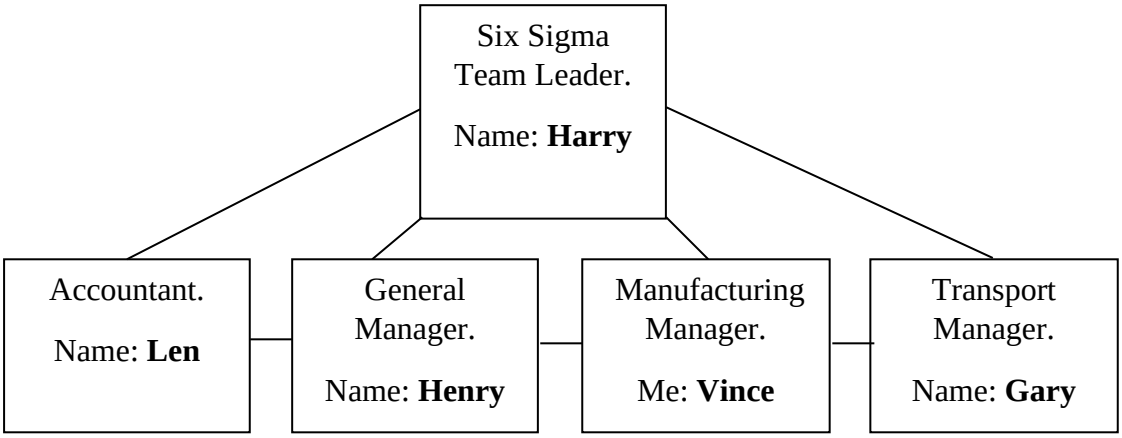
Customer service was measured by OTIF % (On Time and In Full deliveries) with a target of ninety five percent success rate. Although TS1 demonstrated reasonably high OTIF measures around ninety percent they did not consistently achieve the target. Most customer service issues were caused by TS1 having an insufficient number of vehicles at peak times, so there was a reliance on TS3 being able to assist.

Transport became a reduced proportion of TS1's income compared to their growing commercial vehicle sales sector. This factor was perceived by the local team as a risk to customer service as TS1 were unlikely to invest sufficiently to maintain, or increase their transport vehicle fleet size. A review was commenced as transport costs were rising and there were several concerning issues relating to TS1, which are listed below.

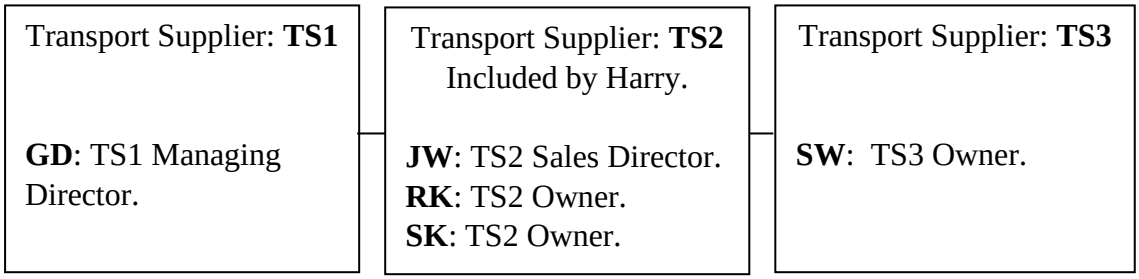
i. TS1 operated a 'core fleet' of vehicles (HGV's) which meant a pre-determined number of HGV's were paid for throughout the year, whether they were used or not, with the aim of maximising OTIF. Most transport suppliers operated on a 'general fleet' principle of only paying for vehicles that were actually used, due to the associated cost benefits.
ii. TS3 were not under contract, so they were free to prioritise transport opportunities from alternative customers even if this approach adversely affected the site OTIF performance. This practice had previously occurred and the shortage of vehicles resulted in TS1 not being able to meet an acceptable level of customer service.
iii. Any historical contracts with TS1 had expired, highlighting a customer service risk as they could withdraw from the site without notice.

The Six Sigma team commenced and an instruction from head office was given to include a centrally based procurement manager (Harry) to lead the team. From the start of his inclusion, he unilaterally included another transport supplier in the process (TS2). The Six Sigma team and potential suppliers are illustrated in Figure 6.2, which also serves as a glossary of participants, where all names have been changed for anonymity.

Figure 6.2. The Local Six Sigma Team and Potential Transport Suppliers.



Potential Transport Suppliers.



6.2 Transport Supplier Tenders.

Although there was compliance at the formal meetings relating to Harry's inclusion as the team leader, critical shadow conversations occurred immediately amongst local managers. The feeling of Harry being imposed on the group was summarised by Henry on January 28th, 2013.

> Henry: "(Harry is) being thrust on us, so we have to make the best of it".

A greater level of detail was expressed on January 30th, 2013, showing Henry's reluctance to cause formal conflict by challenging Harry's inclusion. At the same time, Henry did not want his inclusion to influence a decision that was not acceptable to the local managers.

> Me: "I suppose it's difficult, because it seems that Harry is in charge of the negotiations and you're in charge of the decision?"
>
> Henry: "That's right, normally it would be a total local negotiation, but I'm a bit embarrassed about how it's conducted. We (local team) should be fully negotiating but a decision will be made on what's best for the site, not Harry".

A mistrust of Harry's expertise began to develop from his unilateral inclusion of TS2 in the evaluation process, who were unknown to the local managers. Harry utilised a Six Sigma financial spreadsheet for quantitative measurement which highlighted the current system of operating a core fleet of vehicles with TS1 as cheaper than a general fleet. This cost model did not make sense to local managers based on their previous transport experience, shown in my shadow conversation with Gary on February 1st, 2013.

> Gary: "I've had a call from Harry" (Gary rolled his eyes).
>
> Me: "Oh, sounds like good news then!" (both laughed).
>
> Gary: "It's unbelievable, he reckons it's not cheaper".
>
> Me: "What, the quote?"
>
> Gary: "No, no, general versus core. He reckons it's not cheaper with all general. I can't see it myself (shaking his head), but hey ho".

On the basis of his financial assessment, Harry recommended TS2 as his chosen transport supplier, which he expressed via email on February 8th, 2013. There was a formal tone of imposed instruction, rather than an invitation for further discussion.

> "All,
>
> In implementing this solution, TS2 is the recommended source. JW (Sales Director) of TS2 has written to me on a separate mail and appreciates the fact that the business is not totally sure of the size of the fleet we need, he is indicating that if successful they would work with us to arrive at a solution that would be beneficial to both parties over time.
>
> I hope that the enclosed and the supporting data to follow is sufficient to all us to confirm the strategy and we can look to move to the next phase.
>
> Please let me know if you need any more information.
>
> Kind regards,
>
> Harry".

I initially assumed that the local team would comply with Harry's recommendation. However, unexpected shadow conversations emerged which grew into a consensus to formally reject his proposal at a meeting on February 15th, 2013. Henry and I were making coffee and he explained his deliberate action of not replying to Harry's initial email (February 8th, 2013). He did not trust Harry's financial assessment as it didn't feel realistic to the other local managers and it was conducted over a relatively short period of three months of historical costs.

Henry: “I’m in no rush to get an exact decision, but like us all, I want the right decision for the site. I’ve asked Len to put aside some time next week to really go through those numbers”.

By not replying to Harry’s email, Henry kept all options open which enabled further conversations with the local managers. Building a coalition demonstrated the local managers ‘ganging up’ against Harry which strengthened Henry’s position to reject the proposal. During an informal conversation on February 21st, 2013, Henry told me how he responded when Harry proposed TS2 as the preferred choice based on his financial analysis.

Henry: “No Harry, I want the costs looked at over a longer period”.

‘Ganging up’ against Harry was demonstrated when Gary conducted a local financial analysis which uncovered Harry’s Six Sigma financial model as incorrect. A general fleet of vehicles was subsequently confirmed as the cheapest option rather Harry’s calculation of a core fleet. This was significant in influencing Henry’s decision to reject Harry’s proposal at the formal meeting, which is shown in this extract from February 19th, 2013.

Gary: “Yes, (big smile and shaking his head) I knew there was something wrong. Even Harry was unsure to be fair, but the calculations weren’t up to it, (laughs) so what I was working on came good. That’s why the meeting was late, because I asked Harry to go through a few things and show me some stuff, but it went on and on. General is cheaper than core”.

The shadow conversational themes between local managers contributed to a growing mistrust in Harry’s assumed expertise as a procurement specialist. The changing patterns of relating were starting to show signs of his exclusion.

6.2.1 Signs of Participant Exclusion.

Harry’s recommendation of TS2 did not take any previous team dynamics or working relationships with the current suppliers into account, such as Gary’s positive experience with the personnel from TS3. Gary often shared as his preference for TS3 amongst local managers, which demonstrated the trust and loyal relationship between them (January 23rd, 2013).

Gary: “They’ll (TS3) bend over backwards for you”.

A shadow conversation with Henry on February 21st, 2013 highlighted the local perception that Harry was prioritising the central objective of financial savings over the local importance placed on customer service.

Henry: “Did Gary tell you what Harry said about signing up?” (to TS2).

Me: “Briefly, yes”.

> Henry: "Yes, he must be under pressure to do something. I mean the meeting time went back and back because he was working on it and then he asks if we're going to go ahead now the cost savings have been revised. We'd just need to fill in the bottom of the spread-sheet, so he could then go and tell his boss that he's made these synergy savings".

A dislocation was becoming apparent between the central Six Sigma objective of meeting prescribed financial savings and the local prioritisation on ensuring a high level of customer service. This was reflected in the changing patterns of relating, which demonstrated the complexity of management practice and relationships which are not considered as part of Six Sigma training (QCG, 2003).

For example, the Six Sigma priority of conducting one standardised financial analysis, which in this case should have been Harry was contravened as concurrent evaluations were undertaken by Len and Gary. Undermining Harry's financial expertise was also shown when Henry requested further analysis. He also shared that he wanted Len's input, which contributed to justifying Harry's exclusion (February 21st, 2013).

> Henry: "I could see his (Harry) face drop thinking, bloody hell, here we go, more work! (both laughed) but we need to get it right. Even then I'd get him (nodded towards Len's office) to go through it with a fine-tooth comb".

6.2.2 Transport Supplier Exclusion.

The Six Sigma team expected each supplier to promote their tender as the optimum solution, but TS1 unexpectedly informed Harry on March 6th, 2013 of a price increase.

> "All, apologises, but just returned from holiday to find that my analysis support had be laid low for the past 2 weeks, which has meant that the "General Haulage" review is only being consolidated this week.
>
> I am endeavouring to process this asap as I had a call from GD (TS1 Director) yesterday, asking for an update, (which I provided) but he also indicated that as such they were looking to include a management charge on the Core Fleet and review the general haulage rates as well.
>
> GD advised that they now wished to implement this increase effectively from 1st April. I advised him that this would have to be discussed and agreed with the business BEFORE any increases would be accepted.
>
> Your thoughts appreciated, kind regards
>
> Harry".

Although there was no explicit explanation, the local group assumed that TS1's unexpected announcement was a signal of excluding themselves to prioritise their vehicle

sales sector of the business. Gary confirmed on March 7th, 2013 that TS1 were becoming less committed to providing enough vehicles to ensure an acceptable level of customer service, which gave substance to his preference for TS3.

> Gary: "This week, they (TS1) can only supply three (extra vehicles), because they say someone's on holiday. During a tender, they must be mad, but TS3 are covering it, no problem".

The tender process progressed into face-to-face review meetings with the potential transport suppliers. This phase illuminated further iterations of conversations between the local group and the suppliers which contributed to unexpected, emergent change.

6.3 Transport Supplier Review Meetings.

The local preference for TS3 emanated from Gary's positive relationship with their personnel, which he regularly expressed to the other managers. This conflicted with Harry's preference for TS2, predominantly based on their proposals of lower costs, which had the potential to meet the Six Sigma financial target. Emergent change resulted in Harry's exclusion and this section provides insights into how this came about.

6.3.1 Exclusion: A Local Six Sigma Team.

Harry sustained an ankle injury, so a scheduled transport meeting was postponed. The rearranged formal meeting occurred without me (attending a PhD course as part of my study) and Henry shared his views of Harry's exclusion with me when I returned on April 25th, 2013.

> Henry: "Catching up Vince? How did the course go?"
>
> After we discussed the course Henry said: "We had the (rearranged) meeting with Harry about the transport tenders".
>
> Me: "Oh, good, how did it go?"
>
> Henry: "Alright actually. I think Harry's resigned to the fact that he needs to just hand it over to us now. We've got all the information we're going to need from him, so it's over to us".
>
> Me: "Maybe it was getting a bit mixed up about who was going to be taking the decision?"
>
> Henry: "I think it was a bit of a mess actually, but we've finally got our own decision to make. I've told him that we can take it on from here".

It was intimated that Harry would continue to have an input into the transport supplier evaluation although he was no longer part of the Six Sigma team. Henry's compromise demonstrated his empathy with Harry's central responsibility to achieve the forecasted financial savings (May 13th, 2013).

> Henry: "Harry needs to show the savings to impress his bosses and to be honest, I'm not too precious about that as long as we (local site) get something".

Henry clarified Harry's exclusion at a formal review meeting with TS2 on May 1st, 2013 and I felt JW's responses were slightly manufactured. It felt like he was over emphasising his agreement by using his conversational skills to build a closer relationship with the local Six Sigma team.

> Henry: "Thanks for coming up (JW), because it's a bit of a journey for a short meeting, but talking about Harry and cutting to the chase, we're going to be taking it from here, we'll be rowing our own canoe from here on in if you like".
>
> JW: "Good Henry, that clears a lot of things up for me".
>
> Henry: "To be honest, it's difficult getting hold of him and this process has dragged on, it's a bit embarrassing and really, it's our business (nodded around the local management team) not Harry's. In a nice way, if you know what I mean".
>
> JW: "I'll be honest, I'm pleased, it's no reflection on Harry. I've told him and sent messages, some you might or might not have seen, but we were always interested in this business".
>
> Henry: "Well, you are in contention with others and it does look attractive, but we need to go through an exercise of costing the last twelve months, with data we can provide, but just as a general fleet".

The meeting exhibited a buoyant, constructive atmosphere, shown by Henry describing the financial proposal from TS2 as attractive. Harry's exclusion meant the local group were now conducting formal Six Sigma meetings directly with the transport suppliers. The consequence was local managers placing an emphasis on customer service in addition to satisfying the central requirements to meet the forecasted Six Sigma savings.

6.3.2 Changing Perceptions and Emerging Ideas.

GD intimated TS1's intention to withdraw from the process at a formal Six Sigma review meeting on May 8th, 2013, when it was outlined that TS2 was approximately nine percent cheaper. Rather than TS1 attempting to compete, GD changed the conversations towards a discussion about notice periods. Allied to the lack of energy or buoyant, free-flowing conversations, it was becoming clear to the local managers that TS1 were withdrawing from the process.

GD: “To be honest, we guessed this would be the situation, so we need to go away and reflect on it, so do you have any preferred time-scales?”

In contrast, conversations were changing to a more positive perception of TS2, shown on a visit to their premises on May 14th, 2013. Enthusiastic conversations and new ideas contributed to investigating opportunities for increased customer service and further cost savings. Gary demonstrated a growing trust in SK, shown during an informal discussion.

Gary: “You know he’d (SK) tell you how it really is and you know he would sort it out for you as well”.

Me: “Makes you think it’s all about how and what people say in these situations, you know, it’s about people’s relationships don’t you reckon?”

Gary: “It is, that’s my job at the end of the day, just talking to all and sundry about what’s the best way to get the product from A to B. Thank-fully, it usually works out. I’m more impressed than I thought I would be. It really means something to SK so you’ve got to have some confidence in him”.

Ideas emerged from diverse opinions, shown by Len’s participation, where he brought a freshness that promoted further conversations. An example at a review meeting on May 1st, 2013 highlighted his proposal to use the site as a parking hub for TS2’s other, external customers. This approach would enable TS2 to use the base to transport goods for other local businesses. The response from JW was very positive as this approach would negate the costs for these vehicles travelling the significant distance back to their (TS2) premises.

Len: “Yes, I suppose you could use this (site) as a bit of a hub, with wagons parked here, the yard’s big enough for it to be useful to you? You’re the experts at this stuff, so if you run the numbers, I guess we’ll find out”.

JW: “Yes, that’s something that I’m sure would work out”.

Len’s idea was accepted with a caveat of limiting the number of external vehicles on site, in order to mitigate any risk to the site’s customer service levels. This facilitated a further cost reduction from TS2 and Henry suggested the cost difference was, “too significant to ignore” (May 7th, 2013). Conversations changed the local perception towards TS2 becoming a genuine contender shown by Gary’s description of their financial proposition.

Gary: “It’s not to be sniffed at”.

6.4 Changing to the New Transport Supplier.

An agreement was unexpectedly reached with TS2 to become the new transport supplier on July 5th, 2013, even though TS3 had strong backing going into the last phase of

discussions. Unexpected outcomes occurred up to the last formal meeting as managers participated in changing conversations that contributed to an unpredictable, but beneficial emergent outcome of exceeding the originally forecasted financial savings. Unpredictable emergent change that is not addressed in Six Sigma programs was also shown by the intended completion date of January 2013 actually going beyond November 12th, 2013.

6.4.1 Unpredictable Emergent Change.

Conversations started to reflect a growing recognition that the TS2 tender was becoming the most favourable in terms of costs and vehicle fleet size. However, Gary reiterated his preference based on his trusting relationship with TS3 at a meeting on June 28th, 2013.

> Gary: "Well, I have been impressed and more than I thought when we visited TS2, but I suppose I know TS3 better. We will be TS3's biggest customer, so I know they'll bend over backwards to make it work and we're not the biggest for TS2".
>
> Len: "That has got pros and cons though, hasn't it?"
>
> Gary: "Yes, true, it has, but I think SW's (TS3 owner) passion comes through and we're already dealing with them, we get on well and I know we could carry that on. Maybe a bit unfair on TS2 but I don't really know what they'll do. I would go for TS3 to be honest, but that's just me".

I empathised with Gary's preference as he was the only team member who directly organised transport. However, his local preference was becoming difficult to justify centrally as there was a cost difference between the two suppliers. I felt anxious that Gary wouldn't be fully committed to TS2 if they were chosen without his approval, but this seemed to be alleviated by Henry when he facilitated an unexpected opportunity for TS3 on July 1st, 2013.

During the meeting of local managers, Len pointed out TS3 as difficult to justify, based on the financial advantage from TS2's proposal and he stimulated the participants into voting for their preferences. Although I empathised with Gary voting for TS3, I felt compelled to agree with Len's experience with financial appraisals and chose TS2. Len encouraged Henry to vote and he unexpectedly allowed ongoing negotiations with TS3.

> Len: "There you go Henry it's two to one, so you've got a casting vote! (laughter). No, I think we'd all be relatively comfortable with either, but somewhere along the line, we will have to justify it".
>
> Henry: "Why don't we get TS3 in for one final push? I'm not around much this week but get them in and tell them we need to justify the price difference, so if they match TS2, we can do a deal right there".

After arranging a meeting with TS3 for July 2nd, 2013, I was very confident that SW would facilitate an acceptable compromise and they would become the new transport

supplier. I thought SW would agree to the relatively small cost reduction in order to grasp the opportunity and conclude the process. However, my assumption of a rational management decision based on the Six Sigma financial data did not come to fruition.

> Len: "I suppose to put it in context SW, we will be moving the business and you're aware that we've got a couple of credible suppliers. That's good news for you obviously, but there are commercial factors that are enough to cause issues".
>
> SW: "Ok Len".
>
> Len: "It's obviously a divisional initiative along with a lot of others we've all heard of and the finances will be given some focus, I'm sure. All things being equal on that front, Gary would more than recommend you. So, to cut to the chase, is there anything you can do, in terms of the cost difference, because we would be shaking hands on a deal. That's right Vince? Is there anything you would like to add?"
>
> Me: "I think you've pretty well covered it, Len. Just to re-iterate, we are at decision time, or very close to it. The general view is we would like to work with you".
>
> SW: "Good, thanks Vince".
>
> Me: "There are a couple of reservations and you will have heard them before. One is ensuring customer service, we cannot work around any short comings on that front (vehicles), but you have said you would grow into our business, which is acceptable. The second is the price, which has to be justified divisionally and it is very close to being ok, but no doubt would be a talking point if we accepted the more expensive option".
>
> SW: "I understand, yes".
>
> Me: "It amounts to less than two percent on a pretty big contract and I think we've shown our commitment by extending the term to four years. So, if we can bridge that gap somehow, I think we're all confident we can speak to Henry and get the nod, without approaching the other haulier, as long as the contract hangs together. We do want to work together, but at least being face-to-face, gives us transparency on where we stand and get it sorted one way or another. Today hopefully".

Gary was encouraging participation by suggesting how TS3 could increase vehicle usage by collecting goods on return trips and thus reduce costs, but I sensed a lack of enthusiasm from SW. His unexpected statement near the end of the meeting did not offer any agreement or alternative suggestions, which reflected the ebbing atmosphere of the meeting.

> SW: "Yes, I understand, we'll have to see what we can do".

I responded with a feeling of frustration, which on reflection, was evident in my tone of voice.

> Me: “Just to be clear, we’re not asking you to be the cheapest, we’re asking you to just match the others and you have the chance to get the contract. We’re not going to be making extra savings on this, we are genuinely trying to work with you”.

Len gave a very strong hint that TS3 would not have to fully meet a two percent saving. He insinuated that any attempt to reduce costs to get closer to TS2 would be viewed positively and this development would be sufficient to justify central approval.

> Len: “It needs to be closer, so if it’s even seen as nearer equal, so read that how you like, but hopefully something will work out”.

SW stated his understanding, but he did not clearly demonstrate his intention to compromise. I still assumed he would have a meeting with his co-owners back at their site and agree to the token cost reduction. Any amount of compromise in reducing costs, no matter how small would have resulted in TS3 gaining the contract. To my surprise, Gary phoned me later that day to say SW had unexpectedly rejected the opportunity.

> Gary: “He’s (SW) spoken to the other owners and they can’t do anything on the rates, which is a shame really”.
>
> Me: “Yes, that is a shame Gary, not even part way there?”
>
> Gary: “No, he said he couldn’t stretch it anymore. I’ve asked him to put it in writing, just an email or something, just so everyone’s aware”.
>
> Me: “Ok Gary as you said, it’s a shame and it’s a big investment for TS3, so maybe it’s just too much. At least we’re all clear, perhaps you can dig out JW’s (TS2) number for me and I’ll give him a ring tomorrow”.

On reflection, SW’s rejection changed my management practice through an emotional effect rather than any influence from my Six Sigma training of rational decisions based on data. I felt TS3 were fortunate to be offered a preferential opportunity based on Gary’s positive working relationship and I was very frustrated that SW didn’t grasp it. On reflection, I now realise that I adopted a strong bias for TS2 shown by personally wanting to phone JW as soon as possible and there were no further discussions with SW (TS3).

6.4.2 Implementing the New Transport Supplier.

I arranged a formal Six Sigma team review with TS2 on July 5th, 2013 which resulted in their emergence as the new transport supplier. I had no intention of sharing any information prior to the meeting, but this occurred unexpectedly. By pure chance I was the only member of the local team waiting with JW for the meeting to start, as the other

participants such as RK and SK (TS2) were still making their way to the room. There was no deliberate ploy but I alluded to JW that a further, small cost reduction would satisfy the local and central objectives, which would facilitate an agreement.

> Me: "It's not massive changes in costs and we'll be on the brink of a decision, so is that something you can do?"
>
> JW replied (smiling): "There's always something we can do Vince, you know me. We can do something around the fringes I'm sure".

Reflecting on the interaction, JW's smile at the time symbolised his confidence prior to the formal meeting. He felt assured from gaining prior information that a token cost decrease would be sufficient to gain the transport contract. The free-flowing conversations at the meeting exhibited a strong sense of optimism that an agreement would be reached. An example came from Len, who quantified a requirement to reduce costs by one percent, but balancing this with the benefit for TS2 of extra pallet deliveries.

There was a natural pause in conversation, so a break was suggested by JW to discuss the latest proposal privately with RK and SK. There was a shared feeling amongst the local managers that the break was an informal prompt to conclude an agreement amongst the TS3 personnel. When they returned, JW clarified their consensus and commitment.

> JW: "Thanks gents, yes, that definitely helps (extra pallet deliveries), so the question is, does that do it?"

Len looked towards me and I nodded in agreement and Gary subsequently did the same.

> Len: "Yes, I think so, in principle anyway, as long as there's nothing unexpected, we're all happy with that".
>
> JW: "Good".
>
> RK: "Thanks, that's good".
>
> JW: "Thanks, we're delighted to win the business and as I said to you Vince, this is the starting point. We work with loyal customers and we don't lose them, because we work together, and we see you in the same light to be honest".

We all shook hands, congratulated each other and agreed to work together over the coming months to switch over from TS1. Central approval was also gained quickly, without any formal meetings as the forecasted Six Sigma financial savings had been surpassed by a significant margin.

The early stages of TS2 becoming the new transport supplier demonstrated positive relationships. This was shown during conversations at a formal review meeting during the first week of implementation on October 7th, 2013.

Gary: “To be honest, what they’ve done this week is pretty good, I’ve been impressed”.

Gary’s changing perception of TS2 was demonstrated informally on October 24th, 2013.

Me: “So would you say we’ve chosen the right one?”

Gary: “I do yes; to be honest with you I was a bit ‘hmm’ to say the least (rocking his hand indicating he was unsure). I wasn’t overly convinced but they are doing everything they said and more. I’ve said before, but it is a breath of fresh air”.

The last journal entry on November 12th, 2013 confirmed the positive implementation of TS2 through informal comments from Ben, who organised the daily vehicle loadings. I would not have predicted such a positive reaction at the start of the tender process, when there was a strong preference for working with TS3.

Me: “TS2 doing their bit then?”

Ben: “Crikey yes, they’re doing everything they can, really helpful”.

The daily organising continued to develop in the same positive manner. The benefit of this particular Six Sigma initiative was demonstrated by customer service OTIF increasing above ninety-five percent and exceeding the original cost savings target.

6.5 Paying Attention to the Changing Patterns of Relating.

I focused attention on the changing patterns of relating through my interpretative framework adapted from Stacey (2011) and outlined in chapter two, section 2.4.4. The following sections outline the initial insights from the changing interaction amongst managers which contributed to emergent change. Chapter eight discusses further findings from the empirical material presented in chapters four to seven and deeper interpretations are illuminated in section 8.5.

6.5.1 The Quality of Participation.

The local managers felt Harry’s participation was centrally imposed without their input, shown by Henry’s comment that he was, “thrust on us”. The local managers coped by complying with Harry’s imposed inclusion, shown by no overt conflict in formal meetings. In contrast, shadow conversations had a tangible impact in undermining his expertise, such as local managers prompting an additional financial analysis. This escalated to covertly conducting a concurrent financial assessment and the local managers undermined Harry’s identity as a procurement expert.

Power relations were shown to be more complex and fluid than the legitimate portrayal of Harry as the team leader, shown in shadow conversations reinforcing local coalition building. Henry used his experience by not relying on hierarchical seniority to dispute Harry's inclusion, as he preferred to keep options open by taking no formal action. However, Henry's critical shadow conversations strengthened local alliances and this 'ganging up' contributed to Harry's exclusion.

6.5.2 The Quality of Conversational Life.

Stacey (2011) suggests free-flowing conversation contributes to facilitating further possibilities for emergent change, so this analysis of management practice highlights my awareness to themes that may facilitate fluid continuation or block it.

Gary was not a senior manager, so his position might suggest a corresponding lack of power. However, his influence came from conversing about his expertise of organising transport and his positive relationship with TS3, which initially influenced a group preference for them. Gary blocked conversations relating to TS2, by continually reinforcing his preference for TS3. This often took the form of expressing his positive experience of daily organising with TS3, which encouraged a feeling of trust and certainty towards SW being able to ensure a high level of customer service.

However, Gary's perception started to change during face-to-face meetings with SK where buoyant, free-flowing conversations started to shift perceptions towards TS2 being genuinely considered. Len encouraged conversations regarding TS2, by pointing out the commercial benefits and instigating a vote amongst the local managers regarding their preference. Wise management practice was shown by Henry's awareness of facilitating conditions to encourage ongoing conversations in preference to following the Six Sigma DMAIC steps. His flexible management practice kept options open rather than concluding the process, by providing TS3 with an unexpected, preferential opportunity to become the transport supplier.

On reflection, Henry promoted conversations to try to achieve multiple objectives of justifying savings centrally, but also a high level of local customer service. Henry did not block conversation, or create conflict, which facilitated an opportunity for TS3 to satisfy the financial savings. TS3 unexpectedly rejected this opportunity and my emotional reaction led me to stop all conversations with them and prioritise TS2. My actual management practice contrasted with rational decision making through the Six Sigma DMAIC steps and this initial insight provided a basis for further interpretation in chapter eight and section 8.5.

Changing conversational themes continued to unfold up to and including the last formal contract meeting on July 5th, 2013 which facilitated an agreement. JW used his conversational skills as a manager throughout the process to encourage developing relationships with the local managers. In conjunction with SK, JW contributed

significantly in changing conversations which started to change the perception of local managers towards TS2 becoming a realistic contender to become the new supplier. An example was shown when he confidentially used the knowledge gained prior to the final meeting to facilitate a cost reduction, which built further trust with the local managers and enabled TS2 to emerge as the new supplier.

6.5.3 The Quality of Holding Anxiety.

Local managers experienced anxiety when Harry was imposed on the local team, due to his perceived seniority and expectations of meeting Six Sigma targets. The local group's mistrust of Harry contributed to conflict through covertly building a local alliance through shadow themes of conversation, which led to his exclusion.

Gary's positive experience of organising with TS3 seemed to engender a very strong trusting relationship and sense of personal loyalty to SW, which seemed to over-ride rational decision making based on Six Sigma data. Gary was more anxious about TS2 as he trusted TS3, shown by comments such as, "they'll bend over backwards for you". His confidence in TS3 promoted a feeling of certainty in terms of customer service, which built an initial consensus amongst the local managers. This relationship with trusted colleagues from TS3 facilitated a preferential opportunity for them to satisfy the financial savings, which they unexpectedly rejected.

However, the lack of trust in TS2 started to change as the local managers explored their tender through changing negotiations. JW used his conversational skills in trying to reduce anxiety by instilling a feeling of certainty and trust amongst the group. He focused on finding solutions together, such as ensuring the tender was financially attractive but also his belief in long-term working relationships and improving local customer service.

A significant factor in reducing anxiety associated with working with an unknown supplier was the face-to-face meetings which developed stronger relationships with TS2's personnel. This was demonstrated by Gary's greater level of trust in JW and SK developing as a result of ongoing negotiations, which continued to build into a positive working relationship.

Another example of coping with anxiety was illustrated when Gary continued to conduct a financial analysis comparing core fleet versus general. This was in spite of his initial uncertainty which stemmed from his lack of previous experience, shown in a comment to me on February 12th, 2013.

> Gary: "I can't work it out and I can't say I've done this stuff before".

I tried to assist Gary in coping with his anxiety through encouraging ongoing conversations. The trust between us facilitated Gary continuing his analysis, which was integral in uncovering Harry's error. These changing conversations are interpreted in

further detail as part of the findings in chapter eight and deeper interpretations in section 8.5.

> Me: “Gary, don’t fret about it. None of us are experts apart from Harry and sometimes he’s not convinced himself (both laugh)! We’ll have to feel our way and find out more information. Henry is relaxed about the time-scale, so there’s no massive panic, just find out what you can, but I’m not expecting you to come to the meeting knowing everything”.
>
> Gary: “Ok thanks, that’s put my mind at rest a bit”.
>
> Me: “No worries Gary, we’ll get there”.

I also reflected on my own anxiety during a period when the group were uncertain of satisfying local customer service and central financial savings. The iterations of conversations started to reflect the increasing significance of the cost difference between TS3 an TS2. The emergence of TS2 as a possible contender made me anxious when envisaging the possibility that Gary would reduce his level of commitment to working with them as they were not his preferred supplier.

However, Henry coped with anxiety by not making a premature decision to award TS2 the contract, in favour of allowing TS3 another opportunity to improve their offer. A decisive vote at that stage may have drawn the process to a conclusion that would have only fuelled Gary’s anxiety in feeling forced to work with an unknown supplier (TS2).

By facilitating ongoing negotiations, Henry allowed SW (TS3) a further opportunity. SW’s unexpected rejection to gain the contract facilitated the emergence of TS2, rather than any rational decisions based on Six Sigma data being made by the local team. The changing patterns of relating contributed to Gary and the local managers increasing their trust and confidence in TS2, which ratified their emergence as the new transport supplier.

6.5.4 The Quality of Diversity.

On reflection, Harry introduced diverse opinions to the team, such as unilaterally including TS2 and this approach stimulated new iterations of shadow conversations. In contrast, the local managers exhibited too much consensus in only considering the existing transport suppliers (TS1 and TS3). The process of TS2 emerging was not through a rational management practice of making decisions based on Six Sigma data. TS2 only emerged from iterations of changing interaction which was founded on Harry’s diverse idea of including them in the tender process.

Harry’s initial recommendation of TS2 was communicated as an instruction based on power rather than through a team consensus and in addition, confidence was eroded when his financial data proved to be incorrect. The local managers built an alliance through escalating shadow conversations, which prompted a rejection and continued iterations

culminated in his exclusion. The subsequent legitimate conversations justified Harry's exclusion, shown by a comment from JW (TS2) as he was building stronger relationships with local managers.

> JW: "It was sort of like dealing through a consultant, so I never know what you (local managers) got to see".

Len's diversity brought a freshness to the local management team, providing novel ideas such as proposing the research site premises as a hub for extra TS2 vehicles, which contributed to further cost savings. This highlights the strength of encouraging diversity in Six Sigma teams and although it was not recognised at the time, the benefits of the diversity which Harry brought to the group are discussed in chapter eight, in conjunction with further interpretations in section 8.5. Beneficial interpretations include raising diverse ideas to challenge the restrictive nature of a forecasted target, which in this case encouraged ongoing negotiations that resulted in surpassing the expected savings.

6.5.5 Unpredictability and Paradox.

Harry's initial, rational choice of TS2 based on Six Sigma data did not come to fruition at that time. In contrast, the empirical material illuminates a much more complex process of management practice through changing patterns of relating between managers, which led to rejecting his proposal. Further, complex and changing iterations up until the last meeting culminated with changing preferences from TS3 towards the unpredictable emergence of TS2 as the new transport supplier. Another unexpected outcome was the local team using the original Six Sigma financial target as a trigger for ongoing negotiations rather than accepting the project being concluded, which facilitated additional cost savings.

The feeling of being in control but also out of control at the same time was a theme that ran through my whole experience. The local managers knew instinctively what to do during ongoing interaction, but could not predict the unexpected outcomes throughout the changing process. The paradox of organisational life was illustrated when the Six Sigma team thought the process was in control by assuming TS3 would be confirmed as the new supplier. However, SW unexpectedly rejected the opportunity and as a result of unfolding conversations, TS2 eventually emerged as the new transport supplier.

These initial insights form part of a deeper interpretation over the course of the whole research period, which is outlined in chapter eight and section 8.5. An integral part of conducting research as an involved manager (Introna, 1997) was learning from my experience, which is addressed in the following chapter.

Chapter 7. Learning from my Experience.

This chapter focuses on learning from my experience of management practice and the wider scope of relationships from living life as enquiry (Marshall, 1999), which is guided by the following research question.

> "What have I learned as a practising manager through lived experience of a Six Sigma change program?"

Introna (1997) advocates a shift from understanding a rational manager making decisions to influence planned change, as espoused in my Six Sigma training (QCG, 2003). The intention is learning from my lived experience, or the "being of being", regarding what I actually do as an involved manager as unpredictable change emerges (Introna 1997, p.12). Research uncovers insights from my reflexive thoughts regarding the impact of the Six Sigma change program on local managers, my own encouraging participation in leading a team and my experience amongst family and friends.

7.1 Researching as a Practising Manager.

Learning from my experience of complying with national Six Sigma teams as a priority over local initiatives prompted me to think differently about my own future as a manager. This is shown in a reflexive thought from my empirical material on March 3rd, 2016, when I questioned my own identity regarding a lack of autonomy as a practising manager:

> "What am I here for?"

This feeling emanated from the inability to deviate from the national Six Sigma program, which adversely affected local initiatives and daily organising. The significant impact of participating in the national program on local managers is summarised below, along with leading a Six Sigma team and the changing nature of experiencing life, which are revisited in further detail in sections 7.2, 7.3 and 7.4 respectively.

i. **The Impact of the National Six Sigma Program on Local Managers (section 7.2).**
   My interpretation highlighted feelings of frustration from managers who felt they had to comply with the national Six Sigma program as a preference over local organising. I uncover feelings of exclusion and anxiety, which had a tangible impact shown by managers leaving the business on a voluntary or involuntary basis. The intention is learning from my experience and gain insights in order to attempt to prevent valued managers leaving the business in the future.

ii. **An Encouraging Experience of Leading a Six Sigma Team (section 7.3).**
This section discusses a particularly encouraging part of the research through my experience of leading a Six Sigma team, where I felt engaged and enthusiastic. The outcome didn't match the forecasted target, but the constructive team engagement can encourage other practitioners to creatively contribute to Six Sigma teams whilst accepting unknown outcomes. The team demonstrated committed engagement through members who were volunteers, which contrasted with the imposed participation in the national teams. An environment of trust was evident, where diverse opinions were welcomed as new opportunities to explore novel solutions through challenging, but collaborative teamwork.

iii. **The Changing Nature of Experiencing Life (section 7.4).**
I had previously considered interactions inside and outside work as separate, but reflexive iterations of the hermeneutic circle provided new insights. For example, learning from interaction with family and friends provided profound insights for adopting a practice of 'putting things in perspective'. This changed my outlook to a more humble and empathetic style of management practice. I reflect on all experiences whether they occur inside or outside work, because all conversations can have an impact on management practice.

7.2 The Impact of the National Six Sigma Program on Local Managers.

My recorded reflexive iterations indicated growing frustration and anxiety that the national Six Sigma program took priority over local initiatives, even when the benefits were negligible. Managers felt senior personnel were not listening to their concerns about the adverse effect on their local organising. The adverse impact on local initiatives was demonstrated during a shadow conversation with William (section 5.3.1), where he suggested the local manufacturing efficiencies could decrease.

> William: "Being serious for a minute, you have to be careful not to lose what you've got at the (local) plant".

Local managers felt they had no choice but to comply with the national Six Sigma initiatives and their anxiety was shared in shadow themes of conversation. As a consequence of the national Six Sigma program, an increasing number of personnel left the business, which had previously been exceptionally rare. The main local participants are listed below and names have been changed for anonymity.

Briony: Customer Service Manager.

Henrietta: Office Manager.

Henry: General Manager.

Len: Accountant.

Linda: Internal Sales Manager.

7.2.1 Anxiety and Compliance.

My first reflective thought uncovered my anxiety, based on a shadow conversation with Henry (November 4th, 2014). He shared his view that senior directors were not impressed with the commitment of local managers. Henry was becoming more fearful of decisions being taken by centrally based senior personnel to change the structure, based on the negative perception of local managers not achieving Six Sigma targets. My anxiety was shown by recording my first reflection about the possible consequences for job security.

> My first reflection: It wouldn't surprise me if there was an implemented change, especially with the recent "restructuring announcement" and if they appointed a "dynamic" team. The reason for such a statement is I've always thought that the senior personnel had a very high regard for Henry and this is the first time that I've heard him feel threatened and generally not happy. I have the feeling that he thinks that senior personnel may perceive the (local) management team being in place for a very long time so a structural change may be required. I'll keep recording in the journal and see what happens!"

My second iteration on November 6th, 2014 resulted from an exchange with Len, when the formal phrase, "get on the bus" was mentioned regarding a formal instruction regarding commitment and Len humorously adapted this phrase by saying, "get on the bus or else you'll be under it!". Coercive instructions were becoming more commonplace, but Len's humour also demonstrated the need to comply, rather than pursue local opportunities which may have been more beneficial.

> My second reflexive iteration: "There is no option but to comply to these divisional requirements. The frustration I think, is from knowing it seems almost pointless to raise issues that might be beneficial to the company (local improvement initiatives), because it won't be considered".

My third iteration on January 30th, 2014 uncovered perceptions of a more sinister nature regarding exclusion due to non-compliance. It felt like there was no alternative from being coerced into complying with national initiatives, even though they weren't meeting prescribed targets. This induced a feeling of frustration as there was no autonomy to explore possibly beneficial local improvements.

> My third reflexive iteration: "At best, it seems "compliance" towards these divisional projects is the only option, to try to prevent further exclusion".

Over time, my reflexive iterations were showing building frustration at a lack of flexibility in the national Six Sigma program, which was not achieving tangible benefits. The strength of Six Sigma in terms of engaging teams to work together in a process of positively exploring new improvement opportunities were not being exploited. In part, this was due to senior personnel sticking to restrictive initial conditions such as strictly adhering to the Six Sigma DMAIC steps and unrealistic targets. My successive reflexive iterations on April 9th, 2015 and July 14th, 2015 reflected a sense of ambivalence.

> My fourth reflexive iteration: "What really surprised me was the lack of implementation of the work that was undertaken as Six Sigma and best practice. It's difficult how anyone could justify that amount of work as a positive influence on improving the business. It's not a negative observation, but there is so much (Six Sigma) and I'm struggling to think of any of it that has been really helpful".

Greater attempts to achieve forecasted outcomes were made through coercive control, rather than trying to encourage new ideas through collaborative teamwork, which is espoused as a pillar of Six Sigma teams (Gutiérrez Gutiérrez *et al*, 2016). The resulting impact was unpredictable emergent change shown in examples of local managers leaving the business.

7.2.2 Local Managers Leaving the Business.

Chapter five outlined examples of manufacturing managers from across the UK sites who subsequently left the business on a voluntary, or involuntary basis. This was also occurring locally, shown by the resignation of a local customer services manager (Briony) who described the Six Sigma program as, "relentless".

A Local Resignation.

Henry informed me on March 2nd, 2016 that Briony had resigned, even though she had not secured another job. He explained that she was feeling overwhelmed with the amount of national Six Sigma initiatives which adversely affected her local organising and the inability to commit enough time to develop her local customer service team. Henry explained that Briony felt she could not undertake local improvements such as staff appraisals, which she considered as important for improving customer service.

> Henry: "She's just fed up with all the change, you know. It (the list of national Six Sigma initiatives) goes on doesn't it".

My first reflection did not draw a direct correlation between the impact of the Six Sigma program and Briony's resignation. However, I interpreted that she must have had a strong desire to leave as she was doing so without securing another job.

> My first reflection: "I think I initially underestimated how these divisional projects are affecting people. I think Henry did everything he possibly could, but it's highlighted the anxiety of these sort of initiatives can have, to the extent of leaving without having another job. It's too simple to say it's a direct causal link, because many more things could be happening to Briony in her own life, but it does seem significant to me, when you consider some of the opinions I have captured in the empirical material".

My second reflexive iteration was based on an informal conversation directly with Briony later that day (March 2nd, 2016) when we stopped to talk. She explained the adverse impact of the national Six Sigma program and her relief at resigning with real conviction.

> Briony: "The change is relentless. No time to concentrate on developing my team, well and myself. [Resigning is] the right thing to do, a weight off my shoulders".

I reflected on Briony's increasing anxiety regarding the negative impact on her identity as a manager. She gave me the impression that she could no longer maintain her own autonomy in prioritising local organising with her team.

> My second reflexive iteration: "I think Briony has feelings of anxiety that she is not achieving what she feels is her identity in her role. It feels like it's being continually disrupted by initiatives (her quote of "relentless" change) that she has no control over prioritising and it's got to the point where she cannot influence it. After all that, it seems a shame that someone like Briony feels the need to leave rather than try to change the circumstances".

Critical shadow themes were escalating in becoming more openly shared, shown by an extract from an informal conversation with Henrietta, who was Briony's manager.

> Henrietta: "It's all in her leaving letter; it's all what's going on, but not what she thinks is important".

The increasingly coercive style of central management promoting compliance with the national Six Sigma initiatives were apparent when Henrietta added, "there is *NO* choice", emphasising compliance as the only option. My third iteration of reflexive thoughts reflected my feeling that local critical shadow themes were escalating and becoming more openly shared.

> My third reflexive iteration: "The (Briony) resignation seems to have ignited comments and there is a transparent (local) theme of discontent where it seems deeper than ever before. Maybe because it's open about why she is resigning, so it is creating legitimate themes. It's a real shame that Briony wants to leave".

The impact of the increasingly open criticism of the Six Sigma program became apparent approximately a week later as another local resignation occurred. This added to my anxiety and insecurity concerning these changes to the local management team.

Another Local Resignation.

A formal announcement On March 11th, 2016 notified the resignation of an internal sales manager (Linda), who had already left the business at short notice. I talked informally whilst making a coffee with Henrietta, who was a close friend of Linda. An extract from the conversation highlighted a sense of loyalty to the local site, but growing anxiety relating to the adverse impact from the Six Sigma change program.

> Henrietta: "Linda loved the people all in here, but there's the bigger picture now (gesturing with hands in the shape of a circle) and…. I don't know…. that feeling isn't there, with Briony and everything, just of…."

After quite a long pause, to the point where I felt Henrietta wasn't going to say anything, I offered a word that might prompt the conversation to continue, "uneasiness?"

> Henrietta: "Yes, exactly that; what's really happening. I'll really miss her (Linda) because she really gets things done. One of our better people without a shadow of a doubt and Briony as well".

The cohesive local team was changing and Briony and Linda were considered by their peers as high performing managers. They had intentionally left the business in preference to what they viewed as coercive compliance. In addition, a sales manager left at short notice, through an alleged enforced redundancy which prompted me to reflect further on my own future.

Thinking about my Changing Future.

On March 3rd, 2016 I had an informal conversation about the changing management team with Henry as we walked around the site. An extract highlighted his opinion that the centralised initiatives would continue as a priority over local organising, regardless of managers leaving the business. Henry commented that the ultimate consequence for local managers was a mutually exclusive choice of formally complying with the Six Sigma program or leave.

> Me: "Maybe it's more looking at your own identity, you know, what your role is? I think you mentioned the other day that things are being "done *to* you". Do you think people get to the stage of saying, "whatever, let's do what you (central Six Sigma leaders) think instead of what I think?" Most might just settle for what's happening. It's a hell of a step to say I'm leaving but maybe some of the better people say that" (Briony).

> Henry: “It’s not good no, but it’s not going to change. I mean that will just go on, so maybe that’s the choice” [comply or leave].

My fourth reflexive iteration (March 3rd, 2016) demonstrated my changing thoughts regarding my identity as a useful, autonomous, local manager. I felt I was complying with imposed Six Sigma change initiatives, whilst feeling there was no other option, regardless of my opinion or anxiety. This led me to think differently about management practice and my own future.

> My fourth reflexive iteration: “On reflection, things (imposed Six Sigma initiatives) being done *to* you is a very important thing, which may challenge one’s own identity and therefore feeling of worth as an involved manager. It does make you question, what am I here for? Not to think or be diverse, but to implement what I’m told is one best way? It feels that way and the themes I pick up from the journal in terms of shadow themes of personal opinions about changing are much less positive than the legitimate themes”.

My fifth reflexive iteration on June 22nd, 2016 uncovered my growing belief that local managers could not challenge the national Six Sigma DMAIC steps or forecasted targets with alternative proposals. This reinforced the perception of a mutually exclusive choice of comply or leave.

> My fifth reflexive iteration: “There were some strong themes of exclusion that were evident and almost the feeling that it’s now formally necessary to not disagree on the basis that you will be excluded. Even to the point of losing your job”.

7.2.3 Further Reflections.

My experience amongst a group of local managers provided insights into a changing local organisation, shown through the impact of the national Six Sigma program. Shadow themes of conversation illustrated anxiety, as managers felt any diverse views could be formally perceived as non-compliance, which could have harmful consequences for job security.

Managers actively left the business as they felt frustrated and powerless to adapt the national Six Sigma initiatives or prioritise local improvements. The conversations and my resulting reflexive iterations highlighted the lack of empowerment and autonomy felt by local managers, which undermined their identity. A changing local organisation was indicated by several local managers leaving the business with negative connotations, which I did not experience prior to the implementation of the national Six Sigma program.

Although the changing patterns of relating exhibited growing frustration, uncertainty and anxiety, local managers felt they had no option but to comply with the national Six Sigma program. This feeling was reinforced by the increasingly coercive formal language used

by senior personnel and Six Sigma leaders. This approach resulted in declining engagement with national Six Sigma initiatives from local managers.

Questioning my own identity as a useful manager was a significant shift in my thinking as a result of hermeneutic understanding (Introna, 1997). In contrast, further reflections stimulated the interpretation of an enjoyable and constructive experience of leading a Six Sigma team initiative, which is outlined in the next section. My experience contributed to further reflection regarding my management practice as new possibilities emerged for working constructively and creatively with Six Sigma teams in the future.

7.3 An Encouraging Experience of Leading a Six Sigma Team.

I was unexpectedly asked to lead a Six Sigma initiative to design and manufacture a new product for a major retailer. My constructive experience was highlighted by recording my feelings of committed, enthusiastic engagement whilst forming a team. I reflected and learned from my previous experience and encouraged voluntary participation in a trusting environment, where diverse opinions were used to explore new opportunities.

Insights for other practitioners include my experience of enthusiastic participation during the retailer team, which contrasted with adhering to the espoused Six Sigma DMAIC steps. This experience contributed to redesigning the Six Sigma DMAIC linear steps through a new DMAIR methodology, illustrated in chapter nine (Figure 9.2). This flexible management practice encouraged exploration into unplanned opportunities for emergent change. The new DMAIR model negates the restrictive Six Sigma structure by embracing unpredictable emergent change by adapting and redefining forecasted targets.

7.3.1 Forming the Team.

The main participants are listed below and names have been changed for anonymity. Other personnel such as machine operators participated, but addressing research into the Six Sigma team did not require their individual identification.

David: Senior Director.

Frank: Manufacturing Manager (Six Sigma Change Manager outlined in chapter five).

Fred: Senior Director.

James: Senior Director.

Henry: General Manager.

Peter: National Sales Manager.

William: Manufacturing Manager.

The objective was assessing the design and manufacture of a new product for a well-known, high street retailer, to enable efficient deliveries of on-line shopping. I received an email from Henry on December 15th, 2014, outlining a request from senior directors for my involvement in leading the Six Sigma team.

> Henry: "Your name was mentioned (which is good!) so you will receive a call, in due course. I don't know what is involved at the moment, but it will be good exposure for you".

The tone of the message contrasted with the Six Sigma national program outlined in chapter five where manufacturing managers were nominated and imposed to lead teams. I felt valued and included, shown by an email from Fred.

> Fred: "Hi Peter. Please make direct contact with Vince. I've talked to David and Henry; both think he would be ideal".

After a conference call with Peter to outline the project, I arranged a visit to another site to assess their equipment and manufacturing capability. I asked a range of personnel with relevant experience if they wanted to take part in the retailer initiative. At this stage, the objective was focused on the possible designs and manufacturing processes, but I recorded my thoughts on December 18th, 2014. The extract highlighted my feeling of enthusiasm in being asked to contribute, which contrasted with imposed participation in national Six Sigma teams.

> First reflective thought: "I later confirmed the 7th January 2015 at 10am for the visit to [site name] and at this stage I am quite invigorated about taking part and writing a report on the findings / possible solutions for the project. I've already had conversations with [personnel names] about getting them involved, which they're happy to do.
>
> It has a different feel (at this stage anyway!) to the normal "best practice" Six Sigma projects that are imposed and I wonder why if it's just a feeling of "flattery" that senior personnel had mentioned me as a possible person to help on it. I think it was more that I was "asked" and recognised, rather than being instructed that I had to do it and it also feels more like prospective future development work with a customer, rather than purely machine efficiencies. We'll see how it all goes".

7.3.2 Site Visits to assess Manufacturing Capability.

I enjoyed the first site visit on January 7th, 2015 where Frank (Six Sigma change manager) was the manufacturing manager. The team participants who had volunteered contributed

enthusiastically during team interaction, which Stacey (2011) describes as free-flowing and this expression reflected the buoyant atmosphere of the meeting.

However, I was concerned at the start of the meeting when Frank asked me a pointed question which seemed quite confrontational. He quoted the site name where I worked (and myself by association) to ask why I was nominated to lead the Six Sigma team, instead of him.

> Frank: "Why did [my site name] get to look at this project?"

There was a feeling of possible confrontation, which I downplayed by focusing on continuing conversations.

> Me: "It was just one of those things, I think Henry was talking to someone and said I could help to get some information".

This approach assisted in diluting any initial feeling of conflict and allowed the conversations to continue, shown in my optimistic reflection after the meeting.

> Second reflexive iteration: "Overall, the visit was very positive, and Frank was very helpful in organising the personnel and putting a real effort into the factory tour".

I organised a meeting at another site on January 16th, 2015, assisted by my good relationship with William who was the manufacturing manager. There were attendees from a wide range of disciplines such as design, sales, quality assurance and machine operators. Buoyant collaboration was evident as the participants discussed customer requirements, possible designs and manufacturing techniques. The diverse range of expertise seemed to prompt conversations amongst participants as they were genuinely interested in their different experiences. The ongoing interaction stimulated the exploration of new ideas for alternative manufacturing processes, particularly from machine operators.

Cumulative learning from the participants with a variety of different skills enabled me to compile a project report, which I could not have achieved individually as I had limited experience in this particular field. The report demonstrated the benefit of an engaged and collaborative Six Sigma team who challenged each other but also shared diverse ideas within a broad scope of exceeding the retailer requirements rather than merely meet them.

7.3.3 Project Report.

I sent the preliminary project report on January 23rd, 2015 to Henry and Peter based on the previous meetings. My third reflexive iteration highlighted the time constraints due to the retailer timescales, which made me feel the report was of a lower standard than I desired. However, I also felt that meeting the retailer timescale was only possible due to the input from a wide range of personnel, which represented a collaborative team effort.

> Third reflexive iteration: "I was determined to send off a report today (as it's already later than I would've wanted) but understood that the standard might not be what I would aim for. Getting "something" today was needed to give Peter the information, because the retailer meetings were planned for end of January. Sent off the report at the end of the day! Not really that impressive, but it was quite interesting to write, so something I wouldn't mind getting involved in again".

Later that evening, I received emails from Henry and Peter respectively, which were complimentary and made me feel even more motivated and enthusiastic.

> Henry: "Good detailed report Vince. Well done". Peter: "I agree, really thorough and well laid out – thanks…."

Peter also forwarded an extensive email to a director and an extract from the start of the message highlighted the positive tone.

> Peter: "Attached is a great report from Vince giving an overview".

I replied, thanking Henry and Peter and recorded my fourth reflexive iteration, which demonstrated my growing enthusiasm.

> Fourth reflexive iteration: "I'm pleased that the report seems to be of some use and it does give me a feeling of enthusiasm, especially when you're asked to contribute, rather than being coerced. Let's see if the situation develops or not!"

7.3.4 Manufacturing Trials.

After a long spell with no feedback from the retailer or senior personnel, the Six Sigma initiative resurfaced with a request to conduct manufacturing trials as the title in my personal journal illustrates.

> "Wednesday 29th, April 2015 – [Retailer Name] Project – maybe back on the horizon for trial product!"

A conference call with the Six Sigma team was arranged with Peter for the following day. This consisted of an enthusiastic discussion about possible specifications and it felt like all the participants were working together through challenging, but collaborative teamwork. Some of the designs were considered unacceptable by the retailer as they wanted a more complex product and they also required deliveries within a very short timescale. The new designs added to the complexity of the manufacturing process, which made a proposed customer delivery prior to May 11th, 2015 extremely challenging.

My fifth reflexive iteration illustrated my initial frustration, but also my own emerging experience of reflecting and realising at the time that neat, defined, Six Sigma forecasts did not come to fruition. Reflection allowed me to adapt my management practice based on Six Sigma training (QCG, 2003) of trying to control outcomes to a more flexible

approach of accepting unknown emergent change. Rather than taking premature decisions based on the DMAIC steps, I discussed the changing requirements with all team members and trusted them to adapt to the ongoing changes requested by the retailer.

> Fifth reflexive iteration: "Not only the increased complexity of the product surprised me, but also the very short timescales, to get the trial product made. We have had months go by without any communication about the project and now it needs to happen by next week!
>
> What if there's a design problem? Or the tooling specification is incorrect? Or machine breakdown? Anything that could cause a delivery "failure" because of the short timescale and manufacturing will be perceived to have "failed" the process!
>
> It shows how "deadlines" are not the neat, scoped project outline on a Gantt chart, but more of the degree of urgency needed to satisfy the customer. Will be interesting to see if the samples go through (manufacturing process) tomorrow".

The initial manufacturing trial was conducted on May 1st, 2015 and I invited the whole team to directly participate in the manufacturing process on the shop-floor, as output efficiency was crucial in minimising product cost. This encouraged interaction with the machine operators in the Six Sigma team, who were engaged in proactively suggesting and testing different techniques to increase efficiency. This also occurred on May 7th and 8th, 2015 and the retailer received their products on time and in full (OTIF).

I sent the trial report to Peter and the rest of the team on May 13th, 2015, outlining the manufacturing trial process and unexpectedly, Henry forwarded his response to James (senior director) outlining his congratulations to the team.

> "James FYI.
>
> Excellent work by Vince and the team.
>
> Hope this takes off!!
>
> Regards,
>
> Henry".

After initial, encouraging feedback from the retailer, they did not commit to implementing the new product. The outcome felt quite disappointing as the retailer initiative was no longer required and gave way for new priorities. However, the encouraging experience of facilitating an engaged team with committed participation gave me a feeling of enthusiasm that Six Sigma teams could be beneficial.

New manufacturing techniques unpredictably emerged as a result of diverse ideas from machine operators. Conducting testing as part of the trial process was beneficial for the business as the increased efficiencies applied to existing products which were currently

manufactured for other customers. In the longer term, learning from my experience is useful for other practitioners to explore new, unplanned ideas rather than being restricted by defined Six Sigma DMAIC steps and forecasted targets.

7.3.5 Insights from Enthusiastic Participation.

The invitation to lead the Six Sigma team felt like being attracted to participate rather than being coerced. This management practice promoted a sense of engagement which also reflected the enthusiasm of the other participants who volunteered. The feeling of autonomy inspired the team to explore unplanned opportunities by contributing creatively with the intention of really delighting the retailer by exceeding their requirements.

Encouraging volunteers to participate and not imposing instructions through hierarchical status appeared to stimulate team members into actively looking for possibilities beyond the Six Sigma DMAIC steps. This was shown during the manufacturing trials, where all participants were attempting to improve machine efficiencies and product quality rather than focus on a single quantifiable target, such as cost. There was a sense of empowerment and committed engagement which went beyond complying with the Six Sigma structure consisting of meeting agendas, actions, timescales and accountable targets.

The signs of confrontation with Frank at the first meeting were related to power and status regarding who facilitated the initiative. However, becoming aware of possible conflict negated any escalation by promoting ongoing conversations. Due to local autonomy, the initial meetings did not adhere to the Six Sigma format of specific agendas, detailed actions and targets. Incorporating this flexibility felt natural and allowed diverse discussions and engagement, based on a wide range of experience. The benefit of producing a well-received report was facilitated through a challenging, but collaborative approach from all participants, which I could not completed on my own.

Part of my managerial learning occurred from the urgent retailer trials where I became self-aware of my initial frustration and anxiety linked to possible failure to supply their product on time. A reflexive approach gave me a sense of reassurance that the team would do their best to meet the retailer requirements, rather than micro-manage a series of Six Sigma actions and completion times. Participants reacted well to the pressure by working collaboratively as a team. The result was achieving the customer requirement through constructive conversations, which highlighted a feeling of collective responsibility.

This experience was uplifting as the team members felt they had contributed usefully towards satisfying the retailer requirements. The other tangible benefits were improved efficiency and output of existing products, irrespective of the retailer not placing orders. This resulted in improving the site’s customer service levels and the sense of enjoyment resulted in an empowered entrepreneurial spirit where team participants continued to explore possibilities for further improvement.

7.4 The Changing Nature of Experiencing Life.

Stacey (2011) acknowledges social relationships, but does not illuminate the personal experiences of emergent change from living life as enquiry (Marshall, 1999). As my confidence grew in collecting empirical material as the research progressed, it felt natural to record what I initially considered as my separate social experiences. I came to realise there was no divide as I could not separate my thoughts or feelings between work and home, as both had an impact on my management practice.

Living through stressful emergent change which I previously would have understood as a separate 'home life' were relevant to my management practice. Research illuminated a new understanding when my son requested a transfer to another local martial arts club. This initially seemed relatively straightforward, but developed into a stressful and complex transition. This experience of complex emergent change and exclusion is outlined in section 7.4.2, which impacted on my management practice. On reflection, I recognised my own bias and became more empathetic to other points of view rather than assuming my version of events was the one and only truth.

Similarly, my experience with family and friends is outlined in section 7.4.3, which assisted my continual becoming as a manager in learning from the wise qualities of others. I reflected on 'putting things into perspective', regarding the importance of close family relationships, in comparison to the relative unimportance of management practice during Six Sigma initiatives. Conclusions from reflexive iterations facilitated insights through the hermeneutic circle, as proposed by Introna (1997) and outlined in section 7.4.4.

7.4.1 Experiencing Emergent Change.

Prior to my research I considered my experiences inside or outside of work as separate. I had a concern which escalated and impacted on both when my son, Kieran, requested a transfer to another martial arts club. The reason for recording this particular experience was shown in my first reflexive thought on October 6th, 2014, which illustrates my inability to separate my thoughts between being in work or not.

> My initial perception: "Hence the reason for including it in the journal because it's something that is almost continually on our minds (my wife and I), whether it's work related or not".

Glossary of Participants.

The main organisational and participant names are listed below, which have been changed for anonymity where necessary.

Kieran:	My son (martial arts student).
Club A and Instructor A:	Original Martial Arts Club and Instructor.
Club B and Instructor B:	New Martial Arts Club and Instructor.
Master C:	Head of UK Martial Arts.

Kieran was fourteen and had spent nine years training twice a week as a registered student at club A, which included competing in martial arts at national level. In addition, he trained once per week for three years at club B as both clubs were part of the same region and governing committee. Kieran made my wife and I aware on several occasions that he wanted a fresh challenge by transferring (to club B) on a full-time basis. I recorded my initial thought on October 6th, 2014 outlining my intention to initiate the process.

> My thought: "One thing that won't go away is Kieran's desire to transfer to club B (where he trains on a Monday night) from club A. He has been very mature about it, not ranting or raving, but is very certain that he needs to move, and he is also certain that it is very likely he would stop doing the sport altogether (if he doesn't move to club B), so he deserves our respect in terms of following it up. This is going to be awkward, but he's been very mature about it, so I think we need to sort it and (my wife) agrees".

My preconceived idea of the intended change was a tense, emotional conversation with instructor A, due to the long association with Kieran. However, I thought the request would be accepted as both clubs were part of the same region and a transfer to club B was a better option than giving up the sport. However, the process was much more stressful, as unfolding events included deteriorating relationships, reduced conversations and exclusion. I could not have predicted the extent of the escalation, where formal conversations took place with the head of the whole UK federation (Master C).

An encouraging initial meeting.

A meeting on October 9th, 2014 between instructor A, my wife and I felt emotionally strained, but buoyant in terms of acceptance shown by the response to our request.

> Instructor A: "These things happen, they (students) grow up and I've got the tee-shirt".

We all agreed that our good relationship would continue as both clubs attended regional training on weekends. Instructor A clarified, "we won't fall out about it". I explained that no request to instructor B had been made at that stage for Kieran to join. As a result, instructor A explained a three-week timescale would allow for the smooth transfer between the two clubs.

> My first reflection: “I think this was as good a result as possible for all parties and handled very professionally by instructor A. It was evident that the preference would be no transfer to happen but (instructor A) acknowledged that it’s the only realistic approach to take. We parted on very good terms and everyone made a point at the end of saying that this would not affect our relationship when we see each other”.

Emergent change.

The following day (October 10th, 2014), my wife received an email from instructor A, outlining an unexpected change. Kieran was to leave club A, “with immediate effect”.

> Instructor A: email extract: “Having thought about it throughout the night, I feel that the move (to club B) should be with immediate effect”.

This comment made me feel anxious regarding the uncertainty for Kieran and the possibility of ruining the amicable relationship with instructor A. Therefore, rather than outlining the need to adhere to the original offer of transferring over a three-week period, I compromised by accepting Instructor A’s decision.

> My second reflexive iteration: “Seems like a massive turnaround from last night and may be partially to do with (instructor A) thinking about it and discussing it. Still, it’s understandable, so we sent an email back saying we will support the decision. Need to speak to instructor B and realistically that’s not going to be tomorrow (Saturday October 11th, 2014, normal regional training) as there’s so many people around, so it looks like Monday (October 13th, 2014)”.

Transfer to club B.

Following an encouraging meeting with instructor B on October 13th, 2014 the transfer for Kieran to club B was agreed in principle. On October 15th, 2014, instructor B received clarification from instructor A, which allowed formal authorisation to implement the transfer. I bought a gift for instructor A, to show our appreciation for the previous years of teaching. As a family, we wanted to maintain a good relationship as Kieran would continue to attend regional training sessions with both instructors on weekends.

Learning from Signs of Exclusion.

My recordings reflected signs of exclusion from instructor A, shown by body language, no eye contact or reciprocating conversation. This changing behaviour started on Saturday 18th, 2014 when I gave instructor A the gift prior to the regional training session.

> My third reflexive iteration: “This is a clear signal that things have changed and the notion that “we won’t fall out about it” is not quite right. It’s a bit of a shame that there is this type of reaction and hopefully things don’t have a direct effect on Kieran. Hopefully things get easier as time goes on and there is clearly no need to fall out, although I think there are signs where people are trying to make us fall out with them”.

Exclusion and Inclusion.

Becoming excluded from conversations with Instructor A was becoming increasingly evident, shown on October 25th, 2014. This was reflected in my fourth reflexive iteration where I felt there was deliberate provocation.

> My fourth reflexive iteration: “Instructor A walked past me (within one foot) as I was sat on the edge of the gym hall. I deliberately looked towards instructor A to show acknowledgement, as I thought this might be a fresh start, now that the transfer was complete. I can honestly say, Instructor A’s vision was deliberately moved away from me, deliberately ignoring me”.

The emergence of instructor A ignoring Kieran and myself was demonstrated in another reflexive iteration on January 31st, 2015. In order to cope with a stressful situation, my thoughts were changing to accept exclusion as normal behaviour, which is shown in this extract from February 6th, 2015.

> My fifth reflexive iteration: “I’ve stopped logging any instances of no talking or “being blanked” by instructor A and some of the people at club A, partly because it’s becoming normal”.

Paradoxically, there were conversational themes which highlighted enthusiastic inclusion at club B at the same time as exclusion from club A. Enjoyable examples of Kieran’s participation were recorded in the journal on November 7th, 2014 and our family attendance at the club B Christmas party on December 20th, 2014.

At a ceremony in London on January 31st, 2015, Kieran won a national award and we felt included in a great social evening with people from all over the UK. The positive, trusting relationships started to alleviate feelings of anxiety which was useful for reflecting on my management practice. Enjoying the sport and buoyant social interaction with members of club B culminated on March 28th, 2015, when Kieran won a final ranking tournament and qualified to compete at the European Championships in Moldova (July 26th, 2015).

Escalation: a meeting with Master C (Head of UK martial arts).

Emergent change was shown when Kieran attended extra training at the UK headquarters in London on May 3rd, 2015. The head of the UK federation (Master C) approached me

by asking, “can I borrow you for a chat for five minutes?” We went to a separate room and on his request, I summarised the process of Kieran’s transfer to club B. My explanation seemed to reassure Master C that we had been open and honest throughout the process.

I expressed my thoughts that I did not want to formally complain as Master C, “could do without it” as he was busy enough as the head of the UK organisation. I explained my only intention at that time was to negate any escalating conflict. Master C said he would make it an immediate priority to, “make it clear they (instructor A or any other instructor) do not own their students”. This reassured me that Instructor A would understand that Kieran was free to train at any club without fear of feeling excluded. I felt the relationship would become amicable again, particularly as both clubs were part of the same region which meant frequent contact with both instructors.

Following the meeting with Master C, my sixth reflexive iteration showed my sense of relief regarding my previous anxiety and stress.

> My sixth reflexive iteration: “Feels a weigh off my shoulders, because I didn’t want to approach Master C with any formal complaint although there have been instances when I have been very close. As he asked me, it has given me the opportunity to explain”.

However, irrespective of his hierarchical status above all instructors, symbolised by being the only ‘Master’ and most senior leader in the UK, his intervention did not alter the relationship or behaviour of Instructor A. This validates Stacey’s (2011) proposal that power is not in the hands of leaders but is fluid and moving in the moment of conversational relating.

Multiple Versions of the Truth.

Further exclusion occurred as club B was unexpectedly expelled from the regional set-up of the two clubs, which seemed extreme. It took until June 6th, 2015 for instructor B to find a new training venue and I felt uncomfortable that Kieran’s transfer contributed to this detrimental and extreme outcome. I critically questioned how this excessive behaviour could be justified.

However, further reflection developed my empathetic understanding, by considering the perceptions of others as well as myself. I concluded that Instructor A must have believed a specific version of truth which justified escalating exclusion, which I did not believe or accept at the time. Through my retrospective reflections I have learned to accept multiple versions of the truth. This open-minded approach allows a greater ability as a manager to listen, reflect and acknowledge diverse views or unexpected outcomes, which I might not initially want to accept.

> My seventh reflexive iteration: "I recognise that different parties will have such different views, that their version of the "truth" will seem unquestionable to them. I think I have tried to record what I have witnessed into the journal. I very much hope that things can settle down as there is now no involvement of club A and hopefully instructor B won't have the adverse effects on his business".

Remaining optimistic during this stressful period allowed Kieran to continue his enjoyment and participation in the process of training amongst others at club B. This culminated in his participation in Moldova on July 26th, 2015, when he won a gold medal and became Junior European Champion in martial arts sparring. Learning from this experience and insights from family and friends allowed me to reflect on implications for practising managers, as outlined in section 7.4.4.

7.4.2 Experiences with Family and Friends.

I recorded my thoughts regarding family and friends as they felt more emotionally important to me than work. During difficult times such as illness, I naturally reflected on what was actually important, which I recorded as, 'putting things in perspective'. However, I only became self-aware of thinking meaningfully about such statements by practising reflexive iterations through the hermeneutic circle (Introna, 1997).

Developing my awareness through continual reflection assisted in alleviating my anxiety as a manager by considering Six Sigma initiatives as relatively unimportant. I learned from insights from reflecting on illness amongst family and friends which are highlighted in the following sections concerning the individuals listed below.

Glossary of Participants.

The names of the relevant colleague and family member are shown below and have been changed for anonymity where necessary.

Eddie:	Work Colleague.
Melv:	My Father-in-Law.

Putting things in perspective.

One of the first recordings regarding family and friends was on March 1st, 2013. Eddie, a close work colleague returned to site with his partner after he had hospital tests. It was an emotional time as he had a type of cancer and it felt natural to record all my significant thoughts in my journal.

> Journal entry title: "A day to remember: terrible news".

> My initial thought: “Don’t know why I’m writing this, but I suppose it (Eddie’s illness) put’s things in perspective”.

Eddie started to return to normal health, shown in further reflections on August 5th, 2013.

> My thought: “Overall a much better situation for Eddie and part of the reason for putting in this note is putting things like work into perspective”.

However, I reflected that I frequently used the words, but didn’t prioritise family and friends over work. This was reiterated when my sister, Rita, was admitted to hospital on September 4th, 2013. Initial signs were very worrying, but the actual outcome was much more positive as she made a full recovery.

Whilst I was visiting her in hospital, I spoke to Henry on my phone about a work-related subject. Reflecting on the conversation made me realise the paradox of saying I’m putting things in perspective, but not being able to categorise my thoughts and feelings so neatly.

> My first reflection: “So even though I ‘put things in perspective’, even a few minutes later, back to talking about things that are much less important (work related issues with Henry), so I have to learn about not putting things in perspective!”

Becoming reflexive in the moment.

My second reflexive iteration changed to realising I should try my best to reflect in the moment and become aware of what is really important to me. This was beneficial in becoming mindful of greater priorities in life over Six Sigma change initiatives. The intention of a greater self-awareness was reducing my anxiety, which applied to my management practice as shown in my second reflection.

> My second reflexive iteration: “For the vast majority of the time, I am concerned about much less important things, but they are connected to us as individuals; for example, my research, work etc, but this is another lesson learned. Try my best at everything but remember there are more important things”.

An example of being reflexive in order to really enjoy the moment occurred on my birthday (December 13th, 2015). As a family, we went to London for a short break and my unexpected present was a wrist watch that I had always wanted. My third reflexive iteration prompted me to think differently by really prioritising my family experiences over material possessions.

> My third reflexive iteration: “I do think the research has made me reflect, not just after, but at the time in putting this type of experience in perspective; in really learning to think and appreciate at the time. Almost how to enjoy the moment and not wait until years later and look at photographs. The other aspect is how much

> I enjoy experiences, especially associated with my family more than material things.
>
> An example is the watch, which I am so pleased about and really grateful for, but would I swap it for the night of boxing (attended world championship boxing at the O2 stadium) with Kieran that was a fraction of the price? Absolutely not. I can happily say that my perspective has changed, but more importantly, to appreciate that at the time".

Family illness; feelings of anxiety and stress.

I had several months of personal anxiety related to my wife, Nicky's illness. Surgery was required several times, but thankfully, her medical treatment culminated in a full recovery. During the same period, I recorded my experience and reflexive thoughts regarding Melv becoming seriously ill. He unfortunately passed away and I only realised after the research that recording my thoughts and feelings in a personal journal helped me to cope with a very stressful situation. Only in hindsight have I realised that reflecting on the recorded empirical material taught me valuable lessons as a person and a manager.

On December 22nd 2015, Melv was taken into hospital, which was worrying as he had a degenerative condition, but an initial diagnosis of a chest infection appeared to be encouraging as it could be treated. This meant he would stay in hospital for the Christmas period, but we all stayed upbeat shown by my journal comment, "we'll bring Christmas to him!".

My recordings also highlighted enjoyable times, shown by the positive interaction over Christmas when we all looked forward to the new year when Melv would return home. Continual reflection indicated my deeper understanding of experience as a human rather than assuming a separate work identity as a manager. This is shown in my first reflection from an extract in my journal on January 8th, 2016.

> My first reflection: "These conversations, although seemingly bounded as personal and 'outside' of work, it does make you think in terms of the whole. It's coming to us all and it does make you think about you as a human being in the world, not just a manager from 8-5pm and what is important to you".

The first of my wife's multiple surgeries occurred on January 24th, 2016, which added to the anxiety, indicated by my thought at the time, "the only option is to stay positive". In addition, Melv was brought back into hospital at this time as his breathing had deteriorated. We all continued with hospital visits but extracts from January 28th, 2016 indicated my changing reflections as I started to envisage possible outcomes.

> My second reflexive iteration: "Visited Melv last night and his breathing is still a problem and although they've checked his heart and it's all ok, I'm very concerned".

I also reflected on becoming aware that my anxiety and stress associated with this experience could not be erased at work.

> My third reflexive iteration: "It also makes me certain that you cannot separate personal experience and work. Although I'm going about my normal tasks, I can't help but think about the possible consequences of the worst-case scenario".

During my visit to see Melv on February 3rd, 2016, he said he, "wasn't great", but our interaction was up-beat and positive. I noted his ability for being self-less by asking about Nicky's condition as a priority over his own serious illness.

> My note: "The visit was good and Melv was in good spirits. I think he was more concerned about Nicky's condition than his own".

During a visit on February 5th, 2016, I was becoming more concerned as I thought about Melv's breathing during a visit.

> My fourth reflexive iteration: "He's not finding it easy to breathe. I was thinking when I looked at him that it's taking a lot of his concentration to just breathe".

Melv passed away on February 6th, 2016 and I recorded my feelings in my personal journal. On reflection, I noticed the title was the only recording in my journal which was in bold red text. It was symbolic of the profound effect on me as a person.

> My fifth reflexive iteration: "It's a very tough time, but if the research has taught me a major thing; it's that things continually change and that "becoming" doesn't stop. I don't want to particularly use my studies in such a difficult time, but it gives me some comfort, especially that things will get better.
>
> By the same token, I'm much more aware now, when things seem to be going exceptionally well, not to be overly optimistic that this will stay but just as importantly, not to be so pessimistic in expecting bad situations. Just accept the things in the moment for what they are, in the knowledge that continual change will emerge.
>
> In these sorts of bad times, I remind myself to appreciate the good times that have happened. I'm fortunate enough to have been a part of that, in knowing someone that I can genuinely call a stand-in Dad, mentor, friend and absolute top bloke".

My sixth reflexive iteration on February 6th, 2016 illuminated my own becoming by reflexively learning from my lived experience with Melv. This experience continues to influence my behaviour by endeavouring to learn from his wise qualities whilst aiming to achieve his standards of honesty and integrity.

> My sixth reflexive iteration: "It's difficult to summarise the esteem in which I hold Melv, but in all the circumstances I can think of, he had honesty, integrity, absolute trustworthiness, loyalty and he always seemed to have the ability to do and say what seemed to me like the right thing. Probably the biggest compliment

> I can pay him is I would happily advise my children if they are unsure in any situation to ask themselves, "what would Melv have done?" and follow that feeling, knowing it is the right thing to do".

My reflexive iterations of the provided insights from my whole experience, including management practice. Other practitioners may be able to use personal experiences for reflexively learning about the wise qualities of those they aspire to. I continue to develop my management practice towards a heightened awareness of selflessly listening and empathising during interaction with others. I am increasingly aware that stressful 'personal' experiences concerning myself, or other participants can have an impact on interaction and behaviour at work.

7.4.3 Ending my Empirical Material.

The title of my entry on August 2nd, 2016 signified my thoughts about my empirical material coming to a natural end after four years, following an exceptional personal experience with family and friends.

> Title: "Tuesday 2nd August 2016 – (Martial Arts) World Championships - Seems like a good day to finish my journal!"
>
> "Kieran and Connie both competed exceptionally well in martial arts junior sparring, winning a gold and silver World Championship medal respectively. We are very proud parents!"

My reflexive experience made me aware of how change had continually emerged from the anxiety of Kieran's transfer to club B and the greater stress regarding illness amongst family and friends. Developing my ability to become reflexive, both in the moment and after those very stressful times provided a sense of perspective of what is actually important during the changing experience of life. Embracing unpredictable emergent change gave me a sense of reassurance that better times would come, even though I couldn't control the outcome. This is shown in my final reflexive thought and learning from my experience is outlined in section 7.4.4.

> My ending reflexive thought: "A brilliant (World Championship) week, but the most pleasing thing was that all the students seemed to have the respect of their UK peers and have a fantastic social time. In addition, the personal experience for us all was great, with Instructor B making it a fantastic time. To put the icing on the cake, my mother-in-law, Toni, came with us for the whole week. At various times throughout the week, I think we all thought of Melv and what he would've thought of Kieran and Connie's achievements. Although it's upsetting, it makes you think how special the experience was".

7.4.4 Learning from my Experience.

Learning from the broader context of the changing nature of experiencing life has assisted in becoming more open minded as a manager to unpredictable, emergent change that cannot be controlled through hierarchical power. Emergent change has been shown to occur, so whilst I reflect and enjoy positive outcomes in the moment, I am aware of future instability. In contrast, during stressful times or negative outcomes during my management practice, I continue to participate, as ongoing events continually unfold, hopefully for the better.

Interpretation of reflexive iterations through the hermeneutic circle allowed a realisation that my experience inside or outside work are not separate. Both are an amalgamation of the same conversational, symbolic and power relating which influences my future behaviour and interaction. For example, personal anxiety encountered during Kieran's transfer to club B did not stop when I interacted at work and was therefore significant to learning from my whole lived experience. Through hermeneutic interpretation, I have learnt to be more empathetic in trying to understand multiple versions of the truth, by becoming open minded to diverse views and ideas, whether that is inside, or outside of the work environment.

My changing approach has been beneficial to my management practice, through empathetic understanding towards others and welcoming open discussions. Developing my quality of listening enabled ongoing conversations and continued engagement in Six Sigma teams. As a consequence, this changing management practice of encouraging inclusion and promoting conversations assists in creating possibilities for emergent and possibly beneficial, organisational change.

Attempts at control through hierarchical status were demonstrated as false by the head of the UK federation in martial arts as he could not influence outcomes, even the behaviour of a much lower ranking instructor. The inability to control outcomes as a leader was starkly demonstrated, even in a disciplined environment that symbolises the embedded structure of rank and seniority. Insights from my experience changed my thinking to adopt a humble management practice of letting change unfold (Chia, 2014) rather than attempting to influence participants, as I realised, I cannot control interaction.

I have benefitted by learning from the wise qualities of others with greater experience such as Melv. This has been beneficial in developing an understanding of my priorities as a human rather than considering my sole identity as a management practitioner. Putting things in perspective has reduced my anxiety when forecasted Six Sigma targets do not come to fruition. My emphasis has shifted from attempting to control outcomes to focus on committed, but empathetic participation with others by encouraging ongoing conversations.

It felt natural to stop recording in the journal after four years, which culminated in such a momentous experience of my children competing in a martial arts World Championship. The full extracts from my personal journal mentioned the symbolised success of winning

medals, but the bulk of the empirical material focused on what really felt important as a human, which was reflecting on the enjoyment of the social experience. For example, the recordings reflected my thoughts concerning the wider importance of including my mother-in-law to come with us, as she had lost Melv. My ability for deeper reflection allowed me to feel sad that Melv was not there, but also a sense of contentment and reassurance that he would have enjoyed the occasion and been very proud of his grandchildren.

Living life as enquiry (Marshall, 1999) contributed to my continual becoming through appreciating a deeper sense of reflection in the moment and after emergent change. This practice is useful for genuinely paying attention to all relationships as part of life, including my participation in Six Sigma teams. I have developed my ability to recognise signs of inclusion and exclusion, listen, encourage ongoing conversations in a safe environment and embrace emergent change by adopting a humble management approach of 'putting Six Sigma in perspective'.

Chapter eight brings together the insights from four years of research as an involved manager (Introna, 1997). I address the specific research questions outlined in chapter one, in order to uncover findings and section 8.5 brings together my initial insights to facilitate deeper interpretations regarding emergent organisational change and management practice.

Chapter 8. Discussion.

In this chapter I discuss and interpret my findings by addressing my original research questions. Each section highlights the key findings relating to a series of Six Sigma initiatives from my reflections, through the lens of complex responsive processes of relating (Stacey, 2011).

Figure 8.1 illustrates how I gain initial insights from each Six Sigma initiative and learn from lived experience, which are outlined in sections 8.1 to 8.4. I utilise my interpretative framework (chapter two, section 2.4.4) to bring together the initial insights from my empirical material to uncover original contributions regarding emergent organisational change and management practice, as outlined in section 8.5.

8.1 A Processual Account of Emergent Change.

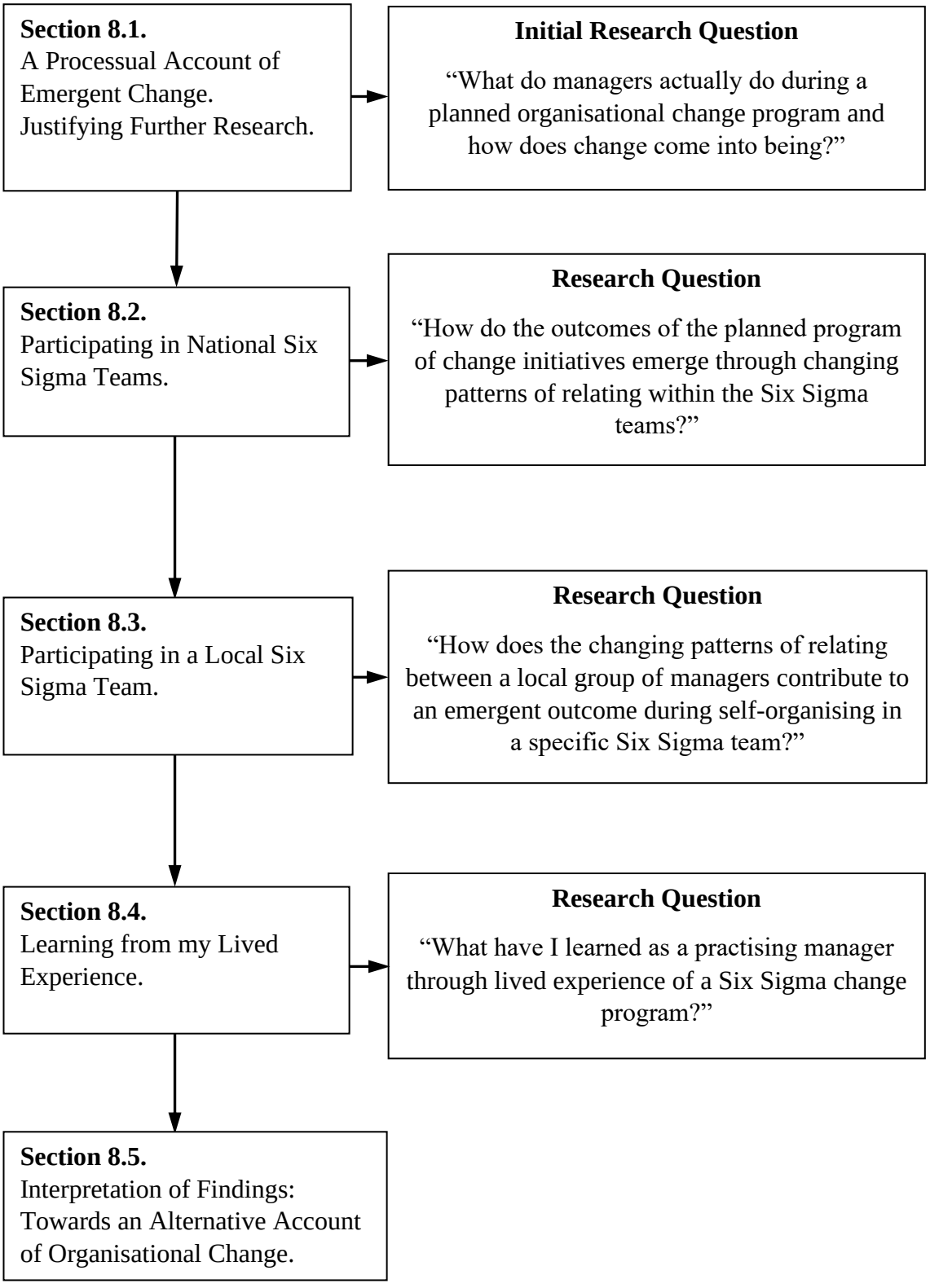
At the outset of implementing Six Sigma, I reflected on my managerial experience, which did not align with the literature outlining the ability of managers to influence outcomes through planned organisational change (Antony *et al*, 2018; Cocks, 2014; Da Silveira and Sousa, 2010; Kumar *et al*, 2008). In contrast, my experience reflected unpredictable outcomes, regardless of how much I tried to plan and monitor the progress of Six Sigma initiatives (McDermott, 2006). Processual perspectives of unpredictable emergent change were closer to my experience, (Chia, 2014; Stacey, 2011; Tsoukas and Chia, 2002; Parker, 2000; Weick and Quinn, 1999). This led me to ask the question that ultimately came to frame the whole study:

> "What do managers actually do during a planned organisational change program and how does change come into being?"

The initial findings outlined in section 8.1.1 demonstrated that managers did participate in Six Sigma formal meetings and followed the DMAIC steps. However, unplanned self-organising between participants also occurred through shadow conversations which occurred outside the formal meetings. The changing patterns of relating contributed to the unpredictable cancellation of Output 30, which justified further research.

Subsequent participation in multiple Six Sigma initiatives uncovered key findings from directly addressing specific research questions with respect to the empirical material presented in chapters four to seven. An overview is illustrated in Figure 8.1 and the initial findings are outlined in the following sections. These findings are brought together in section 8.5, where I discuss an alternative account of organisational change and management practice. These interpretations add to the existing knowledge and highlight possibilities to work creatively with change programs such as Six Sigma.

Figure 8.1 Discussion: Chapter Overview



8.1.1 Key Findings.

The key findings from the start of the Six Sigma program are listed below, which commenced with Output 30 and justified further research.

i. Managers collaborated within the formal scope of Six Sigma meetings, but also informally through shadow conversations amongst trusted colleagues. As a consequence of the latter, unpredictable iterations undermined the first Six Sigma initiative and the outcome did not match the forecasted target.
ii. Managers were building alliances and excluding others. This important dynamic was not included in formal Six Sigma training. These shadow conversations were shared between trusted participants and were indicative of an underlying resistance to the formal implementation.
iii. New ideas that were outside of the Six Sigma project definition were not always shared formally. Participants felt they were contravening instructions from senior personnel if they did not follow the initial conditions outlined by forecasted targets. Therefore, managers 'played the game' of going along with formal instructions whilst critical shadow conversations were occurring at the same time.
iv. Outcomes did not follow the blueprint of Six Sigma through the DMAIC steps or data driven decisions. Managers participated in a complex mix of formal and informal interaction, contributing to an unpredictable outcome (Stacey, 2011).

The cancellation of Output 30 contrasted with the positivist view of meeting forecasted change through implementing Six Sigma. In order to explore the detailed contribution of changing patterns of relating to emergent change (Stacey, 2011) further research was required across more Six Sigma initiatives. This led me to revisit my research objectives, as outlined in the introduction in chapter one, section 1.2, which are:

i. Explore an alternative way of understanding organisational change which contrasts with the positivist notion of implementing the prescribed phases of Six Sigma.
ii. Examine how decisions are made through the prescribed initial conditions of the Six Sigma DMAIC methodology in an attempt to predict and control. The intention is to reveal how unexpected outcomes emerge through self-organising and unpredictable iterations of interaction.
iii. Illuminate how practising managers make sense and attempt to cope during the implementation of planned organisational change programs.

These objectives were satisfied through further investigation into Output 30, multiple Six Sigma teams and learning from my experience. Key findings from each initiative are outlined in the following sections and overall interpretations from my research are addressed in section 8.5. Conclusions are drawn from these objectives in chapter nine, (section 9.4.1) in order to summarise original contributions to extant knowledge regarding organisational change and management practice, whilst encouraging further research.

8.2. Participating in National Six Sigma Teams.

I highlight key findings from participating in the Output 30 and national Six Sigma teams outlined in chapters four and five, by addressing the following research question:

> "How do the outcomes of the planned program of change initiatives emerge through changing patterns of relating within the Six Sigma teams?"

Formal communication from senior personnel indicated support at the start of Output 30, but the documented iterations demonstrated ongoing change. In contrast to the Six Sigma methodology of data analysis being used for rational decisions (Da Silveira and Sousa, 2010), the circulated quantitative results from Output 30 actually prompted humorous comments. These conversations developed into a more derogatory, critical tone rather than the intended rational analysis of the Six Sigma data to guide improvement.

The initial exchanges were already bordering on criticism and became increasingly significant in changing the perception of participants. The spreading critical conversations provided a clear signal to others that it was formally acceptable to undermine the initiative. A growing number of participants who had not previously commented started to interject with their criticism through emails, whilst excluding the Six Sigma manager (Kelvin).

The impact of this criticism was reduced commitment towards Output 30, which was demonstrated by a lack of sharing new ideas and open conversations in formal meetings. For example, Eddie had an alternative idea of considering machine downtime, which he only shared informally with me. He did not raise his idea formally as he was fearful of the Six Sigma leader perceiving him as negative, for contravening the defined target of increasing machine speed. This was a lost opportunity for exploring unplanned opportunities for change through more open, honest and diverse discussions.

Shadow conversations started to demonstrate a lack of confidence that Output 30 would meet the defined target and iterations contributed to a growing consensus that it could be cancelled. Following the Six Sigma DMAIC steps prompted a premature decision from James (senior director) at the 'control' stage to conduct a formal review meeting. The significance restrictive nature of the DMAIC model, changing interaction and the subsequent cancellation is interpreted in further detail in section 8.5.

An alternative approach to following the restrictive initial conditions could have been challenging the DMAIC 'control' step by redefining the forecasted target. However, rather than changing to a more flexible practice, the cancellation of Output 30 influenced senior personnel to adopt a more authoritarian approach in the subsequent national teams. A formal plan to ensure participants adhered to the Six Sigma DMAIC steps was implemented through appointing new Six Sigma leaders and database technology to track

the initiatives, which were ‘owned’ by nominated managers. As multiple initiatives continued, formal communication reinforced possible harmful consequences for managers who were perceived as incapable of achieving the Six Sigma forecasted targets. This led to friction at formal meetings and the atmosphere became increasingly fraught, shown by the difficulty in maintaining any level of buoyant team dynamics. Martinez Leon *et al* (2012) argues that this type of decline in team dynamics is significant in the demise of change initiatives.

The increasingly threatening language from senior personnel was intended to drive managers towards achieving forecasted targets, but this approach was counter-productive. Threatening formal communication included a diktat to “get on the bus” or face potential consequences of becoming a “sacrificial lamb”. This instilled an anxiety that restricted managers as they became increasingly compliant in order to avoid conflict. There was an impasse through increasingly ‘stuck’ conversations and instead of exploring new opportunities, this approach led to inaction amongst participants. The adverse effect of top-down power contributed to this lack of progress and formal attempts at control resulted in harmful outcomes, such as excluding managers from the business.

The Six Sigma teams were becoming splintered as a result of the lack of energy in formal meetings, which prompted further iterations of critical shadow conversations between trusted colleagues. The consequence was the emergence of excluded groups which is contrary to the Six Sigma methodology as it promotes the benefit of teams working collaboratively towards achieving targets (Gutiérrez Gutiérrez *et al,* 2016).

Shadow conversations were critical of the national initiatives, which contributed to reducing the level of committed participation and diminishing progress at formal meetings. In contrast to the forecasted results being achieved from decisions based on data, the scale of wasted time and expense from the cancellations was extensive. Unpredictable cancellations emerged from the changing patterns of relating and further interpretations are addressed in section 8.5.

8.2.1. Key Findings.

Regardless of senior personnel attempting to rigorously adhere to the Six Sigma forecasted targets, participants were self-organising in splintered groups and interaction was based on their concerns and criticisms. These shadow themes of conversation were occurring and moving into formal interactions, which had a detrimental effect by reducing commitment during formal Six Sigma meetings.

Table 8.1 outlines the formal intentions of Output 30 and the national teams, based on adhering to the Six Sigma DMAIC methodology. The changing patterns of relating and the contribution towards unpredictable, emergent change are also outlined, followed by a summary of the key findings.

Table 8.1. Patterns of Relating and Emergent Change in the Six Sigma Initiatives	
OUTPUT 30 TEAM	**NATIONAL SIX SIGMA TEAMS**
Implementation of Six Sigma. • Forecasted manufacturing output increase from adopting best practice machine speed. Following DMAIC steps with senior personnel support and decisions based on quantitative data.	**Implementation of Six Sigma.** • Multiple initiatives with forecasted outcomes. Intention of greater control from senior personnel and new Six Sigma leaders. Initiatives individually imposed on 'owners' and progress monitored through a database.
Changing Patterns of Relating. • Formal communication of "name and shame" for a lack of participation. • Lack of diverse views in formal meetings, maintaining status quo. • Changing conversations demonstrated criticism based on data. • Formal iterations of personal criticism of program leader (Kelvin). • Participants who were silent started to join in the critical views through shadow conversations (William). • No reinforcement of formal support and no "name and shame". • Building consensus of critical shadow themes shared more openly and not discouraged by senior personnel. • Formal conversations blaming Kelvin. He became a scapegoat to deflect blame from senior personnel and participants who were complicit in not trying to change the critical narrative.	**Changing Patterns of Relating.** • Diverse views initially raised at formal meetings. • Valid concerns about restrictive initial conditions were formally blocked. • Participants learned how to cope by avoiding formal conflict. • Iterations of contrasting shadow themes developed. Experience showed criticism became the norm (between myself and William). • Escalated to other participants who felt excluded and had no influence to change initial conditions (targets). • Formal attempts to ensure committed participation through language such as "get on the bus" changing to possible "sacrificial lamb" for job security. • Shadow conversations indicated participants understood Six Sigma may not meet targets but the only options were "comply or leave".
Contribution to Emergent Change. • Critical shadow themes became more formal and a growing consensus was more significant to emergent change than data driven decisions. • No counter proposals or senior personnel support allowed the initiative to be talked into cancellation. • Six Sigma data analysis did not ignite conversations of how to improve.	**Contribution to Emergent Change.** • Shadow conversations promoted an attitude of 'doing just enough' to avoid formal conflict. • Anxiety / lack of energy at formal meetings: not challenging the route for improvement through diverse views. • Seniority or status could not ensure engaged participation and cancellation became the most realistic option.

Changing patterns of relating between participants during Output 30 and the national teams contributed to multiple cancellations. The key findings are summarised below which forms the basis for further interpretations regarding my whole experience in section 8.5.

i. Unpredictable outcomes emerged from the changing interaction between participants (Stacey, 2011). Escalating shadow themes undermined the Six Sigma initiatives through declining commitment at formal meetings, which contributed to multiple cancellations.
ii. An understanding of managers being able to plan and influence outcomes was demonstrated in the national teams as false, as the forecasted targets were not achieved. An increased use of top-down power contributed to excluding participants, which exacerbated a shared feeling of intimidation and anxiety about job security. This building pressure had a detrimental effect on the exploration of diverse ideas at formal meetings and the resulting façade of compliance from participants contributed to undermining Six Sigma initiatives.
iii. A lack of support from senior personnel was shown to have a detrimental effect on Output 30. Conversations unpredictably changed from senior personnel over time, from initial support to shadow conversations via email, which were becoming more openly shared with others. These changing iterations became more legitimate and influenced others to join in with undermining Kelvin and the initiative. These conversations contributed to reducing commitment and the DMAIC 'control' step prompted a formal review (James) and cancellation.
iv. Strictly following the initial conditions of the Six Sigma DMAIC steps was shown to adversely affect innovative exploration (Manville *et al,* 2012). Six Sigma training uses language based on predict and control regarding the DMAIC steps. This lack of flexibility restricted conversations regarding opportunities which were outside of the initial conditions, outlined as a forecasted target. An example was not investigating Eddie's alternative idea of reducing machine downtime during Output 30 as the Six Sigma target was defined as increasing speed to best practice levels.

8.3. Participating in a Local Six Sigma Team.

A local Six Sigma team conducted a specific tender analysis for implementing a sub-contract transport supplier, as outlined in chapter six. The Six Sigma transport initiative was intended to take twelve weeks but it actually took a year. Through my experience of management practice amongst others, I addressed the following research question:

> "How does the changing patterns of relating between a local group of managers contribute to an emergent outcome during self-organising in a specific Six Sigma team?"

This led me to explore the changing patterns of relating that emerged through self-organising between the Six Sigma team participants. TS2 emerged as the new transport supplier through the complex processes of changing interaction, rather a rational decision based on Six Sigma data or strictly following the linear DMAIC steps.

Shadow themes of conversation initially demonstrated displeasure amongst local managers as a consequence of an external procurement specialist (Harry) being imposed as the team manager. On reflection, I now recognise the escalating reaction from the local managers against Harry, which was not demonstrated as overt conflict. However, the analysis of shadow conversations demonstrated how the local managers covertly formed coalitions and collaborated in efforts to undermine him.

For example, changing conversations contributed to a growing consensus amongst local managers to conduct an alternative financial analysis without Harry's input. In contrast to decisions emanating from Six Sigma data, the mistrust of Harry's financial assessment was based on the previous experience of local managers. These shadow themes of conversation contributed to a consensus amongst the local group to reject his initial recommendation. This growing criticism contributed to Harry's exclusion, but further interpretation in section 8.5 also uncovered the benefits of diversity from his inclusion.

In contrast to the toxic atmosphere of the national team meetings, the face-to-face meetings with local managers and suppliers demonstrated the development of trusting relationships. An example of the growing trust in the local team was shown during a conversation with JW (TS2), when Henry announced Harry's exclusion.

> "I'll be honest, I'm pleased. It's no reflection on Harry".

These developing relationships started to change the local team's strong initial support for TS3 towards a growing acceptance of TS2 as a potential supplier. This was not based on understanding TS2 as an organisational entity which had been influenced through Six Sigma to achieve targets. This changing perception was developing over time through ongoing, changing and increasingly positive face-to-face interaction with personnel from TS2 (JW and SK). I directly questioned Gary after a meeting with JW and SK by asking, "(perhaps change) is about peoples' relationships don't you reckon?" Gary agreed that the relationship with JW and SK had improved as they genuinely listened to his concerns about customer service and participated enthusiastically to address these issues.

The significance of the developing iterations was shown by Gary's changing perception from his initial view of TS3 being the preferred option. TS2 were becoming a realistic contender as relevant interaction unfolded, such as improving customer service levels by, "talking to all and sundry about the best way to get the product from A to B". In contrast, conversations with TS3 started to indicate a less lively atmosphere, where their language didn't indicate enthusiastic commitment towards gaining the contract. At the final meeting with TS3, SW's reactions were not overly enthusiastic, so Len and myself continued to modify our comments in an attempt to promote ongoing engagement. My

frustration at the time was based on my perception that SW was not grasping a preferential opportunity for TS3 to become the new supplier.

I only realised through further reflection that my emotional reaction culminated in blocking further negotiations with SW (TS3) and becoming biased towards conversations with JW (TS2). This was shown in an informal conversation with JW immediately prior to the final meeting. Our informal exchange was significant to the formal emergence of TS2, as I intimated the amount of savings required to reach a formal agreement. These conversations contributed TS2 emerging, as JW knew what to do to gain the contract.

A flexible approach of self-organising between the participants was demonstrated through ongoing conversations, as suggested by Stacey (2011, p.273). The participants continued to challenge the initial conditions based on adhering to the DMAIC steps and a forecasted target. The benefit of a flexible practice of redefining the intended cost target was shown by surpassing, rather than merely meeting the Six Sigma savings. Self-organising constraint was also apparent as ongoing conversations from a diverse range of personnel counteracted any new suggestions. The process did not get out of control as participants exhibited a challenging but collaborative approach which encouraged the local managers to become more open minded to TS2 as a potential supplier.

As Stacey (2011) suggests, feeling in and out of control was apparent during the process. The local managers felt in control based on defined initial conditions (Stacey 2011, p.238) which outlined the DMAIC steps to include the choice of a transport supplier that could meet the forecasted cost savings. However, the detail of whether the planned change would actually happen was unknown, reflecting Burnes (2005, p.78) analogy of planting a "rhododendron seed". The initial conditions provide a degree of control regarding the likelihood of producing a flower, but small changes in unknown variables such as planting and environmental conditions mean the exact type of flower cannot be predicted.

The transport initiative indicated a flexible management practice where the initial conditions of the DMAIC steps were not strictly followed. A natural and flexible practice of using the quantifiable target for starting negotiations was conducted, rather than meeting an exact target as part of the DMAIC 'define' and 'control' steps. This contrasted with the national Six Sigma teams, where rigidly adhering to the DMAIC steps restricted the process of ongoing interaction, which led to cancellations. TS2 emerged through the changing patterns of relating, which contrasted with intended decisions based on Six Sigma. Interpretations in section 8.5 bring together the key findings for further insights.

8.3.1. Key Findings.

Table 8.2 starts by summarising the intention of the local Six Sigma team to take a rational decision based on Six Sigma data to choose the optimum transport supplier. This forecasted outcome contrasts with the findings that reflect the significant impact of the changing patterns of relating, which contributed to the unexpected emergence of TS2.

Table 8.2. Patterns of Relating and Emergent Change in a Local Sigma Team.

TRANSPORT SUPPLIER SIX SIGMA TEAM

Implementation of the Six Sigma Team.

Choosing one optimum transport supplier from three companies (TS1, TS2 and TS3) to achieve targeted financial savings. Decision-making was intended to be based on a Six Sigma analysis by following the DMAIC steps, over twelve weeks.

Changing Patterns of Relating.

- Criticisms commenced from local managers reacting to the imposed inclusion of a central procurement specialist (Harry).
- Local managers built a consensus between them through shadow conversations. This was demonstrated by agreeing to conduct a concurrent financial analysis without Harry.
- Local iterations escalated to 'ganging up' on Harry and the escalating shadow themes of conversation contributed to his exclusion.
- Following Harry's exclusion, conversations were more openly expressed in formal settings, but also every-day self-organising.
- Local conversations initially reflected a strong preference for TS3 shown in Gary's comments such as, "they'll bend over backwards for you".
- A team 'vote' meant the team leader (Henry) could have decided a new transport supplier. A flexible management approach of not being restricted by narrow initial conditions of a forecasted target facilitated ongoing negotiations and emergence.
- Face-to-face reviews with suppliers facilitated changing conversations and preferences towards TS2 from persuasive engagement with JW and SK (TS2).
- Changing conversations facilitated a preferential opportunity for TS3, but SW unexpectedly declined, contrasting with an intended rational Six Sigma decision.
- Quantitative data provided a spark for ongoing conversations, rather than decisions.
- Changing iterations between participants continued up until the last meeting which contributed to the unpredictable emergence of TS2 becoming the new supplier.

Contribution to Emergent Change.

- Power was not used through seniority or status, but shifted through changing conversations amongst participants and changed the preference from TS3 to TS2.
- Conversations during self-organising between participants had a greater effect than rational decision making based on Six Sigma data. However, the quantitative data was useful as it contributed as a starting point for conversations with suppliers.
- Iterations contributed to excluding Harry. Henry's style of leadership allowed ongoing conversations which allowed emergent change to happen (Chia, 2014).
- Changing patterns of relating contributed to unpredictable emergent change (Stacey, 2011). Unpredictable outcomes were shown TS2 emerging after a year rather than twelve weeks and the Six Sigma savings were not met, but exceeded.

The key findings are shown below and further interpretation of my whole experience is outlined in section 8.5.

i. The changing patterns of relating between participants contributed to TS2 unpredictably emerging as the new transport supplier. Self-organising through diverse, changing conversations had a more significant impact than rational decisions based on Six Sigma data.
ii. Diverse conversations through self-organising amongst participants created the unpredictable emergence of TS2. Conversations were also constrained by alternative opinions which restricted any anarchic process or destructive outcomes. An unpredictable outcome was exceeding the original savings target.
iii. Shadow themes of conversations had a significant effect on emergent change. A direct impact was demonstrated through exclusion and changing the course of formal interaction, as local managers took Harry's place in face-to-face negotiations. This was influential in changing preferences from TS3 to TS2.
iv. Support from managers was shown by facilitating continued interaction, rather than attempts to control through the top-down use of power. This approach promoted the benefits of committed teamwork (Gutiérrez Gutiérrez *et al*, 2016) as power shifted during the iterations of changing conversations (Wiggins and Hunter, 2016).
v. The local team did not rigidly follow the Six Sigma DMAIC steps, as they naturally used the forecasted target to enhance further exploration through ongoing conversations (Manville *et al*, 2012). Self-organising and redefining the financial targets led to exceeding the originally defined Six Sigma savings.

8.4. Learning from Lived Experience.

I discuss learning from my experience by addressing the following research question:

> "What have I learned as a practising manager through lived experience of a Six Sigma change program?"

As the research process progressed, it became a way of life to record interactions in a range of settings. I used my personal journal in the moment as I went about normal organising, regardless of being inside or outside work as both contributed to my feelings, thoughts and conversations. This practice reflected living life as enquiry (Marshall, 1999) and exploring the empirical material in chapter seven had a profound effect on my learning as a person and practising manager.

A reflexive thought during the national initiatives captured my feeling of being unable to prioritise local projects and I critically questioned my identity and future as a manager.

> "What am I here for?"

I was increasingly frustrated and saddened that capable managers such as Briony were leaving, which was not good for the business. Local managers were increasingly anxious, due to the priority placed on the national Six Sigma initiatives which had an adverse effect on day-to-day responsibilities and improvement projects at their sites.

A shared understanding developed through shadow conversations that the priority placed on national Six Sigma initiatives would continue and therefore, the only realistic choice for local managers was comply or leave. Further reflection made me realise that I should stand up for others in future initiatives if they feel unable to do so, by expressing the importance of ensuring a safe environment. I have learned to encourage participants to share their concerns and challenge forecasted targets, in order to facilitate ongoing conversations and create possibilities for emergent change.

I acknowledge that the particular experience of leading the retailer initiative cannot be replicated exactly. However, encouraging signs for participating creatively with Six Sigma were demonstrated by promoting self-organising rather than sticking rigidly to the DMAIC steps. A lack of interference from senior personnel allowed local autonomy, which facilitated a wide range of volunteers, including machine operators. A flexible approach allowed the team to discuss, adapt and redefine the targets according to unfolding ideas from conversations. Anarchic activity was not evident as self-organising constraint occurred through interaction, which enabled and constrained emergent change.

The conversations instigated by machine operators allowed emerging ideas to be turned into tangible improvements through their practical expertise. Their inclusion was a new development and a good learning experience for embracing diverse views and encouraging ongoing conversations. Although the initiative did not result in the retailer placing further orders, their changing demands unpredictably led to improving the manufacturing efficiency of the whole site. Learning from the retailer initiative facilitated deeper interpretations in section 8.5 and proposals to work creatively with Six Sigma.

I recognised my previous perception of a separate ‘social life’ was not credible as I naturally recorded conversations inside and outside work. I learned from reflecting on the changing nature of experiencing life (section 7.4) amongst colleagues, family and friends. Unexpected illness made me reflect on, ‘putting things in perspective’ regarding the relative unimportance of Six Sigma. This demonstrated the futility of trying to predict or control outcomes and highted the fantasy that organisational leaders are able to do so (section 7.4.1). Learning from the significance of personal and work issues changed my outlook to accepting unpredictable emergent change and prompted me to adopt a more humble and empathetic management approach.

8.4.1. Key Findings.

The findings summarised in Table 8.3 addresses the impact of the Six Sigma program on other local managers, leading a team, and lived experience with family and friends.

Table 8.3. What I Learned as a Practising Manager through Lived Experience.		
IMPACT OF SIX SIGMA ON LOCAL MANAGERS.	**ENCOURAGING EXPERIENCE OF LEADING A TEAM.**	**CHANGING NATURE OF EXPERIENCING LIFE.**
Changing Conversations and Emergence. • Uncertainty of how to cope with local role and imposed national Six Sigma initiatives. • Iterations contributing to anxiety, feeling the need to comply. • Further iterations illustrating fears for job security "get on the bus or you'll be under it!" • Local managers leaving the business (voluntarily or not). • Shared understanding from shadow themes. Henry explained the choice: "comply or leave".	**Changing Conversations and Emergence.** • Asked and encouraged to lead the retailer team • No senior interference allowed conversations; encouraged volunteers. • Creative input and improvement through ongoing conversations. • Six Sigma reports were collaborative; much more comprehensive than my individual contribution. • Frustrated by change in customer demands. Resolved through team collaboration / ideas. • Shop-floor operator engagement.	**Changing Conversations and Emergence.** • Complex processes shown by my son's transfer. Changing interaction, exclusion, escalation and inability to control outcomes. • Conversations during stressful family issues: 'putting things in perspective'. • Conversational change always occurred which contributed to unpredictable emergent outcomes. • Interaction illustrated the wise qualities of others. • Unexpected outcomes can be beneficial.
Learning as a Manager. • A new practice of reflecting on my own identity as a manager; "what am I here for?" • Develop my empathy and listening qualities to become aware of change which was felt to be "relentless". • Management practice to encourage diversity and a safe environment. • Concern for managers wellbeing as the impact led to managers leaving the business. • Encourage local initiatives to attract others.	**Learning as a Manager** • Enjoyed encouraging volunteers, diversity and safe environment. • Flexibility to redefine DMAIC steps and forecasted target. • Engaging shop-floor operators as part of the team, not just managers • Embracing unknown outcomes as beneficial for machine efficiency improvement. • Promoting flexible self-organising rather than be restricted by the narrow scope of initial conditions based on DMAIC steps and forecasted target.	**Learning as a Manager.** • Cannot separate work and social life. • Do not strictly adhere to the DMAIC language of predict or control. Focus on the process and embrace an unpredictable outcome. • A greater quality of empathy; others may have stressful times that affect their behaviour and conversations. • Accept multiple truths as this encourages a diverse approach to new ideas. • Learn and adopt wise qualities of others.

The key findings are summarised below, which contributes to overall interpretations from my lived experience, as outlined in section 8.5.

i. Previous findings demonstrating unpredictable emergent change through changing patterns of relating were reinforced. I learned that changing interaction contributed to unpredictable emergence whether it occurred inside or outside of work, as demonstrated in my sons transfer of martial arts clubs (chapter seven, section 7.4.1).
ii. Decisive, authoritative management could not influence behaviour or conversational relating inside or outside work. This was demonstrated when the highest ranked Master in the strict hierarchical structure of martial arts could not influence participants towards an intended outcome (chapter seven, section 7.4.1).
iii. Participants felt anxious enough about the national change program to leave the business. The imposed priority of the national Six Sigma initiatives felt "relentless", and local managers felt undermined as they could not sufficiently commit their time to local organising, as shown in chapter seven, section 7.2.2.
iv. It was possible to work creatively with Six Sigma in a local team with voluntary participants who were committed and enthusiastic. The team included machine operators who had the expertise to turn ideas into practical solutions, which provided beneficial results for increased manufacturing efficiency. This was demonstrated in chapter seven, section 7.3.
v. Findings indicated the linear DMAIC steps could be naturally adapted through self-organising by revisiting and redefining the target as new demands were made by the retailer (chapter seven, section 7.3). This approach prompted the team to explore unpredictable and beneficial opportunities, which did not get out of control as outcomes were also self-constrained through ongoing conversations (Stacey 2011, p.239).
vi. Learning from reflecting on the wise qualities of others in all environments was useful for developing my management practice. I continue to improve my outlook and practices through developing a humble and empathetic approach. I now recognise colleagues may be going through stressful circumstances, regardless of being inside or outside of work, which can impact on their participation in Six Sigma teams.

I realised any notion of a separate 'social life' was false and reflecting on my empirical material developed into deeper interpretations as part of the changing nature of experiencing life. In addition, I continually reflected on my experience of participating in all of the Six Sigma initiatives over four years. The following sections outline deeper interpretations through my framework (chapter two, section 2.4.4), which contribute to an alternative and original account of organisational change and management practice.

8.5 Interpretation of Findings: Towards an Alternative Account of Organisational Change.

Intended transformational change through Six Sigma was planned as a program of manufacturing improvement, implemented through the influence of management (Termeer *et al*, 2017; Anderson Strachan, 1996). In contrast, processual views propose that organisations are not entities where managers can plan outcomes, but should be viewed as a property of emergent change (Chia, 2014; Tsoukas and Chia, 2002; Weick and Quinn, 1999).

Six Sigma is based on the ability of managers to predict and control outcomes through influencing teams (Antony *et al*, 2018; Da Silveira and Sousa, 2010; Kumar *et al*, 2008). My research refutes this correlation and adds to the existing processual accounts by uncovering the detailed contribution of the changing patterns of relating between participants towards unpredictable emergent change.

Findings have included unpredictable emergent change through multiple project cancellations and capable managers leaving the business. In contrast, I also had encouraging experiences of working with Six Sigma teams, demonstrated through enthusiastic participation and emergent outcomes exceeding forecasted targets.

I have adopted Stacey's (2011) theory of complex responsive processes of relating as my underlying theoretical position, where organisational change is understood as being complex, unpredictable, paradoxical, emergent, non-linear and relational, shown by the following propositions:

- Organisational change is seen as change in the patterns of conversations, power relations and symbolic interaction among organisational members. This takes place amongst participants in the organisational context, as experience in the moment or "the living present" (Stacey 2011, p.332).
- Organisational change does not occur through execution of planned activities, but emerges through joint co-operative action. Those participants are continuously relating to each other through conversations, symbols and exercise of power under conditions of unpredictability and paradox.
- Outcomes of these complex processes of relating are never entirely known in advance. There is no guarantee that the action will unfold by moving towards the desired direction as patterns of relating are unpredictable. Free-flowing conversations can contribute to unpredictable emergence, but interaction can also get 'stuck', which reinforces the status quo.
- Managerial action is seen as participation in these processes of relating to enable organisational members to accomplish joint action under conditions of radical unpredictability, anxiety and the evolving nature of the organisational change.

This is different from mainstream assumptions that change managers should be always in control and know which move to make next, according to planned programs such as Six Sigma.

- The theory of complex responsive process of relating provides a perspective that managers can feel in control of planned programs such as Six Sigma, but also out of control due to not knowing outcomes. Organisational change emerges from the novelty of the changing patterns of conversational, symbolic and power relating.

From the ontological position of complex responsive processes of relating, managers are understood to be participants interacting with others, where the Six Sigma program is merely a gesture or proposition, not a means of intended control. The fundamental proposition (Stacey, 2011) is that managers can learn to cope in the midst of complexity rather than being in control of planned outcomes. Therefore, my interpretative framework, in conjunction with narrative themes of conversation (chapter two, section 2.4.4 and table 2.2 respectively), provide a basis for focusing attention on:

- The quality of participation.
- The quality of conversational life.
- The quality of holding anxiety.
- The quality of diversity.
- Unpredictability and paradox.

The key findings (sections 8.1-8.4) and the empirical material presented in chapters four to seven provide a basis to use my interpretative framework to bring together deeper interpretations over my whole experience, as outlined in the following sections. Insights enabled an alternative account of organisational change through Stacey's (2011) complex responsive processes of relating, which proposes emergent outcomes through ongoing conversations.

> "Organisations are the ongoing patterning of conversations, so that changes in conversations are changes in organisations" (p.365).

As a practising manager working with Six Sigma initiatives, I have direct experience of unpredictable outcomes. The contribution of the research to management practice provides benefits for other practitioners by gaining insights through the lens of complex responsive processes of relating, which is outlined by Suchman (2002).

> "Perhaps the most important practical contribution of complex responsive processes is to offer legitimisation for and remove the stigma of shame from our lack of control" (p.17).

The findings from my interpretative framework are outlined in the following sections.

8.5.1 The Quality of Participation.

My Six Sigma training focused on managers having the ability to identify actions through the structured DMAIC methodology and participate authoritatively to influence teams towards achieving forecasted targets (QCG, 2003). In contrast, Stacey (2011, p.476) defines participation as direct conversations and "creating further interaction" with others, which contributes to unpredictable, emergent outcomes.

From the perspective of complex responsive processes of relating, participation relates to the attendance of team members at formal meetings, but also direct contributions through informal or shadow conversations. Outcomes are unknown as responses during conversation cannot be controlled, so ongoing changes of interaction create possibilities for emergent change. I focused my attention on participation in formal Six Sigma teams and also during my day-to-day interaction as a practising manager.

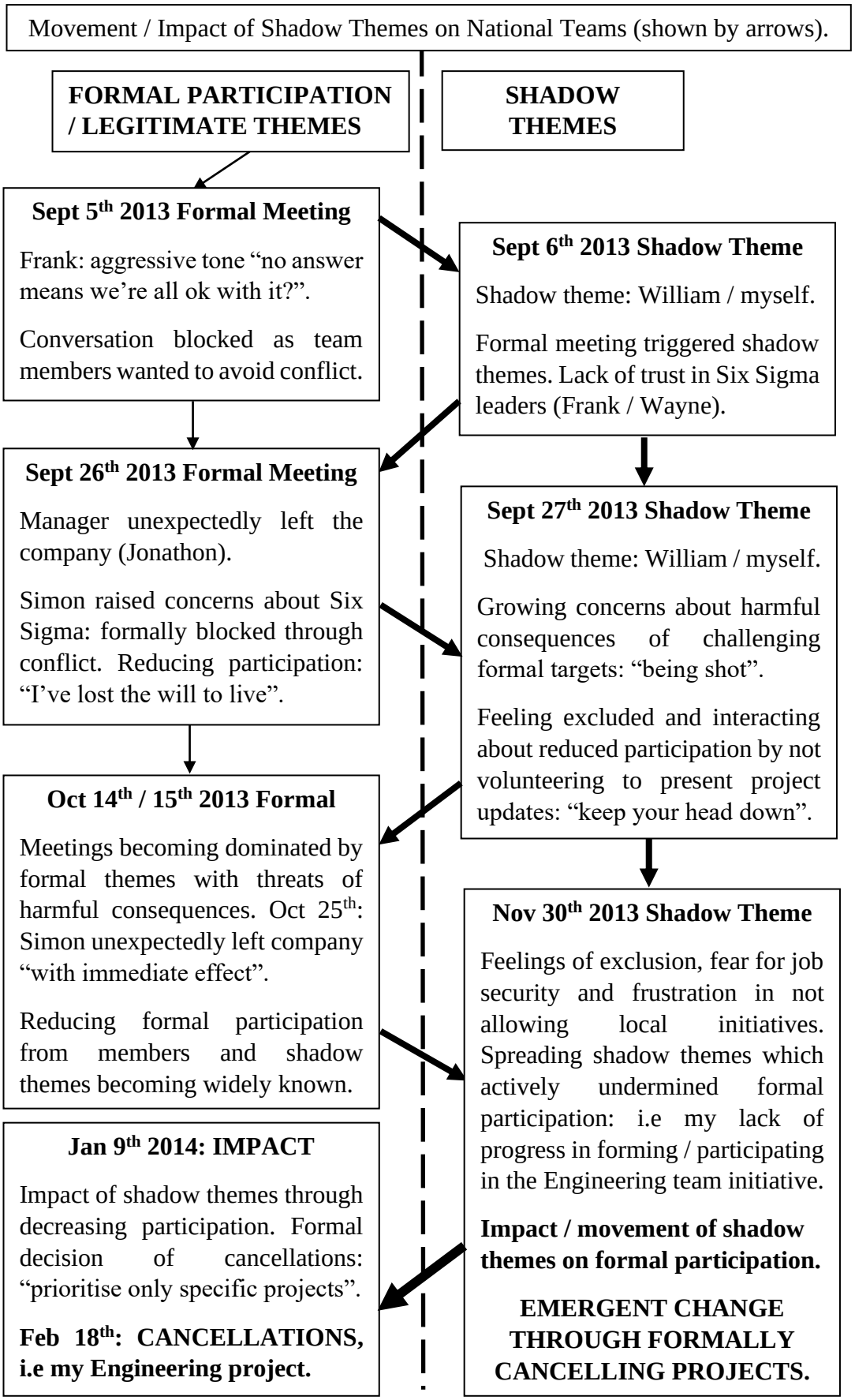
An interventionist management approach was adopted to implement the Six Sigma change program in an attempt to ensure teams were formed and members participated (Kumar *et al*, 2008). An example was demonstrated at the start of Output 30 (chapter four) when senior personnel formally threatened to 'name and shame' those sites considered as not sufficiently participating in Six Sigma teams. Anderson Strachan (1996) suggests this influential style of management can correlate to achieving desired outcomes. This authoritative approach was taken in the subsequent national teams (chapter five) where newly appointed Six Sigma team leaders formally nominated team members in an attempt to maximise participation. Strict monitoring was implemented using a database to track participation and progress against targets, based on the adage, 'what gets measured gets done' (QCG, 2003).

Implementing this type of best practice to influence participation in Six Sigma programs is shown in business case studies, such as Dow Chemicals (Antony *et al*, 2004). However, my findings challenged this position as formal attempts to influence participation in Six Sigma teams was counter-productive. Decreasing engagement was evident in Output 30 and the national teams, regardless of increasingly threatening formal communication, such as, "get on the bus or you don't".

Enthusiasm to participate in formal Six Sigma meetings waned when conversations became blocked as senior personnel used an authoritative approach through forceful instructions. This prompted shadow themes of conversation and the movement of these criticisms between a growing group of trusted colleagues had an adverse impact during formal Six Sigma meetings. This was evident on Sept 26th 2013, when a participant made a sarcastic comment, "I've lost the will to live". Team members laughed, demonstrating their humour but also growing criticism and diminishing enthusiasm to participate.

Further reflection uncovered my own complicity in undermining the national Six Sigma initiatives, by participating in shadow conversations with William which spread to other trusted colleagues. The movement, escalation and impact of the shadow conversations on formal participation is shown by examples and directional arrows in Figure 8.2.

Figure 8.2 National Teams: Formal Participation and Shadow Themes.



As shown in Figure 8.2, Frank (Six Sigma team leader) blocked participation when he asked for feedback at a formal meeting, but then added, “no answer means we’re all ok with it?” (Figure 8.2). According to Isaacs (1999), this is a statement disguised as a question, which reinforces a personal opinion in a similar manner as a manager saying, “anybody have a problem with that?” (p.366).

Isaacs (1999) suggests this type of approach demonstrates a tendency to, “harden into positions that we defend by advocacy”, which leaves no room for the honest opinions of others (p.18). Managers need to be mindful that blocking engagement at formal meetings can result in the underlying issues being discussed amongst trusted colleagues as shadow conversations, which occurred in this case.

The aggressive tone from Frank in the formal meeting prompted the movement of formal conversations into shadow themes between myself and William, as illustrated by directional arrows in Figure 8.2. The result was a reduction in our enthusiasm to participate in formal conversations, which had an adverse impact back on the Six Sigma meetings. During our shadow conversation, William demonstrated our shared belief that the best way to avoid conflict with senior personnel was reducing our formal participation, whilst doing just enough to comply.

> William: “I think we’ve had this conversation before, you have to keep your head down because there’s no point in being shot!” (both laugh).

Other Six Sigma team members also developed a similar perception that challenging formal instructions could have harmful consequences, which was based on personnel such as Jonathon (and Simon) unexpectedly leaving the business. Escalating shadow themes contributed to a further decline in participation at formal meetings and a façade of compliance. The impact was a reduction in alternative ideas being raised and even unrealistic Six Sigma targets were no longer challenged or discussed. The declining formal participation contributed to a lack of progress which culminated in multiple cancellations of national Six Sigma initiatives.

According to Stacey (2011), managers cannot control or deliberately eradicate shadow conversations, but they can develop their awareness of personal interaction which blocks further participation. Managers can learn from my insights and prioritise their participation in formal meetings as they develop their ability to reflect and recognise the possible negative effects of engaging in shadow themes of conversation.

Managers can promote participation by adopting an alternative approach to Frank, where his authoritative instructions reduced formal engagement amongst the Six Sigma team members. The retailer initiative demonstrated that managers can develop an open mind to accepting unknown change and focus on facilitating further participation through genuinely listening and enquiring (Isaacs, 1999). Clarifying formal meetings as a safe environment for all participants allowed a sense of security to raise diverse views. Managers can adopt this practice and share their positive experience of formal meetings with others in order to promote participation in future Six Sigma initiatives.

Based on reflections from Output 30, I could have improved participation amongst the group by formally raising Eddie's idea of reducing machine downtime as an alternative to the Six Sigma target of increasing speed. He only raised his idea informally with me, due to his reluctance to be perceived as negative at the formal meetings. On reflection, I should have formally raised Eddie's idea but my inactivity ensured the status quo was maintained. This was shown by Kelvin (team leader) as he prioritised the forecasted target for increasing speed through the Six Sigma DMAIC steps, meeting agenda and actions.

Managers can reduce their reliance on the structured Six Sigma approach by prioritising participation to encourage further interaction (Stacey, 2011). In this case, a practice of enquiring through open questions would have uncovered Eddie's idea. Further participation would have explored the potential benefits of his alternative route for output improvement by reducing machine downtime. Examples of open questions are listed below, to engage teams in direct participation.

- Do you think the Six Sigma target is realistic or achievable?
- Do you think the target is focused on the most significant factor for improvement?
- Do you have any alternative ideas that are outside of the initial DMAIC scope?

This type of management practice was shown in the retailer initiative (chapter seven) by refraining from top-down implementation of Six Sigma in favour of inviting volunteers, through a "grass roots" approach (Strang and Jung, 2009, p.49). Volunteers showed an eagerness to participate because they were not instructed to attend and had the self-motivation to contribute enthusiastically. A management practice of asking participants for different ideas added to the enthusiasm, which allowed the team to continually adapt and successfully meet the changing retailer requirements.

Taking an approach of no strict plan, agenda or quantitative Six Sigma target was an advantage in the retailer initiative, as the team naturally navigated their way through the ever-changing customer demands. The questions and responses amongst the group prompted new ideas and the ongoing self-organising demonstrated collaborative teamwork (Gutiérrez Gutiérrez *et al*, 2016).

The transport initiative (chapter six) also demonstrated ongoing and committed participation where local managers felt secure enough to raise challenging opinions and enquiries without fear of conflict with senior personnel. Adapting to alternative ideas by changing the Six Sigma financial targets allowed ongoing negotiations with potential transport suppliers and the emergent outcome exceeded the original expectations.

The importance for managers to pay attention to their own participation as well as team members was demonstrated by the toxic atmosphere and harmful consequences in the national teams. In addition to those unexpectedly leaving the business (Jonathon and Simon), capable managers such as Briony felt strongly enough to leave voluntarily as she felt the excessive pressure to participate in national Six Sigma initiatives was "relentless". Informal conversations with other local managers such as Henry and Henrietta

demonstrated a shared understanding that the only formal options regarding the continued prioritisation of national Six Sigma initiatives was, ‘comply or leave’.

In order to mitigate such harmful consequences, managers can ensure participation in Six Sigma teams is voluntary rather than compulsory, whilst sharing the positive experiences of direct conversational relating. Adopting a management practice of welcoming diverse views in a safe environment can promote further participation, as shown in the retailer initiative.

Managers can clarify that Six Sigma outcomes are unpredictable and unknown, as the changing patterns of relating amongst the group cannot be controlled (Stacey, 2011). Communication should reassure participants that outcomes which do not match the Six Sigma targets are not as a result of incapable managers or team members. Adopting this practice negated any feeling of incompetence or any temptation to blame individuals and in turn, this approach encouraged further participation (Stacey, 2011; Suchman, 2002).

8.5.2 The Quality of Conversational Life.

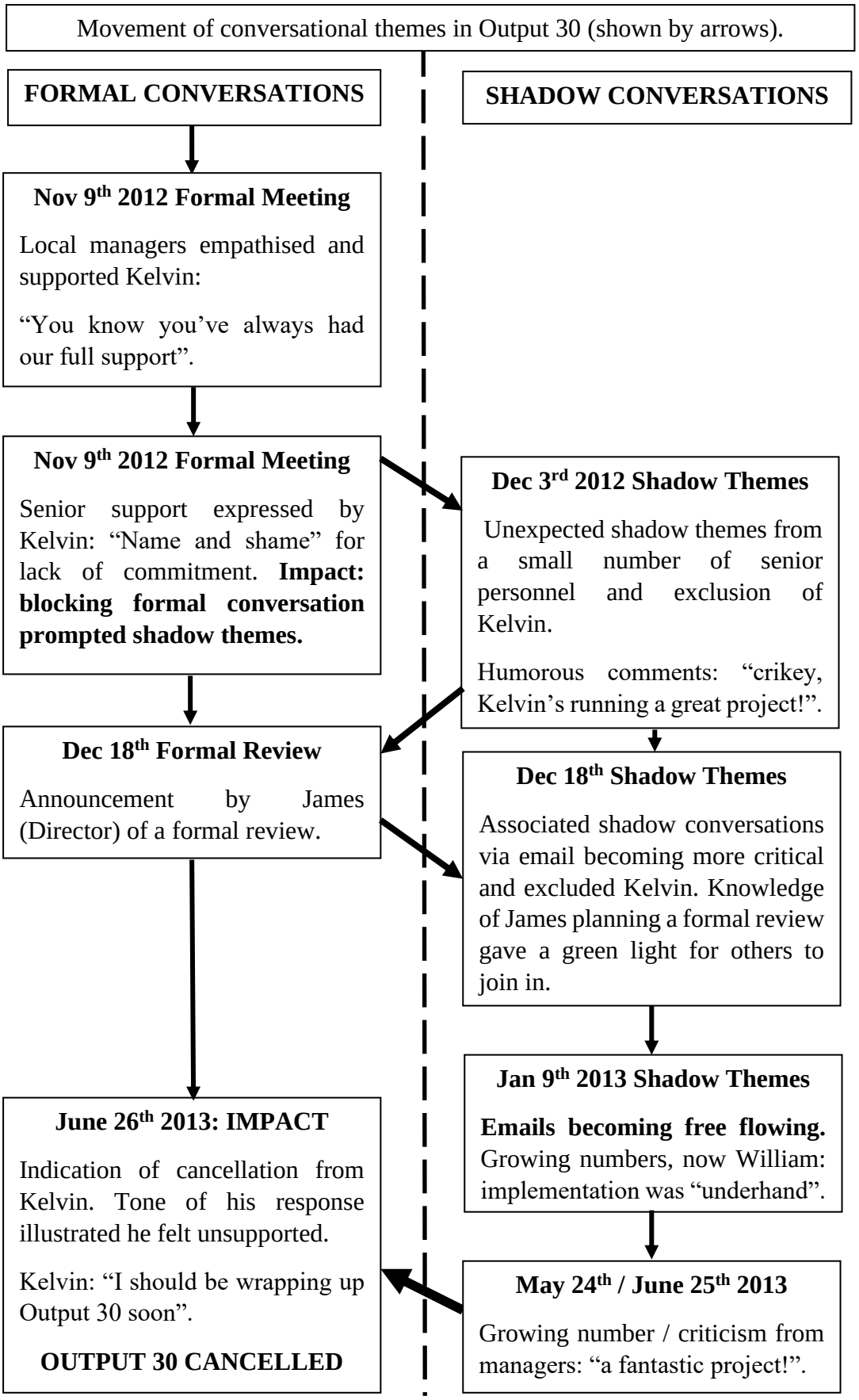
According to Da Silveira and Sousa (2010), managers can influence participants to achieve forecasted Six Sigma targets as the DMAIC methodology guides conversations and actions by comparing progress to measurable data. The prescribed DMAIC steps enable managers to take rational decisions based on data, rather than ‘gut feeling’ (Antony *et al*, 2004). In contrast, Martinez Leon *et al* (2012) proposes that Six Sigma does not adequately consider the complexity of team dynamics, which can lead to the demise of planned change programs.

Stacey (2011) proposes ongoing, free-flowing conversations create possibilities for emergent change. However, conversations can also be blocked, which reaffirms the status quo. Conversations are structured as pairings of legitimate / shadow, formal / informal and conscious / unconscious narrative themes, as outlined in chapter two, section 2.4.3, table 2.2.

I focused on free-flowing conversations which contributed to emergent change and those which blocked continued exploration. The initial formal support for Output 30 through a forceful instruction to participate was counter-productive. This approach reduced enthusiasm amongst participants to engage in formal meetings and contributed to prompting shadow themes of conversation, which became increasingly free-flowing.

The shadow conversations became increasingly critical of the initiative and had an impact through the adverse effect on interaction at formal meetings, which became more stifled and repetitive. This is represented by the directional arrows in Figure 8.3, which illustrates the movement of the free-flowing shadow themes back into legitimate conversations amongst a growing number of managers, which prompted James to conduct a formal review of Output 30.

Figure 8.3. Output 30: Blocked and Free-flowing Conversations.



By announcing a formal review meeting James demonstrated to his colleagues that he was a capable, decisive leader. However, his criticisms of Kelvin and Output 30 encouraged others such as William to join in, which developed into a consensus amongst a growing group of managers. On reflection, James demonstrated his inability to reflect and slow down on decision making when under pressure. Announcing a formal review meeting built additional pressure and expectation that a final decision would be made, as Output 30 had reached the 'control' step of the DMAIC methodology. According to Isaacs (1999), having the ability to not react during tense situations is one of the most challenging prospects during dialogue.

> "To hold the tension that arises and not react to it" (p.130).

The cumulative effect of shadow conversations, announcing a formal review and building pressure to make a decision restricted the options James could take, as the growing consensus for cancellation of Output 30 became a self-fulfilling prophecy. According to Stacey (2011) senior personnel such as James converse with others, but his seniority was irrelevant to influencing outcomes as he could not control the responses of others, so the only realistic option was cancellation.

> "What they (senior personnel) cannot do, however, is programme the responses those others will make" (p.370).

This interpretation demonstrates the importance for managers and senior personnel to enhance their own practice by promoting further conversations in preference to feeling pressured into premature decisions. Outcomes from changing conversations are not controllable but managers could have developed a greater awareness of the impact of their emails which undermined the initiative. Proposals for altering their email conversations during Output 30 are listed below, which could be adapted for other, specific Six Sigma change initiatives. Managers in this case could have adopted a practice of:

- Refraining from joining in with the critical tone of emails, by pointing out some positive progression in specific areas of Output 30.
- Making suggestions and prompting questions to formally consider different ideas, such as Eddie's alternative idea of investigating machine downtime.
- Making suggestions for alternative objectives or Six Sigma targets rather than strictly adhering to the DMAIC steps.
- Pointing out the negative effect of these emails to other managers during informal conversations and encouraging them to take an alternative approach.
- Not emailing at all.

According to Manville *et al* (2012), the structured Six Sigma DMAIC methodology cannot adequately address the complexity of changing relationships and conversations in teams, which restricts the learning process. Stacey (2011) suggests the belief in achieving predictable outcomes through structured programs such as Six Sigma assumes managers are, "well informed and competent enough" (p.481). Stacey (2011) goes onto describe

the consequences of persisting with this understanding when unpredictable outcomes inevitably emerge through changing conversations.

> "When the inevitable surprise comes, then this view leads to a search for who to blame" (p.481).

Interpreting my experience of Output 30 confirmed that following the Six Sigma DMAIC steps did not result in achieving the forecasted outcome and Kelvin became the scapegoat. The restrictive structure of the DMAIC 'control' step contributed to prompting a premature decision to cancel Output 30 and focused on Kelvin as an incapable manager.

On this basis, managers can adopt the practice from my new DMAIR model (chapter nine, section 9.3.1, figure 9.2). The notion of decision making at the 'control' step is replaced with an approach to 'redefine' forecasted targets, so managers have the flexibility to adapt to iterations of conversations and emerging change. As shown in the transport initiative, the flexibility of redefining the scope prioritises further conversations over decision making in order to let change unfold (Chia, 2014).

De Wit and Meyer (2002) propose a planned approach of management intervention to achieve organisational change. This was reflected in the national Six Sigma program which consisted of an expanded leadership structure and formal conversations focused on comparing progress against measurable data, based on an approach of "forceful intervention" (Linstead *et al* 2004, p.426). However, even with significant investment in resource, the outcomes of the national teams could not be influenced by Six Sigma leaders to achieve forecasted targets.

Formal conversational relating broke down during national initiatives, shown by an example during the visual dashboard project. This resulted in the equipment not being used and a significant financial investment being wasted. The failure of the initiative started with Six Sigma managers (Frank and Wayne) blocking conversations at formal meetings when legitimate concerns about equipment reliability were raised by Walter. Frank ignored his concerns and shifted the conversation towards the next initiative (PPO).

This approach led to what Isaacs (1999) calls an "advocacy war" (p.212), where there is a breakdown in communications. Frank assumed managers could and should control the effective utilisation of the visual dashboards by directly instructing operators to use them, irrespective of reliability issues. He was so adamant in his assertion that he could only hear Walter as missing this point. On this basis, Frank did not enquire about the consequences of a lack of reliability, such as reduced confidence in using the equipment.

Managers in the group started to lose interest as they came to recognise that their concerns about resolving the reliability issues were not being adequately discussed. In practice, as interest at formal meetings reduced, the conversations diminished to a point where they eventually ceased and the visual dashboards were not used at all.

Managers should pay greater attention to conversations and avert blocked interaction by encouraging participants to raise these types of concerns at formal meetings. They can

enhance their practice by shifting those repetitive or blocked themes of conversation through enquiry, to seek to understand a different point of view (Isaacs, 1999).

A practice of enquiry in order to attempt to understand others and prompt further conversation is proposed by Stacey (2011), where managers can, "repeatedly ask why people are saying what they are saying" (p.478). This empathetic quality of listening and enquiring through open questions would have demonstrated formal interest and challenging others would have prompted feedback from operators to improve reliability.

I also learned from interpreting my own conversational relating during unsettling circumstances in the transport initiative. The data for transport costs compiled by Harry did not make sense to local managers, but at the same time, Gary expressed his anxiety about conducting a financial analysis to compare the results.

> "I can't work it out and I can't say I've done this stuff before".

Stacey (2011) suggests a practice for managers to become aware of this type of conversational relating. The focus should be promoting further interaction to facilitate emergent change rather than participate in a futile exercise of trying to control the outcome.

> "The key role of managers is their participation in those conversations and their facilitation of different ways of conversing" (p.478).

I recognised that Gary was becoming increasingly unsettled so I tried to reassure him by enquiring about his uncertainty through, "the art of asking genuine questions" (Isaacs 1999, p.188). We exchanged views about the value of continuing his financial analysis to provide a comparison with the formal Six Sigma data and uncovering possible errors.

Demonstrating empathy and trust allowed ongoing conversations which improved the sense making between us (Zou and Lee, 2016). Without Gary's financial analysis, transport suppliers would have been excluded on the basis of incorrect data. A management approach of genuine enquiry uncovered errors which were corrected and this understanding enabled continued negotiations with all suppliers.

On reflection, I recognised my own bias and anxiety during the latter stages of the transport initiative, when I blocked further conversations with TS3. My emotional reaction was based on an inability to cope when SW (TS3) unexpectedly rejected what I considered as a preferential opportunity to gain the contract. My anxiety was underpinned by the uncertainty of having no contracted transport supplier. This manifested itself in my attempt to regain a degree of control by communicating solely with TS2.

Although TS2 did emerge as the new supplier and exceeded the Six Sigma target, my bias prevented further negotiations with TS3 and the possibility for even extra savings. Managers can become self-aware of bias as they advocate their own views and ensure a balance by adopting an open-minded approach of ongoing enquiry (Isaacs, 1999).

8.5.3 The Quality of Holding Anxiety.

Mellat-Parast (2011) suggests that attempts to achieve planned change through stretching targets causes personal anxiety, which restricts creative thinking. According to Stacey (2011), managers can experience anxiety during unsettling conditions, such as formal expectations to achieve unrealistic targets as part of a planned change program.

> "Stretching targets and placing people under stress in the belief that this will make them try harder" (p.479).

Rather than making managers try harder, this approach was shown to cause anxiety during the national initiatives which diminished the opportunities for conversational relating and possibilities for emergent change. Stacey (2011) suggests these feelings cannot be eliminated, but trust between participants can assist in coping with anxiety by creating further possibilities for, "fluid conversation in which people are able to search for new meaning" (p.479). I paid attention to what was promoting or destroying trusting interaction and the impact of anxiety during the implementation of Six Sigma initiatives.

Six Sigma does not adequately address anxiety amongst managers as the prescribed DMAIC model is designed with the intention of guiding rational decisions based on data to achieve forecasted targets (Raja Sreedharan and Raju, 2016). My interpretation rejects the direct correlation of making rational decisions based on data as the findings highlight anxiety as a significant factor in contributing to unpredictable outcomes. Unachievable Six Sigma targets imposed by senior personnel induced anxiety in participants. This approach contributed to managers undermining initiatives and making irrational decisions, which led to detrimental outcomes.

According to Martinez Leon *et al* (2012), relationships can contribute to negative team dynamics and the resulting anxiety can contribute to the failure of Six Sigma programs. Further interpretation from Output 30 uncovered William's reluctance to participate which stemmed from his anxiety, due to the lack of trust in the Six Sigma team leader (Kelvin). The machine speeds at William's site were used as an example of operating below the 'best practice' Six Sigma target. Kelvin shared this information with senior personnel without William's knowledge, which he described to me as, "underhand". This mistrust contributed to William's anxiety as senior personnel perceived his site as failing the target, whilst he knew it was unrealistic to meet the forecasted machine speeds. As a result, William did not participate at formal meetings and his mistrust of Kelvin contributed to engaging in shadow conversations and undermining Output 30.

Isaacs (1999) recommends an approach of genuine enquiry between team members and this practice could have assisted in reducing anxiety through honest discussions. William would have felt empowered to explain the specific reasons for his sites lower machine speeds. The highly complex product designs were specific to his site, which limited the production machine speeds to levels which were below the Six Sigma target. Promoting open discussions would have highlighted that using one generic, national target to provide a comparison across all sites was too simplistic, as it was unrealistic to achieve at

William's plant. Encouraging ongoing conversations would have considered a need for bespoke Six Sigma targets at each site, according to the complexity of products being manufactured.

Managers can reflect on their interaction and use an approach of trust, empathy and enquiry, which in this case would have reduced William's anxiety and encouraged him to participate. His expertise in manufacturing complex products would have been valuable to the Output 30 team, so managers can learn from this case to promote inclusion.

Anxiety amongst participants in the national Six Sigma teams grew from increasingly threatening formal language to achieve unrealistic targets. A lack of trust in senior personnel developed as harmful consequences unfolded, such as personnel leaving the business which prompted shadow conversations. Managers can become aware of their underlying anxiety and minimise their participation in shadow conversations in order to mitigate possible consequences such as a façade of formal compliance (section 8.5.1).

Adopting a management practice of open discussions, greater trust and empathy in the national teams would have promoted a formal atmosphere of enquiry between all participants rather than senior personnel continuing to strongly advocate their own views (Isaacs, 1999). Exploring new ideas in a trusting environment was evident in the retailer initiative (section 8.5.5), which assisted managers to cope with anxiety by encouraging ongoing conversations and team collaboration (Gutiérrez Gutiérrez *et al,* 2009).

With regard to leading future Six Sigma teams, managers can become aware that anxiety can contribute to premature and irrational decisions which can have detrimental consequences. This was highlighted by interpreting David's (director) action during the PPO initiative (chapter five, section 5.4.1) to ensure all sites carried out planned preventative maintenance (PPM) on production machines. On reflection, his email communication to carry out PPM procedures was intended to improve machine reliability in order to increase output and customer service levels. However, in his anxiety to ensure total compliance he issued a very explicit instruction to comply with the exact starting time for each PPM slot, without stipulating any flexibility or compromise.

> David: "These [fixed PPM time] slots have to be seen as more important than your most important customer".

David strongly advocated his opinion to gain compliance rather than balance his views by enquiring about the possibility of detrimental outcomes at different sites (Isaacs, 1999). Based on his instruction, products which were actually in the process of being manufactured on machines were stopped at the exact PPM starting time. As a consequence, some orders consisting of multiple units were only partially completed, which adversely customer deliveries, both from an on time and in full perspective (OTIF). However, local personnel were too anxious to contravene the formal instruction and continued to follow it, irrespective of customer orders being late or short. David's anxiety and premature decision led to an unintended, emergent and detrimental outcome as customer service levels dropped below the targeted OTIF level of ninety five percent.

Coping with anxiety would have facilitated a management approach of listening, enquiring and encouraging local autonomy. This would have allowed a flexible PPM starting time which would have negated the detrimental outcome. If local managers had the authority to rearrange the start times by a short period, the specific order in progress could have been completed on time and in full and so customer service levels would have been maintained. Managers can adapt their practice when leading teams to consider the possible consequences of their formal instructions and expectations, particularly when they feel anxious, or under pressure. This case demonstrates that managers can take an alternative approach to following a 'best practice' Six Sigma target, by coping with anxiety through listening and adopting a flexible approach of promoting local autonomy.

The transport initiative demonstrated a scenario where managers can learn to develop their ability to cope with anxiety by slowing down on decision making, as shown in Figure 8.4. Interpretations brought back my thoughts at the time, which uncovered my premature reaction to the tension and anxiety during a vote for individual supplier preferences. I felt that Gary would work more productively with his preferred choice of TS3 as the transport supplier, but I felt too anxious to disagree with Len based on his experience of financial appraisals, so I voted for TS2.

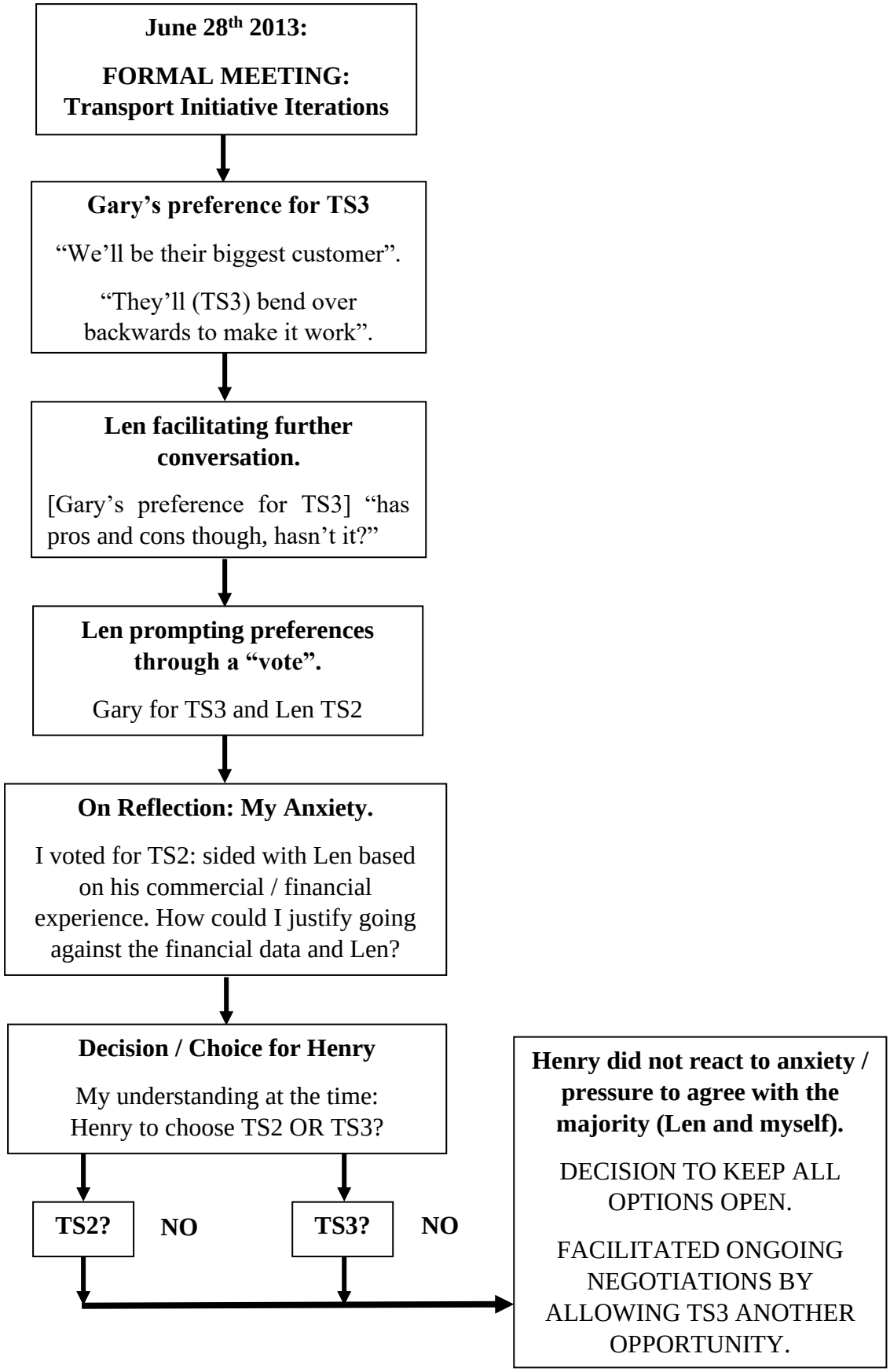
Managers can learn from comparing my inability with Henry, who coped more effectively with anxiety when he was also prompted for his vote by Len. I felt certain at that precise moment, that Henry's role as a decisive leader left him with the mutually exclusive options of choosing TS2 or TS3. I had a strong feeling that he would be compelled to agree with Len's experience and go with the majority of the group by choosing TS2. This decision would have concluded the project and the financial savings gained at that time would have been the final outcome.

To my surprise, rather than making a decision based on the growing tension, pressure and anxiety, Henry did not vote for TS2 or TS3. His approach followed Stacey's (2011) recommendation to keep all options open and facilitate further conversations, which he describes as a "quality action" (p.481). Henry delayed a decision by encouraging further negotiations with TS3 to assess whether they could meet additional savings. This demonstrated his ability to not react to the tension or feel rushed into a decision, but rather to trust the participants to continue negotiations.

Managers can learn from our contrasting approaches and adopt Henry's practice of coping with anxiety by creating the possibility for further, unfolding conversations. Unexpectedly, TS3 did not take this opportunity, but Henry's management practice facilitated an unpredictable option for further negotiations with TS2. Through ongoing conversations, TS2 made new proposals to match a redefined target, which unpredictably resulted in greater savings than the original Six Sigma forecast.

Henry's approach of letting change happen (Chia, 2014) is shown in Figure 8.4. A practice was adopted to cope with anxiety by slowing down on decision making and prioritise ongoing conversations which facilitated the emergence of TS2.

Figure 8.4. Transport Initiative: Coping with Anxiety by Slowing Down on Decision Making.



The perspective of complex responsive processes of relating provides a recommendation for managers to develop their reflexivity to recognise and deal with their own anxiety and that of others (Stacey, 2011). Managers can become self-aware of growing anxiety, which should encourage them to slow down and reflect on possible consequences. Taking an approach of coping with anxiety by enquiring through ongoing and trusting conversations with others can become the priority, rather than reacting to tension by making decisions (Isaacs, 1999).

I learned from Henry's ability and changed my approach to reflect and slow down on decision making in the subsequent retailer initiative (April 25th 2015). Section 8.5.5 (and Figure 8.6) interprets my changing practice in more detail, where I developed my ability to avert premature decisions when under stress. Learning from my previous experience allowed me to trust the team to continue interaction rather than compiling micro-managed Six Sigma project plans. The emergent outcome was unpredictable, but beneficial to the business and promoted committed participation.

Managers can adopt this practice to cope with their anxiety by accepting unknown outcomes and trust in the self-organising amongst participants to facilitate emergent, unfolding change (Stacey, 2011). Interpretations from the transport and retailer initiatives demonstrated the benefits of adopting a management practice of promoting ongoing conversations. Instead of following the structured Six Sigma DMAIC methodology, participants coped with anxiety by slowing down on decision making and prioritised an approach of adapting to changing conversations and conditions.

8.5.4 The Quality of Diversity.

According to Stacey (2011), positivist theories of planned change focus on team members sharing commitment to the same vision through, "working together harmoniously in cohesive teams" (p.480). Gutiérrez Gutiérrez *et al* (2009) propose that teams can achieve forecasted targets through a shared commitment of working with change programs such as Six Sigma. However, Albliwi *et al* (2015) calls for further research into real outcomes which are impacted by the diversity of relationships between team participants.

My Six Sigma training promoted an understanding of capable managers positively influencing collaboration and consensus amongst team participants to achieve forecasted targets (QCG, 2003). In contrast, Stacey's (2011) theory of complex responsive processes of relating takes a paradoxical perspective of diversity amongst teams.

> "If members of an organisation have nothing in common at all, then obviously any kind of joint action is impossible. However, if they conform too much then the emergence of new forms of behaviour is blocked" (p.480).

Stacey (2011) proposes that diversity is inseparable from conflict, as deviance through subversive activity undermines current power relations and creates possibilities for emergent change. I focused on the diversity of group dynamics during Six Sigma

initiatives and whether changing patterns of relating contributed to maintaining the status quo, or created the possibility for emergent change.

From initial insights into my experience, the transport initiative pointed to a high degree of consensus amongst the local managers, which contributed to the deliberate choice of TS2 as the new supplier. Further reflection challenged my initial understanding by uncovering the impact of diversity from Harry's imposed inclusion, which contributed to the process of unpredictable emergent change. Diversity was unsettling as local managers undermined Harry's expertise and the escalating conflict culminated with his exclusion. However, these factors also contributed to changing conversations and the unpredictable, but beneficial emergence of TS2 as the new supplier, as shown in Figure 8.5.

The initial conflict was based on the local managers understanding their group as 'in' and Harry as 'out', as he was an externally based Six Sigma project leader. The divergence between the two groups was shown by Henry's disparaging comment that Harry's inclusion was, "thrust on us". This divisive opinion gave an impetus for further iterations of shadow conversations, which contributed to undermining and excluding Harry.

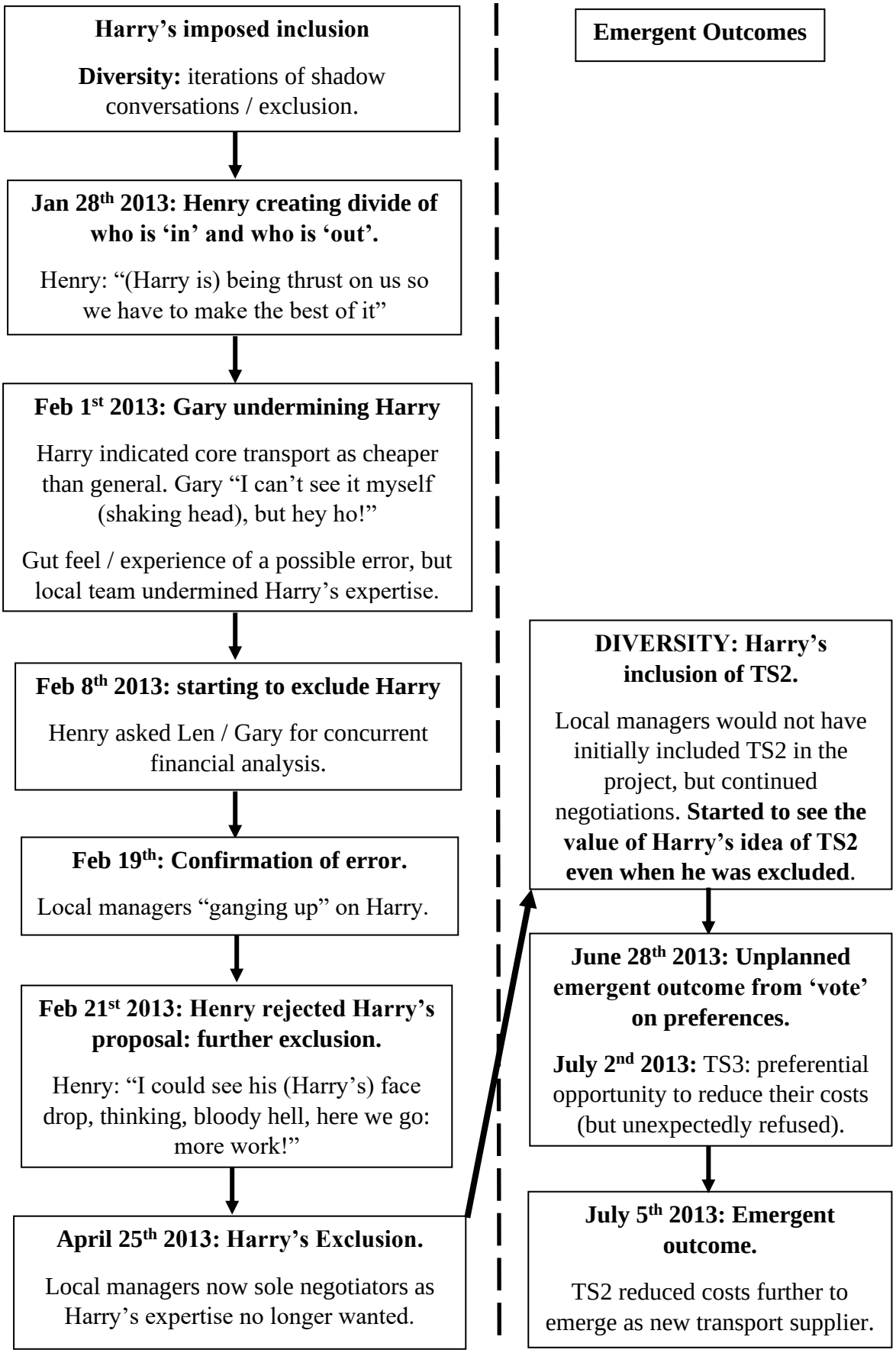
Harry's cost analysis to compare the use of 'core' vehicles compared to 'general' transportation followed the Six Sigma structure of making decisions based on quantitative data (Antony *et al,* 2004). He assumed the data provided proof to justify the choice of one supplier, but the 'gut feel' of local managers raised the possibility of a financial error and a need for further investigation. However, the local managers did not cooperate effectively with Harry as they resorted to unilateral advocacy of reinforcing their opinion without sufficient enquiry (Isaacs, 1999).

Harry also took a position of forcefully advocating his initial recommendation based on incorrect financial data. This resulted in local managers diverging as a group and subsequently engaging in 'ganging up' against him by covertly conducting a concurrent financial analysis. The shadow conversations amongst local managers culminated in Harry's exclusion based on a shared understanding that they did not require his expertise. Managers can use this insight to reflect and adopt an approach of genuine openness by enquiring with all participants, as described by Isaacs (1999).

> "Enquiry means looking into what you do not yet know, what you do not yet understand, or seeking to discover what others see and understand that may differ to your point of view" (p.188).

Figure 8.5 provides an overview of the transport initiative, which outlines the impact of diversity, as TS2 unpredictably emerged as the new supplier. It was difficult to recognise at the time that Harry's diversity contributed to beneficial emergent change. On reflection, the local managers would have only considered TS1 and TS3, so Harry's inclusion was actually instrumental in TS2 being considered at all. Although it was not formally acknowledged, the local managers eventually understood the value of Harry's diversity as TS2 were not omitted from ongoing negotiations, even when he was excluded.

Figure 8.5. Transport Initiative: The Impact of Diversity on Emergent Change.



The local managers initial preference for TS3 was changing as relationships developed through ongoing face-to-face conversations with personnel from TS2 (SK and JW). The unpredictable emergence of TS2 could not have occurred without the changing conversations, including shadow themes, which were prompted by the diversity that Harry brought to the group.

Stacey (2011) clarifies the significance of deviance and shadow themes of conversation regarding emergent change. He also acknowledges that managers cannot create change by deliberately promoting deviance or shadow conversations in their legitimate roles as these scenarios cannot be planned, manufactured or controlled. However, Stacey (2011) suggests managers can become aware of the consequences of their engagement with others, particularly when their interaction prevents change.

> "It means paying attention to how what they are doing may be collusively sustaining the legitimate themes organising experience, so making change impossible" (p.480).

Managers can become aware of their interaction in the moment, which allows them to contribute with diverse ideas, rather than blocking further interaction. Len's suggestions in the transport initiative demonstrated his ability to advocate new ideas, which facilitated further conversations (Isaacs, 1999).

> "Advocacy means speaking what you think, speaking for a point of view" (p.188).

According to Isaacs (1999), the challenge for managers is balancing the relationship between advocacy and enquiry, which is easier said than done.

> "Stating clearly and confidently what one thinks and why one thinks it, while at the same time being open to being wrong" (p.188).

Len demonstrated the practical benefits for managers to become aware of balancing the relationship between advocacy and enquiry. There was a feeling of originality and eccentricity from his ideas and suggestions. Advocating his ideas without reservation sparked further conversations, but he was also prepared to listen and change his opinion.

An original suggestion was investigating the possible benefits for the transport company (TS2) to use the site as a central hub for some of their other external, unconnected customers. Len's new idea did not get out of control as it was constrained by opinions from others, such as discussing the possible risk of actually reducing the site's own customer service level. Len's new way of operating the transport fleet was accepted, but with a caveat of limiting the amount of the external vehicles allowed on site. The balance of advocacy and enquiry ensured financial savings from the project, but also protected the site's customer service level (OTIF target above ninety-five percent).

Managers can become aware of balancing advocacy and enquiry in order to promote ongoing conversations with diverse opinions. The benefits were shown through an emergent outcome of TS2 as the new transport supplier, which improved customer service and enabled significant financial savings.

Isaacs (1999) recommendation of advocating opinions whilst adopting an attitude of enquiry was also demonstrated during enthusiastic engagement in the retailer initiative. Welcoming a wide range of personnel such as machine operators encouraged them to raise their diverse views in formal and informal environments rather than strictly adhering to the Six Sigma DMAIC steps. This facilitated a diverse range of new ideas being discussed on the shop floor, which is interpreted in more detail in section 8.5.5.

Although there were challenging opinions, discussions and friction, it did not escalate to the level of confrontation which blocked conversations in the national teams. Managers can reflect on their practice and encourage participants to raise and listen to diverse ideas whilst becoming open to unpredictable change. The practical benefit was shown in the retailer initiative as new ideas were discussed and practically tested at the time which led to an unpredictable outcome of improving manufacturing efficiency across the site.

8.5.5 Unpredictability and Paradox.

Six Sigma promotes an understanding of capable managers following the prescribed DMAIC steps to influence teams and achieve forecasted outcomes. Cocks (2014) suggests that structured systems assist managers in influencing teams to change from the current state to a planned outcome. Brown and May (2010) suggest a direct correlation between strong, capable leaders utilising planned programs to achieve forecasted change.

Stacey (2011) proposes that long-term forecasts to attempt to control outcomes are pointless and advises against the widespread adoption of planned change programs.

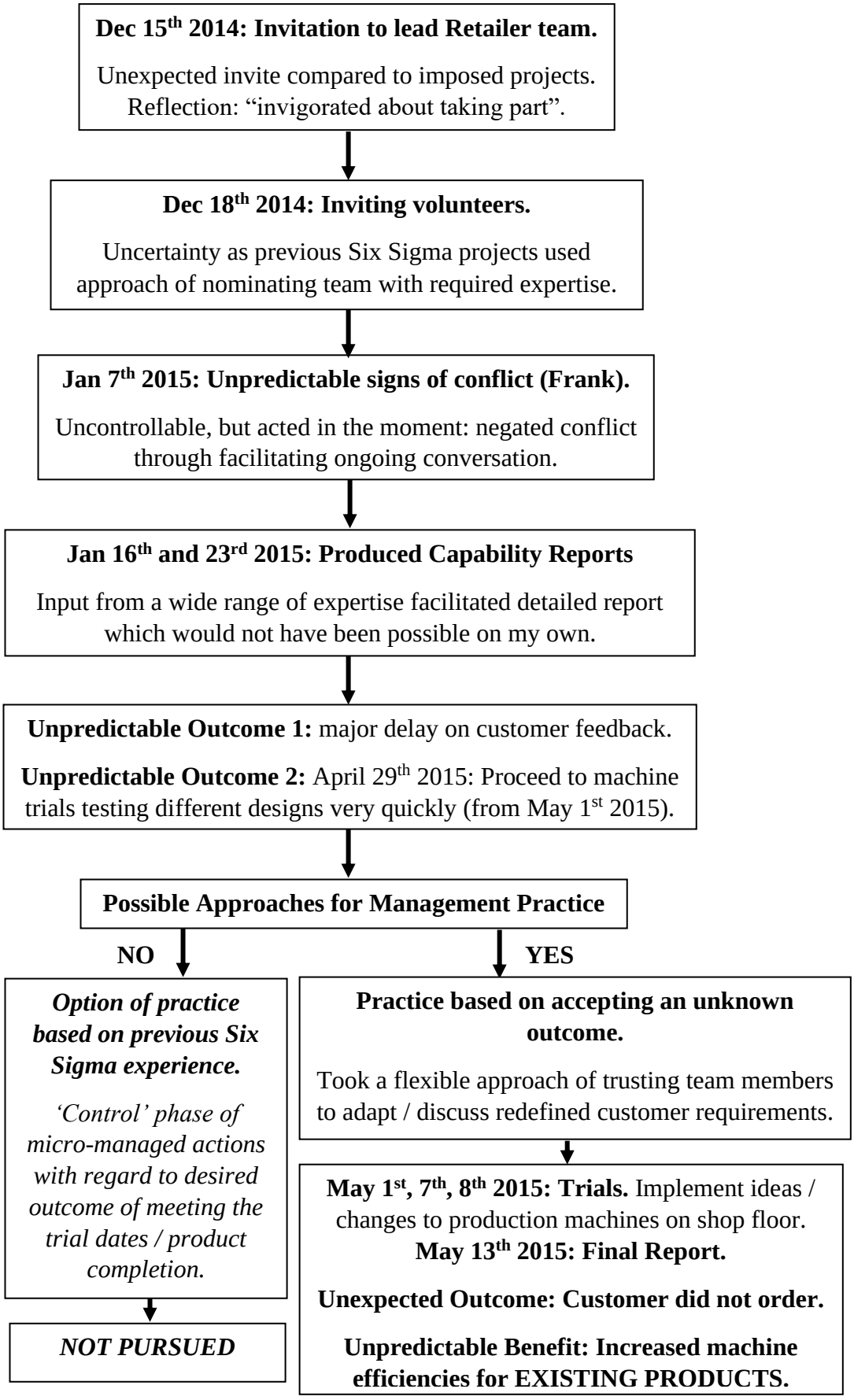
> "Putting a stop to many initiatives and abandoning control systems" (p.482).

However, in terms of management practice, Stacey (2011) suggests this unpredictability "does not make action futile or impossible" (p.481). The proposal for managers is becoming aware of their interaction which contributes to unpredictable change, or blocks it. Managers already act and then deal with the consequences during organising, so the recommendation is developing an awareness to keep options open for as long as possible by facilitating ongoing interaction. From the perspective of Stacey's (2011) theory, organisational life is paradoxical, where managers take action and feel in control, whilst unknown, emergent outcomes demonstrate a lack of control. Therefore, managing is a process of:

> "Continually rearranging the paradoxes of organisational life" (p.483).

Figure 8.6 represents an overview of the retailer initiative with respect to how the team adapted to unpredictable, changing customer requirements whilst coping with the paradox of feeling in and out of control at the same time. Rather than relying on my Six Sigma training to follow the prescribed DMAIC steps, I learned from previous experience and adapted my management practice towards accepting unpredictable outcomes by trusting in self-organising amongst the team.

Figure 8.6. Retailer Initiative: Coping with Unpredictability and Paradox.



Managers can gain insights from my feeling of enthusiasm at the time, due to being invited to lead the retailer project, which contrasted with being imposed as a team leader in the national initiatives. Although I felt a sense of security from being asked to lead the team, I also felt uncertain about taking a different approach of inviting volunteers which included machine operators. I was anxious as I could not control whether enough personnel would volunteer in order to provide sufficient expertise to address the retailer requirements.

Managers can learn from my experience of feeling in and out of control at the same time and be reassured as participants were committed, enthusiastic and engaged in team conversations. The specialist expertise of the machine operators triggered new ideas and facilitated ongoing conversations when the retailer unexpectedly changed their requirements. Although we were all unsure of the next steps, the unrestricted approach of not strictly adhering to the DMAIC 'control' phase encouraged machine operators to raise possible solutions to revisit the changing retailer requirements and redefine the target. In addition, their expertise allowed them to translate ideas into tangible results through practical testing on the production machines.

Managers can learn to cope with unpredictable situations such as the unexpected, initial signs of conflict with Frank at the first formal meeting. I could have strongly defended my position as team leader, but learning from previous experience allowed me to understand that taking this approach would block interaction. I listened to his frustrations and negated confrontation by encouraging further conversations.

I recorded my initial feelings of anxiety at the time, but also reflected on the transition from the initial tense exchange to actually enjoying the conversations over course of the meeting. Managers can reflect and adopt this approach as it allowed further, buoyant, free-flowing conversation amongst the group which facilitated exploration of new solutions for the retailer.

Gutiérrez Gutiérrez *et al* (2016) outlines the benefits of teamwork through consensus but that didn't immediately transpire in the retailer initiative, as shown by the friction with Frank. Progress was made as conversations continued in the face of uncertainty which exhibited challenging opinions, but also collaboration by adapting to the changing retailer requirements. The breadth and depth of findings from the cumulative efforts of the group allowed me to compile a detailed project report which I could not have achieved on my own. Managers can develop their awareness that team collaboration through a balance of advocacy and enquiry (Isaacs, 1999) can achieve this type of tangible and substantial outcome.

I was surprised by the long delay after the proposal was put forward to the retailer and even more so when they subsequently wanted product trials and deliveries in the next few days! Stacey (2011, p.481) suggests that surprise is inevitable and "inseparable from creativity" as managers cannot know what outcomes will emerge, but also recommends that this should not incapacitate their actions.

I was initially frustrated and anxious about attempting to meet the retailer deadlines. However, I took time to reflect on whether to pursue my previous, structured Six Sigma approach consisting of the DMAIC steps, meeting agenda's, actions and measures which promote a feeling of certainty and clarity (Da Silveira and Sousa, 2010). An example of a structured meeting agenda from the manning level initiative on Dec 4th, 2013 is shown below.

- Six Sigma Team Improvement Initiative (Optimum Manning Level Project).
- Define (5 minutes).
- Measure (10 minutes).
- Analyse (15 minutes).
- Improve (20 minutes).
- Control (10 minutes).

However, managers can develop their awareness that strict adherence to the DMAIC steps did not correlate to achieving forecasted outcomes. Adhering to this approach resulted in not pursuing potentially beneficial outcomes from exploring unplanned opportunities, such as Eddie's alternative idea in Output 30. The restrictive structure of attempting to control outcomes contributed to a lack of freedom to adapt, which resulted in multiple cancellations in the national Six Sigma initiatives (section 8.5.1 and figure 8.2).

Stacey (2011) proposes an alternative perspective of control, which:

> "Has to be understood in a different way" through taking a form of, "relating itself, that is mutual constraint" (p.482).

Through critical reflection and learning from Henry's wise qualities in the transport initiative (section 8.5.3), I decided against reverting to my training of implementing micro-managed actions aligned with the DMAIC 'control' step (QCG, 2003). I was inspired to adapt my management practice towards a flexible approach of participating in ongoing discussions with the team at every opportunity, as shown in Figure 8.6. This approach allowed the team participants to adapt to the changing retailer requirements and meet the very tight timescale for delivery.

Interaction on the shop-floor allowed direct intervention in the vicinity of the production machines by operators, who felt comfortable to share new ideas in their every-day environment. Conversations were lively and invigorating, even during tea breaks, which contributed to an understanding of how to work together on the next steps. By considering the findings from the retailer initiative, managers can develop their ability to bring these types of informal conversations into formal meetings. This practice facilitated the exploration and implementation of unplanned opportunities, which provided unpredictable, but beneficial outcomes.

Continuing with interaction amongst team members without detailed actions and timelines felt stressful as I didn't feel in control. However, encouraging conversations allowed participants to develop changing solutions and the products were delivered on

time and in full. A pragmatic approach of testing ideas on the production machines in the retailer initiative replaced the generic 'improve step' in the DMAIC model with a revised and more specific practice to 'implement and adapt'. Managers can become aware of this approach through my new DMAIR model, which is outlined in chapter nine, section 9.3.1, figure 9.2.

An unpredictable outcome emerged when the formal intention of gaining orders from the retailer did not come to fruition. Although this was unexpected and felt disappointing, managers can gain valuable insights from this case as the effort and resource was not wasted. Improving machine efficiencies for the retailer unexpectedly applied to an existing range of products, which were already being manufactured on site for other customers. Therefore, a management practice of adapting to changing product designs and requirements unexpectedly improved the overall manufacturing efficiency and customer service levels at the site.

Interpretations from the transport initiative also uncovered the benefits of embracing unpredictability and paradox by adapting to changing circumstances. The initial preference for TS3 gave a feeling of control at the start of the initiative, but changing conversations during Harry's imposed inclusion gave a feeling of being out of control. Stacey (2011) suggests managers can cope with this potential feeling of incompetence by continuing to act without knowing outcomes and adopting a practice of allowing change to emerge.

> "This way of thinking encourages one to pay more attention to what one actually does as one holds the position of not knowing long enough for the new to emerge" (p.481).

Negotiations continued with suppliers to continually redefine and improve the financial target, which contrasted with using the DMAIC control step to signal the end of the project. Keeping options open through conversations facilitated ongoing change up until the last meeting, where TS2 unexpectedly emerged as the new transport supplier and the original Six Sigma savings target was exceeded. This demonstrated an approach for managers to develop their understanding by embracing a process of unpredictable "changing" whilst continuing to participate, rather than attempting to control "change" (Weick and Quinn 1999, p.382).

Interpretation from the national teams uncovered the ability of experienced managers (Eddie and Len) to grasp the possible consequences of radical unpredictability. At the start of two Six Sigma initiatives, Eddie and Len felt that the forecasted targets were unlikely to be achieved and shared their opinions as shadow conversations. Managers can develop their ability to pay attention to potentially useful predictions, which was shown by Eddie's comment at the start of Output 30.

> Eddie: "If I'm brutally honest, it's (Output 30) destined not to do anything".

Len also raised concerns that a national Six Sigma forecasted target might not come to fruition, regardless of coercive formal instructions to participate, such as, "get on the bus or you don't".

> Len: "You can convince yourself and probably others in the room yesterday that if we pull together it can happen. Part of it will, but will it bridge that gap between plan and actual? Doubtful. To be honest, we don't know, that's the honest truth, but you can't say that".

The importance for managers to pay greater attention was shown as the predictions from Eddie and Len were closer to the actual outcomes than the Six Sigma forecasts. However, they felt unable to legitimately raise these concerns in formal meetings, due to the possibility of confrontation with senior personnel and potentially harmful consequences. Therefore, managers can develop their skills of enquiry during informal, or shadow conversations and raise these predictions formally, in order to explore concerns and alternative ideas.

Managers can promote a safe, formal environment by encouraging a balance between advocacy and enquiry (Isaacs, 1999). They can encourage diverse views, whilst genuinely listening and developing their ability to be open to changing their opinion. Managers can embrace unpredictable outcomes (Tsoukas and Chia, 2002; Parker, 2000) and the paradox of feeling in and out of control by facilitating further conversations, whilst holding their position of not knowing long enough to allow change to emerge (Chia, 2014; Stacey, 2011).

The research findings and interpretations enabled conclusions in chapter nine, which address practical aspects of changing management practice to work creatively with organisational change programs such as Six Sigma. In addition, the conclusions contribute to the broader theory of emergent change, whilst highlighting possibilities for further research.

Chapter 9. Conclusion.

In this chapter, I outline my changing management outlook and practices, whilst acknowledging the advantages and limitations of researching through at-home ethnography (Alvesson, 2003). My contribution to management colleagues and organisational change has challenged the positivist implementation of Six Sigma. However, I have also uncovered possibilities for encouraging participation and working creatively with Six Sigma by revising the DMAIC methodology into my new DMAIR model (section 9.3.1, Figure 9.2).

The theory of complex responsive processes of relating (Stacey, 2011) is translated as a relevant perspective for managers working with my new DMAIR model. Contributions to the broader theory of emergent change are provided, with a summary of the findings based on the original research objectives (sections 1.2 and 8.1.1). The chapter concludes by outlining the intention to encourage further thought, reflection and research.

9.1 My Changing Management Outlook and Practices.

My changing management outlook and practices are based on interpretations from lived experience, as outlined in chapter eight. Proposals are not intended to be a recipe for best practice or a guide to influence teams, as this would contradict a processual perspective which espouses unpredictable, emergent change. Propositions are indicative of learning to develop my outlook and practices, in order to engage more effectively with organisational change through Six Sigma. The intention is providing useful recommendations for practitioners or researchers which resonate with relevant elements of their own involvement in organisational change programs such as Six Sigma.

i. Encouraging a process of volunteering.

Instead of nominating participants, I now encourage volunteers for Six Sigma teams as my experience of the retailer initiative demonstrated a greater sense of engagement. Asking potential participants if they wanted to participate made them feel valued and promoted a committed approach to participating in conversations amongst the team.

ii. Engaging with diversity.

As demonstrated in the transport initiative, the inclusion of an external specialist caused friction. On reflection, this was valuable to the process as it provoked conversations which

would not have occurred between local managers, as there was too much consensus. I have learned that a diverse approach of including specialists, whether that be external or internal, can prompt new opinions and ideas which can be beneficial for emergent change.

For example, interpretations from the retailer initiative demonstrated the value of having machine operators as core participants in Six Sigma teams, as this approach promoted conversations based on their expertise. The cumulative effect of the ongoing iterations between participants contributed to tangible manufacturing improvements. In contrast, Output 30 demonstrated a lack of new ideas as managers strictly adhered to the Six Sigma DMAIC methodology as best practice, which culminated in cancellation.

iii. Redefining Six Sigma targets.

Attempting to influence outcomes through adhering to initial conditions of a forecasted Six Sigma target restricted the flexibility of managers to adapt to emerging outcomes. Revising the DMAIC model facilitated a flexible approach of redefining the forecasted targets, which promoted trust in participants by encouraging self-organising.

The new DMAIR model is outlined in section 9.3.1 and illustrated in Figure 9.2. This model moves away from the language of predict and control associated with Six Sigma, by encouraging teams to adapt, redefine and explore emerging and possibly beneficial opportunities. I learned from my constructive experience in the transport and retailer initiatives, where the forecasted target was continually revisited and redefined, which allowed the team to adapt to changing conversations and customer requirements.

iv. Encouraging a trusting environment.

I have changed my approach during Six Sigma initiatives by making all participants aware that formal meetings should be clearly understood as a safe environment to openly share any thoughts, ideas and concerns. The intention is promoting engagement in formal meetings in order to minimise shadow conversations which can escalate and undermine initiatives, as shown in the Output 30 and national teams.

Clarifying a safe environment in the retailer initiative encouraged a wide range of diverse opinions during self-organising, such as challenging and adapting forecasted Six Sigma targets. This flexible approach contrasted with the façade of compliance in the national teams, where diminishing conversations stifled diverse opinions and ideas in formal meetings. Underlying anxiety from the fear of harmful consequences was exemplified by managers leaving the business, which promoted a shared understanding of avoiding conflict by doing just enough to comply, known as ‘playing the game’.

I adopt an outlook and practice of promoting flexible and open agendas, which are less restrictive than my previous Six Sigma training (QCG, 2003). The intention is promoting ongoing conversations as a priority over strictly adhering to restrictive meeting agendas or forecasted Six Sigma targets. The retailer initiative demonstrated this approach of

trusting participants to investigate multiple solutions for changing customer requirements rather than micro-managing actions. Self-organising on the shop floor was significant in meeting the retailer requirements, without formal meeting locations or agendas.

v. Promoting collaborative and challenging teamwork.

In contrast to an approach that strives for consensus in Six Sigma teams, collaboration is encouraged through challenging, open and enquiring questions in formal meetings to prioritise ongoing conversations. The cumulative outcome from collaborative conversations in the retailer initiative was more beneficial than any individual action. Progress developed from conversations where participants constrained any conflict through challenging but collaborative opinions, which facilitated emergent change.

vi. Paying attention and adapting to unpredictable emergence.

My interpretative framework (chapter two, section 2.4.4) has facilitated a new management outlook of genuinely paying attention during my participation with others. This does not mean that I refer to the framework in the detail outlined in the research, but as a new way of thinking when I participate in formal, or informal interaction. For example, becoming aware of free-flowing or blocked conversations has improved my ability to facilitate formal meetings. I developed my ability to recognise a lack of interaction and use open questions to ask why people are saying what they are saying, which prompts conversations (Stacey, 2011). I engage team members at formal meetings who are starting to feel excluded, rather than risk their participation in critical shadow conversations, which was shown to undermine initiatives. I cannot formulate plans to achieve Six Sigma targets, but sharing my framework with other practitioners has raised awareness of change as unpredictable and emergent.

Research has developed a self-awareness of my anxiety and how building pressure can lead to premature and irrational decisions. This allows a management practice of slowing down on decision making and reflecting on possibly detrimental consequences, which facilitates ongoing interaction to keep options open rather than trying to control outcomes. This type of "quality action" (Stacey, 2011 p.481) creates possibilities for emergent change, as shown in the retailer initiative.

I have adopted a practice where all participants are made aware during the formation of the team that the emergent outcome will differ to the Six Sigma forecasted target. This practice removes any feeling of incompetence as a manager when unpredictable outcomes inevitably emerge (Stacey, 2011; Suchman, 2002). An approach of adapting to unpredictable, emergent change reassures participants of their useful contribution, regardless of the outcome and enables them to safely raise any concerns. If this approach had been adopted with local managers where Six Sigma initiatives were described as 'relentless', the outcomes would have been more beneficial than capable practitioners leaving the business.

vii. A humble and empathetic outlook.

Living life as enquiry (Marshall, 1999) has facilitated a humble management outlook of putting Six Sigma in perspective compared to genuinely significant issues such as illness amongst family and friends. An empathetic approach enabled conversations to gain a greater understanding of personal issues regardless of being inside or outside of work.

Understanding the relative insignificance of Six Sigma reduced my previous feelings of incompetence and anxiety if targets were not met. Accepting that emergent change did not equate to a lack of management ability was starkly demonstrated in section 7.4.1, where the head of a hierarchical martial arts structure could not influence outcomes. I have learned to accept unknown outcomes and understand the validity of many versions of the 'truth'. A balance of advocacy and enquiry (Isaacs, 1999) allowed a management approach of expressing views whilst listening and encouraging conversations, with an attitude of being open to understanding the opinions of others.

9.1.1 At-home Ethnography: Advantages and Limitations.

There was no manipulation of the environment for research purposes such as planned formal interviews or focus groups, as my research was conducted whilst I went about my everyday organising. The benefit of being a practising manager rather than being perceived as a researcher was gaining insights from trusted colleagues in an unrestricted, normal atmosphere. An outside researcher with access for the sole purpose of investigation could not participate in such trusting conversations as my relationships with colleagues developed over many years.

Trust was shown in my relationship with Len as he critically questioned the accuracy of forecasting targets, whilst not feeling safe enough to express this view in formal meetings. Being a colleague allowed me to uncover this sort of sensitive information, as Len could trust my confidentiality and therefore had no fear of recriminations. This degree of trust could not be developed by an outsider researcher during a relatively short period of study. In addition, interacting with others solely for the purposes of research can prompt participants into altering their responses to what is expected (Vickers, 2019).

Research during daily organising allowed time to reflect in the moment and conduct accurate recording of the empirical material, as there was no restriction regarding access or timescales. Four years of constant participation in a wide range of Six Sigma initiatives provided significant breadth, but also depth of negative and positive experiences. The balance of my findings would not have been possible over a shorter period or studying fewer cases. For example, investigating the national teams in isolation would not have provided such original and rich insights compared to interpreting my whole experience.

I am transparent about limitations, such as my inherent personal bias as a local practising manager. If the study had been conducted by a senior director, or a newly appointed Six

Sigma team leader, they may have provided a different, subjective account and multiple studies may provide an opportunity for further research (section 9.5). I reflected and minimised my bias by being open-minded to alternative views from the relevant literature in chapter two. In addition, I was keen to reflect on challenging views from my supervisory team, such as the requirement of developing a robust research methodology. I sought views from a wide range of colleagues, family and friends when I was at work or at home, which stimulated a self-awareness of being mindful about my potential bias.

A sense of balance and openness to accepting unpredictable research findings was facilitated by having no control over the timing or content of unfolding conversations. Participating in normal conversations meant any prediction regarding research outcomes was impossible as the empirical material was so unpredictable, extensive and complex. I had no conditions from my employer to use the findings, which meant there was no need to feel biased towards any audience or intended conclusions.

I struggled to organise and rationalise such a large amount of empirical material as the 753,000 words contained such a diverse range of topics, conversations, feelings and thoughts. In contrast, an outside researcher may have narrowed the scope of the study and restricted their recordings around a more defined, specific objective. Using a reduced amount of empirical material would have been more beneficial in terms of reducing the research timescale and complexity. However, this limited approach would not have adequately captured my lived experience in terms of illuminating the breadth, depth and richness of my reflexive interpretations over four years.

9.2 Contribution to Management Colleagues.

My research has contributed to management colleagues who have taken the time to reflect and recognise that their interaction can contribute to unpredictable Six Sigma outcomes. As an involved manager (Introna, 1997) my direct participation was perceived as a credible approach by managers. I could sense the research genuinely resonated with their experience, such as feeling anxious when outcomes did not meet forecasted targets. The study has contributed to management colleagues as they have adopted new approaches and practices, as summarised below.

i. Company values.

My experience of company ‘core values’ as a tick-box exercise for auditing purposes (chapter one, section 1.1.1, p.6), prompted me to engage with other managers. I questioned whether company values were useful and enquired about their relevance in change initiatives, in the context of inspiring participants to think about their interaction. Managers expressed that company values were important as a guide for how we conducted ourselves, but had not given any thought about any practical use. I asked about

their relevance or the possibility of using them usefully in change initiatives such as a new appraisal process. For example, I enquired about particular values such as ‘integrity’ and what this would actually mean in practice to employees.

Managers initially struggled to think of practical applications as the word ‘integrity’ was not easily understood or used during normal conversations. Over several weeks, our discussions resulted in supplementing ‘integrity’, with the phrase, ‘doing the right thing’. A greater understanding was uncovered by discussing and agreeing a list of associated tasks for all the values which were relevant for specific job roles. This approach attracted managers to include the values to promote ongoing discussions during Six Sigma initiatives and implementing a new appraisal process.

ii. Implementing a new appraisal process.

Changing the appraisal process to include company values promoted discussions with all employees, such as machine operators. As per the previous example, ‘doing the right thing’ was discussed rather than ‘integrity’, which made sense to machine operators as it felt applicable to what they were already doing. This approach encouraged a new way of thinking about operating their machines, such as completing and recording the daily safety checks on emergency stop buttons. Discussing the unpredictable outcomes from treating the task as a tick box exercise provided a greater understanding that completing a full practical test was essential to keeping others safe as well as themselves.

This management practice contrasted with the previous appraisal system, which used quantitative measurement of machine performance to assess what operators should be doing to meet the forecasted target. Managers and machine operators provided positive feedback from implementing the new appraisal process. Unexpected conversations stimulated ideas about improving the work environment, production efficiencies and reducing waste through starting new, local Six Sigma teams.

iii. Local Six Sigma teams.

Managers adopted new approaches associated with my research, such as focusing on local Six Sigma improvement teams. Managers engaged a wider range of volunteers, such as maintenance engineers, product designers and machine operators. Beneficial outcomes emerged from diverse conversations associated with new ideas, such as engineers suggesting improvements based on their expertise of improving machine reliability.

In contrast to following the defined timescale of Six Sigma national initiatives, local managers started ongoing, weekly continuous improvement (CI) meetings, without a forecasted end date. One of these new initiatives was focusing on raw material waste reduction, which emerged from group interaction based on the new DMAIR model (Figure 9.2). CI waste teams consisted of ongoing meetings rather than stipulating an end date, in the same way as embedded initiatives such as regular Health and Safety reviews.

Conversations about positive experiences from formal Six Sigma meetings attracted other managers to implement similar initiatives across the business. This was especially pleasing as a preference for local Six Sigma teams was expressed during informal conversations between myself and William (chapter five, section 5.3.2). This alternative approach to imposed, national Six Sigma teams with generic targets encouraged a real sense of committed participation and produced tangible manufacturing improvements.

iv. Implementing Six Sigma training.

The research findings were significant in justifying ongoing training for managers and Six Sigma teams. During Six Sigma 'Green Belt' training for managers, I added my research findings, including the importance of accepting and adapting to unpredictable outcomes. A new approach of working with my revised DMAIR model (Figure 9.2) allowed the flexibility of redefining forecasted targets, so the teams could continue to explore new opportunities for improvement. 'Yellow Belt' training for machine operators encouraged a "grass roots" approach as suggested by Strang and Jung (2009, p.49), which was also supplemented with my research findings. Operators understood the link between conversations and emergent, unpredictable change and adopted the DMAIR model (Figure 9.2) whilst participating in local Six Sigma teams.

v. Promoting face-to-face engagement.

Implementing appraisals was part of a drive to prioritise face-to-face interaction, which was uncovered as a valuable insight for building relationships in the transport initiative. Managers engaged in weekly Six Sigma continuous improvement (CI) team meetings in conjunction with daily production reviews to promote participation from all departmental managers. In addition, the manufacturing team implemented a new daily walk around the factory (08:30am) to visit each of the production machines to encourage informal discussions with operators and engineers. Informal suggestions provided new ideas for improving safety, quality and production in local Six Sigma teams.

Managers have gained an appreciation of their contribution to emergent change through changing conversations. Therefore, face-to-face conversations were encouraged through open discussions at formal meetings and also through informal interaction on the factory floor. Suggestion boxes were installed around the plant, which resulted in ideas for local Six Sigma initiatives from individuals who preferred to remain anonymous.

9.3 Engaging with Planned Organisational Change.

Even the most optimistic view of the national Six Sigma teams could not perceive cancellations as a positive outcome. The reality was wasted time, energy and resource,

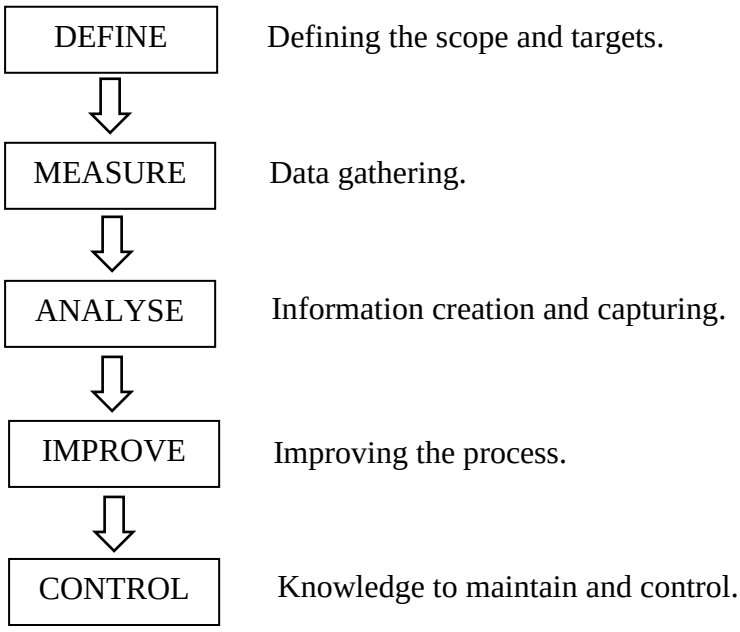
including valued members of staff leaving the business. If my conclusions were based solely on this experience, I could not have proposed working constructively and creatively with Six Sigma as a program for planned organisational change. However, learning from other teams such as the transport and retailer initiatives provided an opportunity for engaging constructively with planned organisational change. Interpreting my experience where teams naturally adapted and redefined the forecasted targets facilitated a basis for revising the Six Sigma DMAIC model.

9.3.1 Working with Six Sigma: A Revised DMAIC Model.

Reflecting on my positive and negative experiences of Six Sigma initiatives uncovered an opportunity to revise the original DMAIC methodology shown in Figure 9.1. Rather than totally dismantle the original model, some phases were maintained, such as 'measure' and 'analyse'. These phases provided familiarity for managers to conduct Six Sigma meetings and encouraged managers to promote ongoing conversations.

Although the DMAIC methodology provided a structure for Six Sigma initiatives, my interpretations also highlighted areas where the model felt restrictive. For example, the 'define' step consisted of a narrow, forecasted target which restricted exploration of unplanned opportunities. When forecasted targets were not met, the 'control' step contributed to increasing pressure to make decisions, which led to premature and irrational judgements, such as cancelling Output 30 and the national initiatives.

Figure 9.1 Six Sigma Linear DMAIC Methodology.



I propose a new DMAIR model shown in Figure 9.2, where the original linear steps are replaced by a circular model, with an external 'define' phase, indicating the ability for managers to revisit and continually adapt the process as changing conversations unfold.

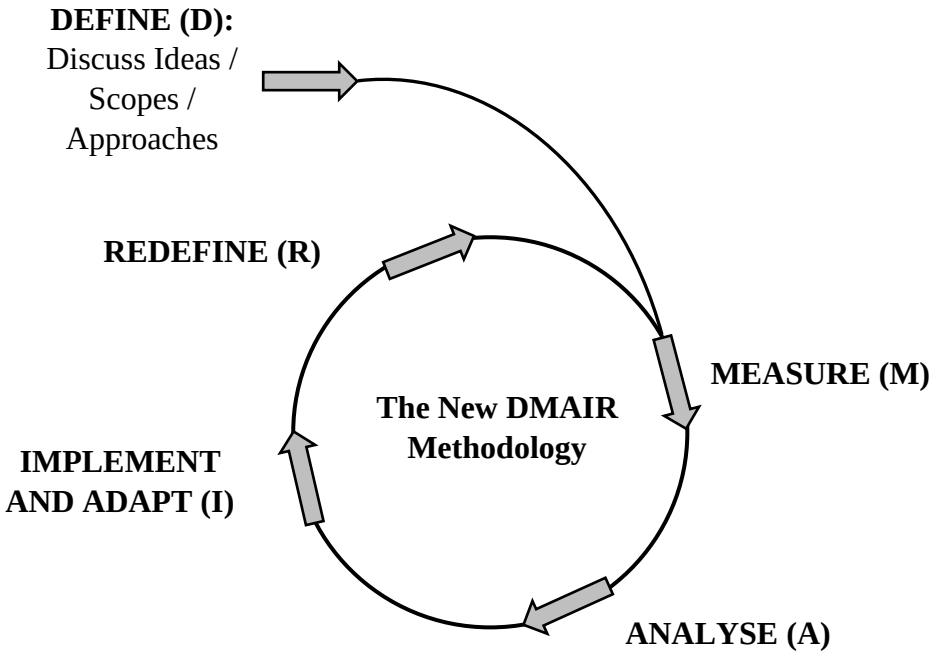
The DMAIR model retains the define (D) step, but the difference to the original methodology is allowing a wider scope of forecasting or 'guesstimate' of ideas rather than a quantitative target. In addition, the DMAIR model incorporates 'redefine' (R) as part of the circular process, which replaces the 'control' (C) phase. Redefine encourages participants to adapt the original guesstimate as self-organising between participants facilitate the exploration of emergent opportunities through changing conversations.

The retailer initiative demonstrated the advantage of not strictly following one, quantifiable forecasted target as espoused in the DMAIC model. Redefining a broad target was useful for prompting the team to adapt to changing customer requirements through formal and informal discussions. Ongoing interactions included ideas to design and manufacture a range of products which could be developed further. The subsequent 'measure' (M) phase consisted of a broad scope of monitoring production efficiency and cost to satisfy the changing customer requirements, rather than a strict quantifiable target.

The transport team also used a 'guesstimate' to define an aspirational financial target, which was redefined as necessary. Continually redefining the target encouraged further negotiations, which contributed to improving the amount of savings compared to the original target. This flexibility contrasts with the DMAIC approach of attempting to control the outcome of matching the forecasted target to signal the end of the project.

Replacing the 'control' step with 'redefine' (R) relieved the pressure on managers rather than feeling forced to make decisions. The new DMAIR model (Figure 9.2) enabled the exploration of new ideas and opportunities from conversations during self-organising. Outcomes did not get out of control in the transport or retailer initiatives as redefining the targets were also self-constrained by changing and challenging conversations.

Figure 9.2 A New Six Sigma DMAIR Methodology.



The original DMAIC phases of ‘measure’ (M) and ‘analyse’ (A) remain in the new DMAIR model as they were shown to naturally encourage ongoing conversations during the transport and retailer initiatives. However, the DMAIC ‘improve’ (I) step has been revised as it infers change will happen, without direction of how this can be implemented. In contrast, the new DMAIR model encourages the practical implementation of new ideas, whilst adapting to unknown outcomes through the ‘implement and adapt’ (I) phase. This reflected the approach during the retailer initiative, where practical testing and adapting new manufacturing processes culminated in solutions for the customer.

Using the DMAIR model is complemented by translating Stacey’s (2011) theory for managers in order to facilitate an alternative way of thinking about planned organisational change. Understanding the contribution of the complex responsive processes of relating encouraged managers to pay attention during their participation amongst others, whilst accepting and adapting to unpredictable outcomes.

9.3.2 Working with Complex Responsive Processes of Relating.

Stacey (2011) describes complex responsive processes of relating as unashamedly theoretical, but research has provided insights which are relevant for management practice. There was a degree of reticence from managers during training when I introduced Stacey’s (2011) theory as they initially presumed an academic preference over practical application. However, the practical findings and interpretations from conducting research as an involved manager changed the perception of a wide group of colleagues.

When I asked managers if they could forecast what might happen in one day, week or month ahead, there was an overwhelming understanding and agreement that predicting the future was impossible. Managers came to acknowledge that the language used in Six Sigma training of predicting and controlling forecasted targets is a fantasy, in the same way as predicting the future.

Ongoing conversations stimulated an understanding and acceptance that unpredictable change will always occur, which is unknown and unknowable. To capture the essence of the theory in a practical and memorable way, I quoted Stacey (2011):

> “Changes in conversations are changes in organisations” (p.365).

This phrase resonated as memorable and realistic with managers who had participated in Six Sigma teams as it rang true with their experience. Through open questions and discussion, they increasingly reflected on how conversations went well or badly in Six Sigma meetings and how those iterations contributed to unpredictable, emergent outcomes. This understanding started to shift their management approach from their previous Six Sigma training (QCG, 2003), where capable managers are assumed to influence teams through following the DMAIC steps.

Managers grasped the practical link between Stacey's (2011) theory and my new DMAIR model (Figure 9.2), which encouraged them to explore unplanned opportunities through ongoing conversations whilst acknowledging unpredictable outcomes. Managers adopted a new way of working creatively with Six Sigma by promoting conversations through the flexibility of the DMAIR model, rather than strictly adhering to the restrictive DMAIC steps.

Understanding Stacey's (2011) theory assisted managers with their sense of well-being during new initiatives as they started to consider themselves as useful to the emergent process, regardless of the outcome. Any feelings of anxiety or incompetence were minimised by awareness and transparency that unknown outcomes would occur which they cannot predict or control, just like our future. Illuminating Stacey's (2011) theory encouraged other management practitioners to engage creatively with Six Sigma through committed participation, whilst understanding change as unpredictable and emergent.

9.4 Contribution to Emergent Change.

Cumulative interpretations from the extensive range of Six Sigma initiatives over four years contributed to the broader theory of emergent change. Original research through the lens of complex responsive processes of relating (Stacey, 2011) was operationalised through a combination of using at-home ethnography (Alvesson, 2003), living life as enquiry (Marshall, 1999) and understanding through the hermeneutic circle (Introna, 1997).

My study makes an original contribution by researching as a practising manager, through the lens of Stacey's (2011) theory. I add to perspectives of emergent change which have been substantiated by summaries or case studies which demonstrate the outcome, but do not provide the detailed contribution of the changing patterns of relating (Wiggins and Hunter 2016, p.19). My study addresses the recommendations for further research regarding a more detailed approach to understanding the contribution of relationships and interaction to emergent change (Korica *et al,* 2015; Chia, 2014; Hughes, 2011; Sandberg and Alvesson, 2011).

New interpretations from my research uncovered a detailed understanding of how change emerges through changing conversations, from an insider's perspective. This adds to processual perspectives by uncovering deeper insights into how unpredictable emergence occurs through team dynamics and changing interaction between participants.

My research findings complement and add to existing theories of emergent change (Chia, 2014; MacKay and Chia, 2013; Tsoukas, 2005; Tsoukas and Chia, 2002; Weick and Quinn, 1999) which propose organisations are a property of change, but do not highlight the detail of how this emerges. I focused on the detailed practice of how the changing patterns of relating between participants contributed to unpredictable emergent change

during the specific context of implementing planned Six Sigma initiatives (Antony *et al*, 2018; Albliwi *et al*, 2015, Kumar *et al*, 2008).

The findings from my research are a useful addition to current literature as it was conducted over a significant period of four years as a practising manager. Emergent change was investigated through a diverse range of Six Sigma initiatives during my normal management practice amongst others. The wide-ranging investigation contributed more extensively to the theory of emergent change in comparison to relatively isolated case studies, which are evident in recent literature (Wiggins and Hunter 2016).

For example, an isolated view of the national teams may have portrayed the positivist management approach of implementing Six Sigma as incompatible with embracing unpredictable emergence. However, my research as an involved manager provided new findings from uncovering aspects of Six Sigma which were compatible with creative participation during unpredictable emergent change. My experience uncovered the ability to work constructively with Six Sigma by accepting the unpredictable nature of emergent change, which is demonstrated through developing an original DMAIR model (Figure 9.2).

New perspectives of how emergent change arises through changing patterns of relating only became apparent through using my interpretative framework and becoming genuinely reflexive about my experience (Introna, 1997). The majority of what managers do is not detailed planning through Six Sigma, but ongoing organising through changing interaction, which contributes to unpredictable, emergent change. My research illuminated the detail of how changing patterns of relating contributes to emergent change, through a combination of everyday self-organising, as well as formal Six Sigma meetings.

The research objectives originally outlined in chapter one (section 1.2, pp.8-9) were revisited in section 8.1.1 and they are used in the following section to provide a summary of findings.

9.4.1 Summary of Findings.

A key research objective was operationalising Stacey's (2011) theory of complex responsive processes of relating through further development of his methodological approach (section 1.2, point iv, p.9). This was achieved through adopting a robust research methodology of at-home ethnography (Alvesson, 2003) and learning through lived experience (Introna, 1997), which was addressed in chapter three.

The remaining research objectives which were also listed in section 8.1.1 (p.140) are shown below with a summary of the relevant findings, including opportunities for further research as outlined in section 9.5.

i. Explore an alternative way of understanding organisational change which contrasts with the positivist notion of implementing the prescribed phases of Six Sigma.

- All organisational outcomes were unknowable and unpredictable, but always emerged, regardless of attempts to influence teams by managers using the prescribed Six Sigma DMAIC steps.
- Unpredictable outcomes emerged from changing patterns of relating between participants. Strictly following the prescribed Six Sigma DMAIC steps did not correlate to achieving forecasted outcomes. This structured approach also contributed to conflict and in some cases, exclusion of managers.
- Shadow themes of conversation contributed to undermining Six Sigma initiatives, which had a greater effect than the positivist notion of managers influencing teams to achieve forecasted targets.
- The assumed use of power from senior personnel to ensure compliance with the Six Sigma DMAIC steps was ineffective and led to a façade of compliance rather than encouraging committed engagement.
- Self-organising amongst participants contributed to emergent change, which contrasted with the restrictive nature of the prescribed Six Sigma DMAIC steps.
- Changing patterns of relating contributed to emergent change, regardless of being inside or outside of formal Six Sigma meetings. Unpredictable emergent change was also demonstrated in normal life experiences, as outlined in section 7.4.1.
- The transport and retailer initiatives demonstrated that managers coped by working creatively with Six Sigma, by accepting unpredictable outcomes. Learning from this experience has facilitated the development of a flexible practice of encouraging self-organising through a new DMAIR model (Figure 9.2).

ii. Examine how decisions are made through the prescribed initial conditions of the Six Sigma DMAIC methodology in an attempt to predict and control. The intention is to reveal how unexpected outcomes emerge through self-organising and unpredictable iterations of interaction.

- Managers attempted to follow the Six Sigma methodology based on the language of predict and control. Influencing teams to achieve forecasted outcomes through following the DMAIC steps have been shown as false.
- Strict adherence to DMAIC initial conditions with a narrow scope of forecasted targets have been shown to restrict exploration of unplanned opportunities for emergent change.

- Participants continued to self-organise, outside of the prescribed initial conditions through ongoing interaction. Six Sigma initiatives cannot be totally controlled, even by senior personnel. This approach was demonstrated as ineffective by attempts from company directors and even the head of a martial arts organisation (section 7.4.1).
- Unpredictable emergent change occurs through self-organising as participants continue to interact, rather than rely on rational decisions based on the Six Sigma DMAIC steps, as shown in the transport supplier initiative.
- Self-organising through interaction contributed to emergent change which did not meet the Six Sigma blue print, but was shown as beneficial in the transport and retailer initiatives. Outcomes did not get out of control as participants enabled, but also constrained the process through diverse conversations.
- Premature and sometimes irrational decisions were taken by following the prescribed DMAIC steps which ends with 'control'. Anxiety was a significant factor in the detrimental outcomes from the Output 30 and national Six Sigma initiatives as senior personnel felt pressurised to make decisions, which culminated in wasted time and resource.
- An original approach to working creatively with the Six Sigma was developed by revising the original DMAIC steps into a new DMAIR model (Figure 9.2). Analysing longer-term outcomes from using the new DMAIR model could provide an opportunity for future research.

iii. Illuminate how practising managers make sense and attempt to cope during the implementation of planned organisational change programs.

- Participants have been shown to make sense and cope in many ways, ranging from adopting a façade of compliance, leaving the business or participating with committed engagement.
- Making sense was achieved during self-organising, through engaging in interaction with others, regardless of attempts from senior personnel to reinforce the Six Sigma DMAIC methodology. This was shown through a façade of compliance, where participants 'played the game' whilst continuing to interact outside of formal meetings through shadow conversations.
- Practising managers have demonstrated that they can make sense and go further than coping, by enjoying the natural experience of exploring unplanned opportunities outside of the stipulated Six Sigma targets. The new, flexible DMAIR model (Figure 9.2) facilitated redefining targets rather than attempting to control outcomes and negated the restrictive steps of the original Six Sigma DMAIC methodology.

- In trusting, safe environments, managers participated in free-flowing conversations and collaboration included challenging the Six Sigma targets, which created possibilities for emergent change. However, when excessive power was attempted through hierarchical status, it led to conflict and exclusion of participants.
- Practising managers coped with anxiety of dealing with unknown outcomes through a reflexive approach of learning from their experience in order to promote ongoing conversations. This practice has been shown to be beneficial for managers during the retailer initiative, as they felt useful even when the outcome did not meet the intended target. Their ongoing enthusiastic engagement, whilst making sense of change as unpredictable and emergent proved to be beneficial for the business in conjunction with their own sense of identity and well-being.

Interpreting my experience is intended to be useful for managers to cope with implementing organisational programs such as Six Sigma, if the findings, interpretations and proposals resonate with their own specific circumstances. I have highlighted the possibility for managers to participate creatively with Six Sigma programs by embracing unpredictable emergent change and adapting accordingly through a new DMAIR model (Figure 9.2). The findings have also contributed to the broader theory of emergent change, whilst providing a useful foundation for those who are intending to conduct further research, which is outlined in the following section.

9.5 Further Research.

A proportion of empirical material was rationalised in order to focus on the specific scope of researching organisational change and management practice, whilst learning from my lived experience. Unused material from my personal journal could be assessed for further research.

- Comparing and contrasting the planned and emergent outcomes from a range of other ‘best practice’ change initiatives which were outside of the Six Sigma program. An example was the change from local, autonomous departments such as finance and IT into a centralised service centre (CSC).
- A longer-term investigation of the work-life balance as managers interact and cope with implanting planned organisational change programs such as Six Sigma. My personal experience provided insights into the significance of all conversations, both inside and outside of work. Longer term interpretation could uncover further detail perspectives regarding the impact of changing ‘personal’ patterns of relating as managers implement planned change programs in the working environment.

New research may focus on developments which emerged at the latter stages of my study.

- A processual comparison of the longer-term outcomes of Six Sigma initiatives which utilise the new DMAIR model (Figure 9.2) versus the original DMAIC methodology (Figure 9.1).
- The changing nature of team interaction as a result of Covid-19 and the impact of participants adhering to social distancing. Research could compare and contrast the current priority of using of remote video conferencing technology as a preference over face-to-face conversations.

It was impossible to record all conversations as an individual practising manager, so collaborative research with others may provide further insights as suggested in section 9.1.1. Multiple personnel at various sites could use personal journals to concurrently record their experiences. Uncovering subjective views and interpretations from several individuals could add to the current findings from a broader range of perspectives.

Further research could also investigate empirical material gathered by different hierarchical levels of personnel, to compare and contrast subjective interpretations. Findings from a range of personnel, such as the CEO, directors, senior managers, first-line managers and machine operators could provide insights into differing perceptions which are rooted in the identity of each individual. Research could uncover how and why those individuals justify their own perspective, uncovering 'multiple versions of the truth' relating to emergent organisational change and management practice.

My research contributes to understanding emergent organisational change and management practice in the particular context of implementing Six Sigma improvement initiatives. The study adds to the current academic understanding and provides useful proposals for reflexive practitioners, whilst encouraging additional perspectives from further research (Parker, 2000).

> "I am not searching after truth here, just trying to argue that the organisational world can be framed in different ways" (p.219).

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