On a Wing and a Prayer:
Stories of the Use of Improvisation by
NEIS Businesses During the Start-up Phase.



Abstract

The focus of this study is to consider the concept of 'improvisation' as a business process used by small businesses when faced with unanticipated events. Although the business news and literature is dominated by the activities of big businesses, there is little disagreement among researchers and business commentators about the role that small businesses plays in contributing to the economic activity of Australia. The contribution that small businesses make to the economy includes job creation, competitive power, economic growth and innovation. Furthermore, there is evidence that a flourishing small business sector can assist with creating and maintaining political and social stability.

It is widely acknowledged that businesses are operating in a turbulent, unstable and at times chaotic commercial environment. Many business operators are spending increasing amounts of their time responding to unanticipated events in circumstances where there is little or no time to plan solutions or build up resources. There has been little research into how small businesses respond to such unanticipated events.

A review of previous literature showed that business operators were likely to respond to unanticipated events in one of three ways; they either ignored the event, undertook planning or they improvised. The term 'improvisation' in this context was used to reflect either the time convergence between the realisation of a solution and its implementation or the application of selected resources for purposes other than that for which they were intended. A model of the process of improvisation was developed using the elements previously described in previous studies. The model falls into three parts; pre-improvisation, improvisation and post-improvisation.

The methodology used was a qualitative process consisting of a semi-structured interviews with twenty-nine owners of small-business start-up firms, to explore their experiences with dealing with unanticipated events and to try to establish the nature of the improvisational process. It was important for the participants to tell their stories of improvisation and for the researcher to reflect their experiences in relation to the model of improvisation.

The data collected provided greater insight into the process of improvisation and a refined model evolved which better represents the experience of participants. The study confirmed that small businesses do at times, use improvisation to respond to unanticipated events. Consequently, this study has made a significant contribution to the field by extending on the work undertaken to date and by the development of a model that more comprehensively represents the process of an improvisational response to an unanticipated event, in the context of small business.

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Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma, except where due reference is made in the text of the thesis. To the best of my knowledge this thesis contains no material previously published or written by another person except where due reference is made in the text of the thesis.

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List of Figures

Figure 1	Structure of Improvisation	34
Figure 2	Levels of Improvisation	45
Figure 3	Model of Improvisation	60
Figure 4	Model of Improvisation	93
Figure 5	New Model of Improvisation	182

List of Tables

Table 1	Small Business Owners – Gender and Age	5
Table 2	Small Business - Hours Worked, Years of Operation and Employee	
	Numbers	5
Table 3	Home Based Business – Gender and Age of Owners	6
Table 4	Home Based Business - Hours Worked, Years of Operation and Employ	ee
	Numbers	7
Table 5	Supplementary Research Question Rationale	70
Table 6	Semi-structured Interview Framework	82

Table of Contents

Abstract	i
Acknowledgements	iii
Declaration	iv
List of Figures	v
List of Tables	vi
Chapter One: Setting the Scene; Small Business and it's Role in Economic Activi	ity 1
Introduction	1
Definition of Small Business	2
Demographic Structure Of Small Business In Australia And Queensland	4
Assistance for Small Business	7
Small Business Research	9
Research Aims	11
Rationale	11
Outline of the dissertation	12
Chapter Two: Literature Review: Improvisation and What Others Have to Say	14
Introduction	14
Definitions	17
Performing arts perspectives	17
Teaching and sociological perspectives	18
Medical perspectives	19
Management perspectives	19
Causes, uses and outcomes of improvisation	22
Causes	23
Uses of improvisation	24
Outcomes from the use of improvisation	25
Aesthetic Outcomes	25
Adding Value	26
Crises Resolution	29
Limitations of improvisation	31
The structure of and levels improvisation	32
Structure	33

	Knowledge	35
	Skills	37
	Circumstances	39
	Time	40
	Resources	41
	Levels	42
	Time convergence	43
Eler	ments of improvisation	46
	Intuition	46
	Creativity	48
	Bricolage	50
	Innovation	52
	Other Concepts	53
Prop	posed Model Of Improvisation	55
	Pre-improvisational	56
	Improvisation	57
	Post-improvisation	58
	Other Factors	58
Rati	onale For The Model	61
	Need for research into improvisation	63
	Research Question	65
Cha	pter Three: Finding the Way to the Stories	66
Intro	oduction	66
Res	earch Purpose And Objective	67
	Purpose	67
	Objective	67
Res	earch Question Reviewed	67
	Developing the research question	68
Res	earch Approach	71
	Choosing a methodology	72
	Chosen method	72
San	ıple	76
Data	a collection method	79
	Preparing for the interview	83

Arranging a time and place for the interview	84
Conducting the interview	85
Exiting and post interview	86
Data analysis approach	87
Data presentation approach	90
Ethics	91
Chapter Four: Looking at the Stories	92
Introduction	92
Framework of the data presentation and discussion	94
The Interviews	95
Chapter Five: Another Way of Looking at the Stories	157
Introduction	157
Pre-improvisation	157
Unanticipated Events	158
Resolutions	160
Influences	163
Improvisation	170
Action	171
Time convergence	172
Post-improvisation	174
Outcomes	175
The model revisited	178
Pre-improvisation	178
Improvisation	179
Post-improvisation	180
Bias	
Chapter Six: AndSo What?	184
Review of the study	
Limitations of the study	
Collecting the data	187
Reviewing the data	188
Future Research	191
Conclusion	193
References	10/

Appendix One: Summary of Definitions	209
Appendix Two: Summary of Research Results	211

Chapter One: Setting the Scene; Small Business and it's Role in Economic Activity

Introduction

This chapter sets the scene for the thesis. The chapter starts by considering the overall context of small business as an economic activity. It considers various definitions of small business before determining a definition for use in this thesis. The chapter then discusses the demographic makeup of small businesses in Australia and Queensland where this thesis is set. The next part of this chapter looks at what assistance small business received in Australia and Queensland. Then small business research is discussed and the aim of this thesis is presented. The chapter closes with a description of the rationale for the thesis and an outline of this dissertation.

The business news and literature is dominated by the activities of big businesses but there is little disagreement among researchers and business commentators about the vital role that small businesses play in contributing to the economic activity of any country. It is widely accepted that small businesses are critical and substantial participants in the economy of every country (Dawson, Breen et al. 2002; Stewart 2002). The contribution that small businesses make to economies includes job creation, competitive power, economic growth and innovation (Carree, van Stel et al. 2002; Syeda-Masooda 2002). Furthermore, there is evidence that a flourishing small business sector of any economy assists with creating and maintaining political and social stability (Thurik and Wennekers 2004). Many have proclaimed that small business development and growth will contribute to declining unemployment and provide the mechanism for innovation and drive economic development in the future (Audretsch 2003; Morrison, Breen et al. 2003).

Small business is a pervasive activity, one that is often taken for granted. Our day to day lives are made easier by the activities of small businesses. Few big corporations could get their products to consumers without small businesses playing their role. Car manufacturers are just as dependant on the small dealers to sell their cars as they are on the large dealers. Australia Post out-sources many of its services and uses a large number of small businesses to ensure delivery of mail. Newspapers would not get

delivered if it wasn't for the small independent newsagents. Large shopping centers contain three or four anchor stores; these are the large retailers who provide the attraction for shoppers. According to some retailers, despite their size they often pay a significantly lower rent per square metre than the other retailers. It is the smaller shops, mostly owned and operated as small businesses that pay the larger proportion of the rental income to the centre owners and so contribute to the profitability of the shopping centre.

Historically, small business has been functioning for much longer than big business. Small business started with the emergence of traders, people in the middle that facilitated the exchange of goods and services between producers of goods and suppliers of services and consumers of those goods and services. These were the first small businesses. Big businesses did not emerge until well into the Industrial Revolution when economies of scale, due to better quality and more reliable power and transportation systems, allowed businesses to grow. Even then, large businesses emerged from small ones either through growth or through amalgamations. Furthermore, the larger businesses that emerged during the Industrial Revolution were as dependent on small businesses then as are large businesses today. However, as commerce grew and spread and businesses changed in size and capacity, a distinction between a large, medium or small business became apparent. Yet this distinction remains as contentious today as it has ever been.

Definition of Small Business

Despite the powerful position held by small businesses there is little agreement on what defines a small businesse. Small businesses have been defined in a perplexing number of different ways according to national and local needs (Theng and Boon 1996; Watson and Everrett 1996). For example, in the USA a congressional committee faced over 700 definitions of what constituted a small business (Watson and Everrett 1996). In Singapore, small businesses are defined first by their sector and then by size. For example, manufacturers in Singapore are defined by the value of their assets, while service businesses are defined by the number of employees (Theng and Boon 1996). Other criteria are also used to define small businesses. Sadler-Smith, Hampson, Chaston and Badger (2003) define small businesses as being independently owned and

operated, are secondary in their industry and it is unusual for them to engage in new or innovative activities. This definition is likely to eliminate some businesses that are small by size and volume but are primary in their industry and engage in innovative activities. However, many small businesses are in fact innovative and often leaders in their field such as software developers, architects and other professionals (Dawson, Breen et al. 2002). Watson and Everett (1996) define small businesses in greater detail. They suggest that in small businesses only one or two people are responsible for important and significant decisions without the assistance of an internal expert; the small business has limited liability, and has no publicly traded securities (Watson and Everrett 1996).

For the purpose of statistical analysis the Australian Bureau of Statistics (ABS) (2001; 2003) defines small businesses as those having fewer than twenty employees. It further argues that small businesses tend to have similar characteristics such as being independently owned, with close control exercised by owners, financially dependent for capital from owners and critical decisions are generally made by the owners (Australian Bureau of Statistics 2001).

The ABS report (2001) suggests that small businesses with fewer than five employees may be considered "micro businesses". Micro businesses are further defined as having a particular characteristic that is not normally present in other small businesses in that they are often home based. Micro businesses are often known as Home Based Businesses (HBB). These businesses rarely have any employees and are located at the owners' residence (Jay and Schaper 2003). These businesses either operate at home, undertaking most of the business activities at home, or the home is used as a base with most of the business activities being carried out in the field or at clients' premises (Jay and Schaper 2003). These businesses are referred to as either businesses operating at home or businesses operating from home (Australian Bureau of Statistics 2003). In this study the ABS definition of a small business is used but, Home Based Businesses are also included.

These definitions are by no means conclusive, there are many other equally valuable definitions that through time and space have not been considered directly in this thesis. By applying this definition of small business, it becomes evident that small businesses

all have a number of characteristics that are not shared with large businesses such as lower levels of division of labour. These characteristics include the demographic profile of small businesses in Australia.

Demographic Structure Of Small Business In Australia And Queensland

It has been traditionally assumed that small businesses have limited pertinence to the wider economy, with many researchers amazed at the size and impact of small business on national economies (Jay and Schaper 2003). In terms of numbers, small businesses statistically make up a substantial proportion of a nation's business units. Until the 1970s there was a steady decline in the number of self-employed people in the western world (Carree, van Stel et al. 2002). This decline has reversed and since that time the rate of self employment through small business ownership has risen steadily across most western economies (Carree, van Stel et al. 2002).

In June 2003 the ABS estimated that there were 1,179,300 small businesses operated by an estimated 1,591,500 owners in Australia (2003). This number indicates that somewhere between 96% and 97% of private sector businesses in Australia meet the ABS definition of a small business (Australian Bureau of Statistics 2003; Morrison, Breen et al 2003). These numbers tend to be reflected across various States in relation to their respective populations(Australian Bureau of Statistics 2003). The growth rate of small businesses overall, declined during the past three years by 0.25% across Australia.

There are a number of demographic indicators in the small businesses profile. The gender and age of small business owners across Australia and Queensland is summarised in Table 1.

Table 1 Small Business Owners Gender and Age

	Ger	nder		Age (all)			
	Male	Female	-30	30 to 50	50+		
Australia	67%	33%	9.4%	58%	33.6%		
Queensland	68%	32%	9.9%	58.1%	32%		

Table 1: (Source: Australian Bureau of Statistics, 2003)

As the table, shows the make up of small business owners along gender divisions has a ratio of males to females of two to one. The ratio of male to female operators in Queensland is similar to that of the national ratio. In terms of age, across Australia and Queensland the vast majority of small business operators are between thirty years and fifty years of age, with a small number under thirty years and the balance over fifty years of age.

There are a number of operating factors that show the different components of small business in Australia. Some small businesses are operated part-time, have been operating for different periods of time and employ varying numbers of staff. The data relating to these factors is summarised in Table 2.

Table 2
Small business
Hours worked, Years of operation and Employee numbers

	Hours worked +35 -35		Years of operation				Number of employees		
			- 1	1 to 5	5 to 10	+10	0	1 to 5	5 to 20
Australia	66%	34%	13%	34%	20%	33%	56%	33%	11%
Queensland	66%	34%	13%	34%	20%	33%	59%	30%	11%

Table 2: (Source: Australian Bureau of Statistics, 2003)

As the table shows not all small businesses are operated on a full time basis. The ABS (2003) lists full-time businesses as those that operate for more than 35 hours per week

and part-time those that operate less than 35 hours. The ratio of full time businesses to part time business in both Australia and Queensland is approximately two to one. However, compared to 2001, there has been a decline in the proportion of full time businesses from 70% to 66% (Australian Bureau of Statistics 2003). The length of operation has been determined by the ABS as the number of years of continuous operation by the same owner. The figures nationally are identical to the figures for Queensland. Periods of operation of between one and five years constitute the largest group, with businesses operating for more than ten years returning similar numbers. The smallest group is those businesses that have been operating for less than one year. Small businesses are often defined by the number of employees. Table 3 shows that the vast majority of small businesses do not employ any staff and are solely owner operated. Queensland has a slightly higher proportion of businesses that do not employ any staff compared to the national level.

It has been noted previously that small businesses tend to fall into two groups, small businesses and businesses based in the home (HBB). The HBB businesses make up the largest portion of small businesses. This group represents 67% of all small businesses in Australia and since 2001 it has seen an annual growth rate of 0.4% (Australian Bureau of Statistics 2003). The distribution of age and gender in HBB across Australia and Queensland is shown in table 3 and is identical to the profile for all small businesses.

Table 3
Home based business
Gender and Age of owners

	Ge	nder			
	Male	Female	-30	30 to 50	50+
Australia	67%	33%	10.6%	56.5%	32.9%
Queensland	65%	35%	9.9%	58.1%	32%

Table 3: (Source: Australian Bureau Of Statistics, 2003)

The gender and age profile of HBBs is comparable to that of all small businesses. The data on hours worked, length of operation and number of employees for HBBs is summarised in table 4.

Table 4
Home based business
Hours worked, Years of operation and Employee numbers

	Hours worked			Years of operation			Employee numbers		
	+35	-35	- 1	1 to 5	5 to 10	+10	0	1 to 5	5 to 20
Australia	59%	41%	15%	35%	20%	30%	70%	27.5%	2.5%
Queensland	66%	34%	18%	35%	18%	28%	73%	24.5%	2.5%

Table 4: (Source: Australian Bureau Of Statistics, 2003)

Shown in table 4, more HBBs are likely to be part time, compared with all small businesses generally, on a national basis. The full-time/part-time ratio in Queensland is the same as that ratio for all small businesses in Australia. The number of HBBs that have been operating for less than one year is slightly higher than all small businesses nationally and 5 % higher than all small businesses in Queensland. There are fewer HBBs operating for over 10 years than all small businesses. By their nature, HBBs tend not to employ many staff as is indicated in Table 4, with 70% of Australia's and 73% of Queensland's HBBs employing no staff. Around 25% of HBBs employ between one and five people, and very few employ more than five.

Small businesses and particularly HBBs play a significant role in the economic activity of Australia. They constitute the largest group of people who operate businesses, are the biggest employment sector and collectively have a profound effect on economic activity by contributing approximately 33% of gross national product as a single business group (Lean 1998; Dawson, Breen et al. 2002; Jay and Schaper 2003). As a consequence of the contribution to national economic activity, it is likely that some governments would seek to provide some sort of support to foster small businesses.

Assistance for Small Business

Governments at both a Federal and State level in Australia recognise the importance of small businesses. As a result, the past twenty years has seen significant resources allocated to providing support for new small businesses (Jay and Schaper 2003). This

support has been primarily in the form of advisory agencies and also in the form of grants for the development of small businesses (Jay and Schaper 2003).

At a Federal level the Commonwealth Government provides a number of services to the small business community. One service is the provision of AUD\$60 million in 2002, to assist small business development through the Small Business Assistance Programme. This programme provides small businesses with access to information and advice through forty five service providers, a skills development programme, and a business incubator programme (Department of Industry Tourism and Resources 2004) Another service provided to small business by the Commonwealth Government is relief in the form of grants or interest rate relief for small businesses that have been adversely affected by natural disasters such as drought or bush fires. The Department of Industry, Tourism and Resources (DITR) (2004) also has a web site that provides businesses with access to a range of information on topics such as licensing, taxation and legislation.

The Commonwealth Government provides assistance for unemployed people who wish to start their own business. This programme is the New Enterprise Incentive Scheme (NEIS) and is provided through the Department of Employment and Workplace Relations. NEIS is a labour market programme that was introduced by the Labor Government in 1985. The scheme's objective is to assist unemployed people to start their own small business by providing management support and financial assistance. The managerial support consists of training in small business management and mentoring during the first twelve months of the business's operations. The financial support consists of continuation of unemployment benefits during the first twelve months of the business's operation. As part of the application process, the NEIS clients must prepare a comprehensive business plan that demonstrates the viability of their business idea.

Assistance at the State Government level consists primarily of advice and support. In Queensland this support comes through the Department for State Development and Innovation (DSDI). DSDI (2004) provides a number of services specifically for small businesses, particularly during the planning and start up phase. These services include workshops, seminars and special events for small businesses, one stop license and legislation information, and a range of publications on small business issues

(Department of State Development And Innovation 2004). There is also a Small Business Advisory Council, whose role is to advise the State Government on matters relating to small business (Department of State Development And Innovation 2004).

Small Business Research

The size of the small business sector shows it has a significant influence on economic activity. The number of small businesses indicates that owning a small business is clearly an attractive mode of employment. However, the number of businesses that have been operating for less than five years (44%) suggests that small business is not necessarily a long term prospect. The fact that both Federal and State Governments feel the need to provide support to the small business sector supports the concept that small business is a critical component of Australia's business sector of the economy. Given the prominence of small business, it is not surprising that there has been substantial research into the operation of small business.

Predominant amongst the research topics on small business has been the causes of their failure or success. Most researchers agree that business failure is defined by the discontinuance of a business (Bates 1995; Watson and Everrett 1999; Perry 2001). However, there is little agreement on the definition of discontinuance (Theng and Boon 1996). Discontinuance of a business does not necessarily mean that a business ceases to operate. Some businesses may cease in order to prevent losses and may be sold onto other owners or declared bankrupt, or may simply stop trading (Theng and Boon 1996; Watson and Everrett 1996; Watson 2003). The causes of these losses are numerous. Several researchers suggest that there are a number of traits such as poor management skills, insufficient capital or poor forecasting that contribute to the failure of small businesses (for example see Theng and Boon 1996; Riquelme and Watson 2002). One aspect that is often considered as a cause of success or failure in small businesses is the extent of planning undertaken (Georgellis, Joyce et al. 2000; Upton, Teal et al. 2001; Hormozi, Sutton et al. 2002; Perry 2002). However, there is some evidence that many small businesses plan only to obtain finance (Baker and Aldrich 1994; Baker, Miner et al. 2003).

This pre-eminent area of research into small business has resulted in numerous studies into factors that affect the success or failure of businesses linked to the concept of planning. A common saying amongst business consultants and advisors is that if you fail to plan you plan to fail (Stewart 2002). There is a powerful emphasis on planning in Western economies and deviation from the plan, or even not having a plan can be seen as heretical (Vera and Crossan 2004). A successful business is not an inevitable event, and business operators are constantly advised that planning is a beneficial activity (Anderson and Atkins 2001; Beaver 2003). Greenbank (2000) notes that there is a belief that small business owners should take a rational planned approach to starting and operating their businesses. However there is some dissent to this approach. Firstly the connection between planning and success or failure is hard to determine and difficult to quantify (Perry 2001). Secondly, the results of empirical research into the link between planning and success or failure are weak and inconclusive (Perry 2001; Stewart 2002; Ibrahim, Angelidis et al. 2004). Thirdly, the literature on planning seems to suggest that there is little planning performed by small businesses (Anderson and Atkins 2001; Upton, Teal et al. 2001; Ibrahim, Angelidis et al. 2004). This seems to suggest that there is a substantial gap between the expected behaviour of small business operators and what actually happens.

The fact that it is impossible to foresee every contingency ahead of time suggests that planning alone does not contribute to the success or failure of small businesses (Crossan, Lane et al. 1996; Sashittal and Jassawalla 2001). Furthermore, several commentators and researchers have noted that today the business environment has become increasingly turbulent, unpredictable and chaotic, making it even harder to anticipate events ahead of time (Orlikowski 1996; Brown and Eisenhardt 1997; Barrett 1998; Grzeda 1999; Poolton and Ismail 2000; Porter 2000; Augier, Shariq et al. 2001; Lewis, Palmade et al. 2002; Jabnoun, Khalifah et al. 2003; McGee and Sawyerr 2003). This instability and turbulence is causing businesses to face unanticipated events that profoundly affect their ability to operate. Consequently, business owners and managers are forced to spend a growing amount of their time resolving unanticipated events that often require immediate answers and solutions as a result of this turbulence (Garavan and Deegan 1995; Moorman and Miner 1998b; Lau, Doze et al. 1999; Anderson and Atkins 2001; Augier, Shariq et al. 2001). Of particular interest in this study is how

small businesses deal with unanticipated events, looking at what processes they use and implement.

Research Aims

Given the prominence of small business within the economic activity of Australia, the aim of this research is to gain an insight into how small businesses respond to the unanticipated events that they face. In particular, the study aims to enhance our understanding of the processes used by small businesses when they find themselves having to respond to events or changed circumstances that they had not planned for. Of special interest is the concept of 'improvisation' in the context of businesses responding to such events. The literature review will provide the foundation for the development of a conceptual model for this study to explore the processes used by small businesses in response to an unanticipated event.

Rationale

There is little empirical evidence on how small business owners respond to unanticipated events; events that cannot be planned for (Anderson and Atkins 2001). This suggests that more research into how small businesses respond to unanticipated events is needed, particularly considering the assistance that both Federal and State governments make available to small business operators. The focus of the assistance given by these governments tends to encourage planning, despite the suggestion that most small and home based businesses do not plan extensively.

In previous studies into business processes, it has been suggested that managers and business owners were often faced with unanticipated events (Augier, Shariq et al. 2001; Mitroff and Anagnos 2001; Pettigrew, Woodman et al. 2001; Bada, Aniebonam et al. 2004). Anecdotal evidence from this researcher's own business practice supports this concept. These events affected the participants' ability to operate their businesses according to their business plan, often causing a deviation from their planned intentions. It was noted that the participants responded to these events within a short time frame and mostly without forward planning. Furthermore, they utilised whatever resources

were available to hand. This suggested a business process was being implemented that was different to just being innovative or creative, or even entrepreneurial. It was clear that the participants were responding with a solution as they went along. However, the study did not determine exactly what the participants were doing. Moorman and Miner (1998b) suggest that when faced with an unanticipated event the small business operator has three choices; they can ignore the event, which few do, they can plan a response or they can improvise. That these authors argue that improvisation is used to respond to an unanticipated event suggests that a great understanding of improvisation theoretically would go a long way towards developing better outcomes for small businesses. Clearly some respond by improvising and as the following chapter shows. However, there has been limited research done on improvisation as a business process. Interest in improvisation has been developing and expanding yet the body of knowledge is still disjointed with conceptual frameworks rare (Vera and Crossan 2004). There is a need to investigate how improvisation is used by small businesses to resolve unanticipated events (Moorman and Miner 1998a; Moorman and Miner 1998b; Miner, Moorman et al. 2001; Baker, Miner et al. 2003).

Outline of the dissertation

Chapter Two, the literature review offers an insight into the concept of improvisation. The literature on improvisation covers a range of different applications of the concept, from music and the arts to medicine and management. As a consequence, a number of different definitions emerge. These definitions are explored in the next chapter, Chapter Three. Based on the definitions explored, the causes, uses and outcomes of improvisation are reviewed. This places the concept of improvisation into a practical setting by defining its role in a variety of activities. From this practical perspective, it is then possible to consider the elements that comprise improvisation and the different levels at which improvisation occurs. From this analysis a model of improvisation is proposed. The chapter concludes by arguing that the use of improvisation in a business context is a neglected area of research and that the proposed model provides a pathway through which to explore the concept. From this conclusion the guiding research question emerges.

Having reviewed the literature on improvisation in Chapter Two, Chapter Three covers the most appropriate methodology needed to conduct the study. The purpose of the study is re-examined and four supplementary research questions are developed. It is then argued that the most appropriate methodology for this study is a qualitative approach. The next part of the chapter demonstrates that a semi-structured interview is the most appropriate method of data collection. To collect the data, an interview framework is presented that outlines the interviewing process. The chapter closes with a discussion of the data analysis and its presentation approach.

The data is presented and discussed in Chapter Four. Using in the participants' own words through direct quotations from the interviews. These quotations are coded in a way that links them to the proposed model of improvisation. As each individual story is told, it is analysed against the model. In Chapter Five further data analysis is undertaken on the participants' stories, which are examined collectively for common threads that link the experiences to the model. Again the data in this chapter is coded according to the elements of the model of improvisation. As a result of this second analysis of the data, the model of improvisation is reviewed and a revised model of improvisation is presented.

The final chapter, Chapter Six draws a number of conclusions from the study. The extent to which the research question has been answered is considered. The implications of the study in relation to the theory and practice of small business management is considered as well as the implications for future research into the use of improvisation as a business process.

Chapter Two: Literature Review: Improvisation and What Others Have to Say

Introduction

The purpose of this chapter is to review the literature on improvisation and to develop a model that reflects the findings from studies to date and that reflects improvisation as a business process. This chapter will show that improvisation is a complex, pervasive and endemic business activity that has been a neglected area of research. The chapter will begin by outlining where improvisation fits within the current business field. It will show that the turbulent nature of today's business environment is making comprehensive planning and the implementation of those plans an unattractive option for today's managers. Definitions of improvisation found within the literature are then collated and discussed in four general themes. A table outlining these definitions and themes in attached as an appendix. Following the definitions, the effects of improvisation will be identified by reviewing the causes, use and outcomes of improvisation. The next part of the chapter provides a review of the structure of improvisation and different levels of improvisation that occur. Then an assessment of a number of elements that form part of the structure of improvisation will be made. From the literature review a model is developed which leads to an outline of the research questions for this study. Then a summary of the literature is presented leading to the research question.

There is little disagreement that today most businesses, organisations and firms operate in a turbulent climate (Orlikowski 1996; Brown and Eisenhardt 1997; Barrett 1998; Grzeda 1999; Poolton and Ismail 2000; Porter 2000; Augier, Shariq et al. 2001; Lewis, Palmade et al. 2002; Jabnoun, Khalifah et al. 2003; McGee and Sawyerr 2003). This turbulence exists because of changes in economic and social structures, such as the growth of globalisation, increased developments in technology and greater demands from consumers for new products (Matthews and Scott 1995; Orlikowski 1996; O'Gorman and Doran 1999; Davenport and Prusak 2000; Dyba 2000; Lewis, Palmade et al. 2002). Furthermore, there is a growing awareness of constant change, turbulent business environments and as a result more competitive markets(Cunha 2004).

Consequently, this turbulence creates an unstable climate which affects every aspect of an organisation or business operation. This unstable climate means that most businesses face constant change and uncertainty, and are being forced to look at their business environments in new ways (Bogner and Barr 2000; Yusuf 2002; Jabnoun, Khalifah et al. 2003; McGee and Sawyerr 2003; Sawyerr, Mcgee et al. 2003).

While this constant change and uncertainty is ongoing, it is not continuous, but irregular and erratic, featuring unanticipated events and crises and it is happening at a pace faster than some organisations can respond using traditional planning processes (Garavan and Deegan 1995; Moorman and Miner 1998b; Augier and Vendelo 1999; Lau, Doze et al. 1999; Pettigrew, Woodman et al. 2001). Furthermore, this constant change is forcing businesses into closer relationships that promote an integration of services between organisations. So managers and operators in facing a business environment that is more competitive and integrated are forced to develop skills that will allow them to respond effectively and efficiently to the changes that arise (Saraoglu, Yobaccio et al. 2000). Employees too are faced with constant change in how they work and what work they perform (Mallak 1998). The ability to cope, adapt and respond to the changes is a critical factor in the success of a business (Crossan, Lane et al. 1996; Brown and Eisenhardt 1997; Barrett 1998; Davenport and Prusak 2000; Miles, Snow et al. 2000; Poolton and Ismail 2000; Augier, Shariq et al. 2001; Lewis, Palmade et al. 2002). The accepted practice of planning and then implementing the plan may not be so effective in coping with rapid and unpredictable change.

Despite the turbulent nature of business, many managers and business people operate from the assumption that the future business environment is predictable and controllable and they continue to predict and plan in a traditional manner (Crossan, Lane et al. 1996). Moorman and Miner (1998b) in their study of organizational improvisation agree, by arguing that in more stable environments businesses have traditionally coped by developing strategies and business plans then implementing them. However, Orlikowski and Hofman (1997) point out that it is impractical to predict what events will impact on a business and determine how to address these events before they happen. Based on the turbulent and unpredictable nature of the business environment it is clear that despite planning, businesses face unanticipated events that can not be anticipated or even considered before they occur.

Mitroff and Anagnos (2001) suggest that a consequence of this is that many unanticipated events that businesses face are the result of making the wrong planning assumptions about future business situations. Consequently, some researchers believe that it may no longer be acceptable for businesses to develop business strategies, implement them and then wait for the results (Moorman and Miner 1998b; Saraoglu, Yobaccio et al. 2000). Volberda (1999) considers the importance of building flexibility into a business and states that extensive planning may restrict an organisation's ability to react to changes. As a result, Volberda (1999) suggests that given the turbulent nature of the business environment, planning may in fact create more unanticipated events than it anticipates. Such a dynamic is caused by unanticipated events emerging from the turbulent environment and by limiting the responses to these unanticipated events to those available as described in 'the plan'.

This turbulent environment is causing businesses to review their traditional structures and strategies and implement non-traditional approaches (Orlikowski and Hofman 1997; Grzeda 1999; Volberda 1999). When faced with unanticipated events, businesses have little time to react or are often missing information (Heath 1998; Augier, Shariq et al. 2001). The key to coping with an environment that is unstable and in a state of flux is flexibility (Burns and Stalker 1961; Barnett and Pratt 2000). Moorman and Miner (1998b) feel that few businesses do not respond at all to unexpected change. While some businesses may ignore unanticipated events, they indicate that most businesses tend to respond by improvising in some way (Moorman and Miner 1998a; Moorman and Miner 1998b). It is suggested that acts of spontaneity driven by creativity and intuition offer a solution to coping with rapid and constant change (Crossan, Lane et al. 1999; Barnett and Pratt 2000). It could be argued that resolving unanticipated events through improvisation should be a part of the business process if the businesses are to survive unanticipated events. If this is the case, then improvisation needs to be more clearly defined and thoroughly researched.

Definitions

The current research literature into improvisation has developed a number of definitions. It has been broadly argued that improvisation is a pervasive action that can be found in a number of areas including jazz music, cooking, language, relationships, building construction and sports (Bateson 1989; Mirvis 1998; Weick 1998; Moorman and Miner 1998b; Morrison and Thomas 1999; Sawyer 2000). In fact living itself is an act of improvisation. Darwin (in Mallak 1998) argues that the key to survival is not strength or intelligence, but the ability to adapt to changing circumstances, suggesting that improvisation has a place in evolution theory. Furthermore, improvisation has been the subject of a number of studies, both conceptual and empirical. These studies have covered a range of contexts where improvisation has been a factor in that field (Moorman and Miner 1998b). While each of these contexts has defined improvisation accordingly, there are striking similarities. For the purpose of considering definitional issues relating to improvisation, the contexts have been loosely aggregated into four groups; Performing Arts, Teaching and Sociological, Medical, and Management.

Performing arts perspectives

One of the contexts in which improvisation has received considerable attention has been the arts and particularly in theatre and jazz. Theatrical views on improvisation have included the idea of the exchange of the known for the unknown by allowing the theatrical environment to work for you. That is the actors respond to the audience's participation and develop the story accordingly (Spolin 1963; Knapp 1989).

The field of jazz music too has been the basis of a number of studies that examine improvisation. Schuller (1968, p378) has stated, that improvisation can be defined as "playing extemporaneously", that is to say without the support of written music. Jazz is an unplanned and intuitive art, where the practioners can not see ahead, but can look at where they have been and build on that by creating music in real time (Gioia 1988; Pressing 1988; Preston 1991; Kernfeld 1995; Toiviainen 1995). Barrett (1998, p283) on using jazz as a metaphor for a leadership model, follows this argument by stating that improvisation is the process of "trying something out, seeing where it leads". Barrett (1998) in examining the implications of improvisation in jazz on organisational

learning, suggested that jazz players steer clear of involuntary and dependable playing that replays previous sets. Jazz players, according to some observers and researchers, it seems, are happy to take the risk of getting into situations deliberately, where the outcome is unpredictable (Barrett 1998; Meyer 1998; Peplowski 1998). Then they improvise their way out of the situation. This improvisation is part of the aesthetic appeal of jazz music. It is not monotonous as the audience is never quite sure what they will hear. Improvisation within the arts, and particularly jazz music, has its roots as being regarded as an impulsive reaction to monotony (Hatch 1997). The deviation from the planned route is determined primarily by aesthetic demand.

Teaching and sociological perspectives

Another context that has attracted commentary on improvisation has been in the social sciences such as in teaching, sociology and anthropology. In teaching, expert teachers are known to enter the classroom with a defined goal, but make a number of teaching decisions that do not reflect the lesson plan, but rather the teacher's actions reflect the needs of the students at that time (Borko and Livingston 1989; Irby 1992; Cleary and Groer 1994). That is to say that the teachers react to the unanticipated events caused by student demands by introducing material not necessarily included in the lesson plan. Rynes and Trank (1999) support this view by arguing that not every event in a classroom is predictable and that teachers need to be ready to improvise as events unfold.

Studies within anthropology and sociology about improvisation suggest that improvisation occurs when people change the definition of their relationships and then rebuild them in a fast and unintended way according to their current situation (Powers 1981; Volkman 1994). When faced with unexpected change, Volkman in her study of Indonesian villagers, noted how women were willing to forsake traditional roles and paradigms and improvise in order to survive the changes (1994). Unfortunately, Volkman does not explore the construction of improvisation and therefore does not describe how the improvisation occurred or specifically what the results were of the improvisations (1994). Mirvis (1998, p586) discusses the need to practice

improvisation, that humans abilities to "make things up" are critical to our capacity to adjust to change.

Medical perspectives

The medical field too, has examined improvisation, particularly in the areas of therapy and psychology (Moorman and Miner 1998b). Many of the definitions applied are similar to those previously discussed. For example, in a book on improvisation, Nachmanovich (1990, p23) considers the use of improvisation in therapy and suggests that improvisation is "being, acting, creating in the moment without props and supports...". In a study by Embury, Guthrie, White and Dietz (1996, p22) on clinical decision making by experienced and inexperienced therapists, they described improvisation as "practise without planning". They argued that many clinical decisions are made in an atmosphere of ambiguity and consequently a degree of improvisation is necessary (Embrey, Guthrie et al. 1996). Other than to note that improvisation does occur during clinical decision making and offering a brief definition of improvisation, their article does little to contribute to the understanding of improvisation through a robust examination of the concept (Embrey, Guthrie et al. 1996). Both definitions mentioned suggest that the subjects of the study sought to resolve problems by using what their intuition and creativity produce without following a previously defined plan. In the medical context improvisation could be seen as a problem solving process that relies on intuition and creativity.

Management perspectives

There are a number of management perspectives on improvisation. However, they generally follow two main conceptual typographies; the basis of each is either time convergence or resource usage (Weick 1993a; Crossan and Sorrenti 1997; Moorman and Miner 1998a; Moorman and Miner 1998b; Ciborra 1999; Barnett and Pratt 2000; Sashittal and Jassawalla 2001). Time convergence is the amount of time taken between the conceiving of a solution to resolve an unanticipated event and the implementation of that solution, while resource usage is the way in which the available resources are

utilised. While other concepts shed light on the nature of improvisation, it is these two that provide the most comprehensive definitional material related to management.

In an attempt to extend the understanding of the notion of improvisation, some of the conceptual literature endeavours to describe the implementation of improvisation as a managerial process (Weick 1993b; Thackray 1994; Jackson 1995; Bhide 1996; Crossan, Lane et al. 1996; Crossan 1997; Pascale 1997; Alred, Garvey et al. 1998; Mirvis 1998; Pearson and Clair 1998; Adler 1999; Poolton and Ismail 2000; Zack 2000; Harris, Harris et al. 2001; Kanter 2001). Most of these papers take the view that with an increasingly turbulent business environment, managers need to seek more flexible ways of responding to unanticipated events and that improvisation is one such way. The central argument being that the future is unknown and therefore it is difficult to plan too far in advance and that consequently improvisation is a process that can be utilised when faced with an unanticipated event (Crossan, Lane et al. 1996; Barrett 1998; Volberda 1999; Davenport and Prusak 2000).

In this respect, one definition of improvisation is that improvisation can be seen as a process that brings order by reducing confusion and making sense out of non-sense (Mangham 1987; Mangham and Pye 1991). Alternatively, improvisation has been presented as a process for developing individual solutions for individual problems or unanticipated events (Gobeli and Brown 1993). Another view holds that improvisation is "winging it" or making it up as problems arise (Brown and Eisenhardt 1997; Mirvis 1998) It has been argued that improvisation is a process where the outcome is obscure, but the improviser has faith that they will achieve a valuable result (Alred, Garvey et al. 1998). Dyba (2000) in a study of improvisation in software development organisations, suggests that improvisation is an improvement process that refines the understanding of the relationship between learning and action. However, these definitions do not clearly ascertain in what circumstances improvisation occurs. Furthermore, they suggest a lack of control and urgency in solving some problems within businesses. They do not address the changeable nature of business and the need to address unanticipated events, yet there is some indication that this is where improvisation is most likely to occur (Barrett 1998; Moorman and Miner 1998b; Barnett and Pratt 2000).

The tumultuous nature of business underlines one of the major differences between the definitions offered by observers of jazz music and theatre, and those offered for use in management. That jazz musicians and actors deliberately create problems to solve is the opposite of most managers' actions, where much of their time is spent avoiding problems (Weick 1998). However, when faced with an unavoidable problem or event, managers have to respond and most managers react spontaneously (Mintzberg in Crossan and Sorrenti 1997). This is because some problems require a more urgent response than others. This reaction may be considered in some cases improvisational. For example, improvisation has been defined as acting in a spontaneous way while being guided by intuition (Crossan and Sorrenti 1997). An alternative argument is that improvisation is the narrowing of the time gap between deliberately conceiving a resolution to an unanticipated event and its implementation (Moorman and Miner 1998a; Moorman and Miner 1998b; Miner, Moorman et al. 2001). More specifically, there is a fusion between the design and execution of a resolution (Miner, Moorman et al. 2001). Ciborra (1999) in a conceptual review of improvisation, sees improvisation as a simultaneous convergence of thought and action. Sashittal and Jassawalla (2001), in their research into marketing implementation of small firms, agree by expressing improvisation as managerial actions that converge in time, between planning and implementing. Cunha (2003) describes improvisation as a collection of decisions that are arrived at as the resolution is implemented. Consequently, time convergence is an important factor of improvisation. However, Miner et al (2001) in their research into improvisation in new product development, point out that the speeding up of a process does not necessarily constitute an improvisation.

The concept of improvisational resource use is found in Weick's (1993a) review of the disaster at Mann Gulch in Montana, USA. In 1949, a fire broke out at Mann Gulch and a group of fire-fighters were parachuted into the area to fight the fire. On seeing that they were cut of from safety by the rapidly advancing fire, the leader lit a fire and ordered the men to drop their tools and lie down in the ashes. Only the leader did this and consequently the majority of the crew died. The use of fire to save lives was contrary to the training and expectations of the fire-fighters and use rather than in a destructive form, it was used in a constructive form. It was the alternative use of fire to save lives that Weick (1993a) argued was improvisational resource use. Barnett and Pratt (2000) support this view, by stating that improvisation could be the utilisation of

resources in alternative ways to complete tasks or solve problems. However, alternatives uses of resources does not necessarily imply improvisation. It is possible to utilise resources in ways different to their intended purpose, and not embrace time convergence. While Weick's (1993a) implies a divergence of use of resources there are also elements of time convergence. Improvisation, is therefore a time based concept (Crossan, Pina E Cunha et al. 2005).

In summary, it may be argued that one definition of improvisation, based on its use in the arts, is that it is a deliberate attempt to create a situation where the outcome is unknown and then create a solution that is appealing to the audience. In another definition, teaching sees improvisation as a reaction to unanticipated events. Here a teacher adapts the intended content from that from which it was originally designed for to some thing more appropriate as they move through the lesson and unanticipated events occur. The medical perspective suggests that improvisation is acting without planning to resolve unanticipated dilemmas. The approach towards defining improvisation from a management perspective is slightly different. Management perspectives imply that improvisation is a spontaneous reaction to an unanticipated event that is constrained by time and may rely on limited resources.

This section has shown that the definitions from each of these different contexts have similarities. They all indicate that improvisation is a process that allows either a single person or a group of people to respond to an event, that is not anticipated, by using limited resources within an externally defined time frame. Therefore, improvisation can be considered a reactionary process that is a response to an unanticipated event. Furthermore, the definitions of improvisation suggest that the causes, use and outcomes can be significantly different for each application in each event.

Causes, uses and outcomes of improvisation

Improvisation occurs because irrespective of how detailed an organisation's business plan may be, it cannot anticipate every event as the future is unpredictable and change is constant (Crossan, Lane et al. 1996; Sashittal and Jassawalla 2001). Consequently, improvisation does not occur without some unanticipated event triggering a response.

Therefore, there are clear causes and uses for improvisation. As a result of these causes and uses, certain outcomes are obtained.

Causes

Businesses are faced with high levels of economic turbulence and ambiguity and consequently need to develop strategies that can effectively reduce failure (Sashittal and Jassawalla 2001). A result of this turbulence and ambiguity is that it causes events to occur that are unexpected by the businesses. There is no expectation of something happening, in that the business owner or operator assumes that nothing will change (Eesley 2004). These unanticipated events sometimes come about through the development of new products or the emergence of new competitors (Davenport and Prusak 2000). Alternatively, the unanticipated events may be driven by consumer demands. For example, Mallak (1998) believes that satisfying customers demands immediately has become a critical success factor in today's service economy. Satisfying customer demands immediately is not something that can be fully anticipated as it is difficult to foresee exactly what these demands will be. Furthermore, Gobeli and Brown (1993) in a study on the process of product innovation, maintain that improvisation can also be forced upon a firm when the resources available are limited. In their study on comparative management based on national attitudinal differences, Aram and Walochik (1997) looked into the preference of Spanish managers to use an informal and extemporaneous decision making process. While the focus of their study was on comparative national styles of managing, the study did identify that improvisation is caused by unanticipated events or when circumstances are unclear (Aram and Walochik 1997). Sashittal and Jassawalla (2001) agree that many managers are obliged to improvise continually as they cope with emerging events due to constraints on resources. Also, emerging events often contribute to the ambiguity faced by organisations. This ambiguity also causes many organisations to improvise in order to make sense of what they are facing (Preston 1991; Weick 1993b; Orlikowski 1996; Aram and Walochik 1997; Barrett 1998; Bogner and Barr 2000).

When dealing with an unanticipated event, organisations have three choices: they can ignore the event, hasten their planning and implementation processes or improvise

(Moorman and Miner 1998b). Therefore, it can be argued that the causes of improvisation relate to a reaction to anticipated or unanticipated events and the attempts to resolve issues that arise from these events (Weick 1993b).

Uses of improvisation

As Moorman and Miner (1998b) indicated, an organisation can choose to ignore, speed up planning and implementation or improvise when faced with a unanticipated event. Once the unanticipated events have arisen they cease to be irreversible and often need to be resolved soon after they have occurred (Aram and Walochik 1997). Improvisation may be used to implement strategic changes, implement tactical changes, or to provide short term solutions to immediate problems (Sashittal and Jassawalla 2001). Although they do not explore how improvisation is used, Sashittal and Jassawalla noted that marketing implementation often includes improvisation as consumer responses emerge and affect strategy (2001). Improvisation may occur where an organisation lacks structure and discipline to create and follow plans and is used to develop strategy as the organisation functions (Moorman and Miner 1998b). In other words the organisation may simply react to unanticipated events as they occur. Furthermore, the need to improvise when faced with an unanticipated event is not limited to managers. Some researchers are convinced that employees too are often required to improvise in that they make decisions without seeking higher approval, extra resources and when they are under time pressure (Thackray 1994; Mallak 1998).

Apart from resolving external environmental problems, such as sudden shifts in consumer demand, improvisation may also be used as a deliberate strategy aimed at learning (Weick 1993b; Barrett 1998; Moorman and Miner 1998b). That is, some organisations and businesses attempt to improvise as a way of expanding their knowledge base. Therefore, improvisation is used when a business is forced to implement a change or resolve an issue that has not been planned for and when the time frame for resolving the issue is less than the normal planning cycle (Barrett 1998; Moorman and Miner 1998b; Barnett and Pratt 2000; Sashittal and Jassawalla 2001). Sashittal and Jassawalla (2001) demonstrate this when they observe how one organisation in their study produced a product and then improvised improvements based

on market reactions to the product. Aram (1997) noted that Spanish managers used improvisation to demonstrate their skills and abilities to manage difficult events. If the uses of improvisation are different, then the outcomes of improvisation are different too, according to the organisation's needs. They may be seeking an outcome that creates aesthetic improvements, adds value or resolves a crisis.

Outcomes from the use of improvisation

The outcomes for each act of improvisation is different and is dependent on the cause of the improvisation (Gobeli and Brown 1993; Rickards, Antonacopoulou et al. 2001). From the literature, it appears that there are three broad categories of outcomes from the use of improvisation. When used effectively, improvisation can bring about aesthetic improvements, increase value or resolve crisis (Crossan and Sorrenti 1997; Hatch 1997; Moorman and Miner 1998b).

Aesthetic Outcomes

Applications in music and theatre tend to look for aesthetic outcomes from improvisation (Moorman and Miner 1998b). With jazz, the music provides a structure for the musician to spontaneously explore (Barrett 1998). Hatch, (1997) has observed that during this exploration the musician seeks to create a feeling of awe and pleasure as they improvise on a melody. This is done by revising and embellishing tunes and melodies to reflect the skill and knowledge of the musician. The outcome aimed for is a brilliant performance built around the interpretation of tunes and melodies (Barrett 1998). Furthermore, there is the challenge of putting oneself into a difficult situation and then playing yourself out, demonstrating your competence to the audience and other band members (Barrett 1998; Peplowski 1998).

In improvised theatre the aesthetic goal is to keep the audience entertained and interested (Jackson 1995; Crossan, Lane et al. 1996). Like jazz musicians, the actors are driven by the audience's reaction to their improvisations (Crossan, Lane et al. 1996). In music or theatre failure to keep the audience engaged is likely to lead to boredom by the

audience and lost sales. (Hatch 1997). The appeal of improvised theatre and jazz music is the variety created within the performances.

The continued success of jazz music through using improvisation clearly indicates that improvisation is of benefit in improving or creating pleasing sensations. However, improvising for an aesthetic outcome is not limited to the arts. Organisations and businesses may improvise in order to present a better and more acceptable view to consumers. Mitroff and Anagnos (2001) explain how following the arrest of a suspect Turkish terrorist by the Italian authorities and their subsequent refusal to extradite him to Turkey, most Italian firms faced a serious consumer boycott in Turkey. However, one firm, Benetton undertook extraordinary action to protect themselves. Benetton react quickly and with little formal planning, they replaced their logo with black wreaths to show they were in support of the Turkish people's anger and dismay at the Italian authorities refusal to extradite the alleged terrorist (Mitroff and Anagnos, 2001). In this case, Benetton's reaction was improvised and they were able to present a more favourable view of themselves to consumers and thus avert the consumer boycott (Mitroff and Anagnos 2001). Clearly, improvisation can be used to make things or circumstances appear better to consumers.

Adding Value

Apart from making things appear better, improvisation can add value to organisations and businesses by solving problems or capitalising on opportunities (Von Hippel 1988; Barrett 1998; Moorman and Miner 1998b). This can take place in a number of activities including staff training and teaching, product development and implementing new technology.

Jackson (1995) looked at improvisation as a learning tool rather than a problem solving process. The focus of the article was to suggest that improvisation is an effective way for senior managers to get their message across to their employees (Jackson 1995). That is, improvisation can be used as a teaching tool to demonstrate to employees what is required. Jackson (1995) suggested that one value that can be added to an organisation is the development of a person's creative resources through improvisational workshops. Although Jackson (1995) was unclear exactly how this

could be done, one example of how improvisation has been used to help develop creative solutions to unanticipated events was during a British Airways workshop on improving customer service for business class customers (Barrett 1998). Barrett (1998) related how in this exercise managers had their beds replaced with airline seats and as a result a number of changes to the airline seats were introduced.

Improvising with new technology can add value to an organisation. Orlikowski (1996) conducted a study that examined how the introduction of new information technology affected the work practices of the employees in a single organisation. This longitudinal study noted that when faced with an unanticipated event relating to the introduction of the new technology, employees improvised. This allowed the organisation to make better use of the new technology by adapting to it to their needs. However, the study focused more on how an organisation changed over time following the introduction of information technology than on improvisation itself (Orlikowski 1996). It did not compare the different improvisations used, nor did it consider how successful the improvisations were in each case.

Value can be added through improvisation in teaching. Students come to class with their own agendas and these agendas may be significantly different to that of the teacher (Evans 1991; Levin 1994). This is highlighted in a study of expert and novice health teachers by Cleary and Groer (1994). They identified that expert teachers tend to improvise in the classroom more than novice teachers (Cleary and Groer 1994). They argued that teachers need to constantly scan the room and make a number of decisions according to the how the events unfold (Cleary and Groer 1994). However, other than observing that the expert teachers tended to improvise, Cleary and Groer (1994) did not explore improvisation as a phenomenon. Adding to this, Rynes and Trank (1999) state that events in a classroom are never completely predictable and therefore improvisation is inevitable. Consequently, the value that is added is when a teacher is able to digress from the planned lesson to answer a students' question, make a point or bring the students back to the task at hand, as these digressions are never predictable (Cleary and Groer 1994; Rynes and Trank 1999).

Just as the capricious nature of the classroom is unpredictable, so too is the capricious nature of business. This affects organisations' ability to add value due to the difficulty

of predicting the future. Therefore the need to develop new products and services, and get them to market quickly intensifies (Poolton and Ismail 2000). In a review of two empirical studies on the development of new services Edvardsson, Haglund and Mattsson (1995) considered the use of improvisation. However they did not specify how improvisation occurs. What they found was that improvisation was as important as planning in the development of new services (Edvardsson, Haglund et al. 1995). This argument suggests that businesses need to be able to cope with unanticipated events that force them to change direction according to environmental demands (Brown and Eisenhardt 1997). In a study of product innovation in the computer industry, Brown and Eisenhardt (1997) suggest a critical factor in the success of these organisations is the ability to change. Their research indicated that a more organic structure allows employees the freedom to improvise and create a product according to the changing markets and technology (Brown and Eisenhardt 1997).

In a field study that investigated the development of information system processes, Nandhakumar and Avison (1999) argued that the development process includes improvisation just as it includes planning and control by management. They discovered that a consequence of following a strict methodology hampered the subjects capability to resolve issues and that by applying their judgement they were able to exploit opportunities (Nandhakumar and Avison 1999). Nandhakumar and Avison (1999) came to the conclusion that the developers' work methods included elements of improvisation, however, the authors did not expand or elaborate further. Others agree. Exploring the management of knowledge through networks, Augier and Vendelo (1999) recognised that improvisation plays a significant role and adds value in the development of new ideas for novel products as well as ways of bringing these ideas to fruition. This may be because new product development processes are sometimes subjected to a greater level of turbulence and time constraints than the production of established products (Edvardsson, Haglund et al. 1995; Moorman and Miner 1998b; Augier and Vendelo 1999; Poolton and Ismail 2000).

In their empirical study on improvisation in new product development, Miner et al (2001) found that improvisation was a significant factor in new product development. They observed that despite detailed plans that anticipated business activity, the firms still faced unanticipated events and dealt with them by improvising (Miner, Moorman et

al. 2001). Miner et al (2001) went on to argue that there is rarely a single value gained from improvising, and identified organisational learning as one secondary outcome to improvising. Considering that learning from experience is an ongoing process, it is likely that improvising will lead people to learn from the experience (Cope and Watts 2000).

One way that organisational learning emerges from improvisation is the introduction of new technology within an organisation. Lau, et al (1999) undertook a study that looked at how changes occur when the new technology is introduced in a health setting. They concluded that when introducing new technology, improvisation can overcome unanticipated difficulties such as resistance to implementing the new technology (Lau, Doze et al. 1999). This occurs by adapting the technology to the individual's needs, rather than introducing separate individual technology specific to the individual's needs. The study did not explain how the adaptations were improvisational, nor did it indicate if all of the improvisations were successful. The focus tended to be on way the new technology was used.

Regardless of planning and management control, businesses inevitably face unanticipated and unstructured events that force them to improvise (Augier, Shariq et al. 2001). In this process of using improvisation to resolve unanticipated events, organisations can add value. This added value may be increased knowledge, a more market-ready product, or better use of new technology depending on the unanticipated event that occurs.

Crises Resolution

Improvisation as a problem solving process is often identified with crises, as several studies have shown (Crossan and Sorrenti 1997). Crises occur when there is a breakdown in a commonly shared sense of reality (Pearson and Clair 1998). Weick (1993a) looked at the collapse of a commonly shared sense of reality in organisations by studying the Mann Gulch disaster. In the Mann Gulch disaster a number of fire-fighters lost their lives because they were unable to understand the directions of their leader (Weick 1993a). Weick (1993a)describes how the team leader lit a fire then laid down in the ashes, realising that the fire would not burn twice in the same area. However, the

training of the rest of the team was to fight fires not to light them. This use of knowledge to do something unplanned saved his and a colleague's life, while others that did not understand his actions, lost their lives.

Although Hutchins (1991) does not use the word improvisation, he describes how a ship lost all power while coming into harbour. The focus of Hutchins' (1991) article was the use of adaptation to organise work. He argued that the crew used an adaptive approach to avoid a disaster (Hutchins 1991). This adaptive approach has many similarities to Weick's study of the fire fighters at Mann Gulch in that they utilised their knowledge of their equipment and adapted this knowledge accordingly. As a result the crew were able to safely berth the ship without mishap (Hutchins 1991).

One of the most widely known cases of improvisation to resolve a crisis was the Apollo 13 mission to the moon in 1970. Once it was discovered that a solution to the build up of carbon dioxide could not be implemented using current knowledge, the ground crew began to improvise based on the knowledge they held collectively and the material resources available on the spacecraft (Augier, Shariq et al. 2001). It was a return to theoretical knowledge held by the engineers that enabled them to improvise and so save the astronauts (Cheetham and Chivers 2000). Facing rising carbon dioxide levels in the spacecraft, the ground crew constructed a filter that the astronauts could build using their limited resources on the spacecraft (Augier, Shariq et al. 2001).

While investigating how professionals tackled problem solving, Cheetham and Chivers (2000) described a similar case of life saving. In this case a surgeon, Dr Wallace, improvised and saved a woman's life by conducting an operation using a coat hanger, a mineral water bottle, brandy, a pair of scissors and plastic tubing (Cheetham and Chivers 2000). It was a return to theory and a recognition of the potential of ordinary items that allowed the surgeon to improvise (Cheetham and Chivers 2000).

A more recent example of improvisation in a crisis comes from the destruction of the World Trade Centre in September 2001. Trapped inside a stuck lift with a number of others, a window cleaner used his squeegee to dig a hole through the wall to escape (Unknown 2002). In this case it was the realisation that the squeegee had two sharp

ends that allowed it to be used to gouge a hole in the plaster board allowing the trapped people to escape.

Improvisation whether for aesthetic, value or crisis outcomes plays a significant role in resolving issues that arise from unanticipated events. It is a pervasive activity and its use can have a profound effect on resolving issues within organisations. More importantly, it should be noted that not all improvisation is successful or beneficial to a business, firm or organisation and sometimes its use can have disastrous consequences.

Limitations of improvisation

The literature concerning improvisation has a tendency to focus on the positive aspects of improvisation and avoids the negative aspects. Certainly, in some circumstances the use of improvisation can be beneficial, however there can be some negative aspects. Barrett (1998) declares that improvisation is a spontaneous activity and therefore improvisers are risk takers and not all risks taken are successful. Weick (1998) highlights this by comparing the intentions of jazz musicians and managers. Whereas jazz musicians intentionally create surprises, managers try to avoid them (Weick 1998). In particular, Hatch (1997) pointed out that jazz musicians and improvisational theatre actors create their own unanticipated events and then respond to them, whereas managers do not. Managers respond to events that are caused by circumstances outside of their control. Consequently, within a business context improvisation can be seen as an opportunistic activity where risk- taking could lead to failure (Schumpeter 1989; Barrett 1998; Liles 1998). Pearson and Clair (1998) support this view, by arguing that all problem solving processes have varying levels of success or failure depending on the choices made. One contribution to the risk of failure is that problem solving is about making choices and therefore to some degree is a matter of trial and error and can be compounded by the limited knowledge of the persons involved (Mangham 1987; Weick 1993a; Augier, Shariq et al. 2001). The problem being that the results of improvisational activities cannot be predicted at the start of the process (Dyba 2000). The intellectual challenge of dealing with an unanticipated event can reduce the effectiveness of the response if the person does not have sufficient knowledge and experiences to draw on (Amabile, Conti et al. 1996).

Providing an improvisational structure for employees to solve problems can also be problematic. For example, having reduced the rules and encouraged improvisation some employees find themselves baffled when they have no guidelines upon which to improvise (Adler 1999). Another restriction is the pressure of time and some employees under severe time limitations are not able to come up with a solution that is effective (Amabile, Conti et al. 1996). Inevitably, there is a variation in the quality of the outcome of the improvisation based on such factors as the resources and the knowledge available. If the quality of both is low then the improvisation is less likely to be of benefit (Crossan and Sorrenti 1997). Furthermore, it has been shown that constant improvisation rarely leads to long term success (Bhide 1996). A business that continuously improvises is unlikely to complete tasks well enough to make it a sustainable, long-term approach to doing business.

Studies discussed have shown that improvisation can have some significant benefits for businesses (Weick 1998; Moorman and Miner 1998b). However it is also clear that there are limits to the effective use of improvisation. These limits are often determined by the resources available, time available and the skills and knowledge of the improviser as well as the structure of the organisation (Weick 1998; Moorman and Miner 1998b). While decisions to improvise may be made, there are sometimes difficulties in implementing the decisions (Aram and Walochik 1997). These limits suggest that improvisation is not an unstructured process, but one that is clearly guided by a number of influential factors that can be considered a "framework". These factors include knowledge, skills, time and resources are available. This combination of factors also suggests that improvisation occurs at different levels from 'marginally improvisational' to 'highly improvisational'.

The structure of and levels improvisation

As argued previously, when improvisation occurs, it does not do so within a vacuum. One needs to improvise on something with something (Woodman, Sawyer et al. 1993; Mirvis 1998; Weick 1998). Therefore, improvisation must be constructed of something. Furthermore, while improvisation may seem like a chaotic random activity, there is a

view that chaos and randomness can generate order (May 1996). This suggests, firstly, that there is some structure to improvisation and secondly, that the level of improvisation varies according to what extent the various parts of the structure influence the use of improvisational response.

Structure

It has been argued that the structure of improvisation is dependent on a creative mixture of experience, knowledge and resources within a framework that allows flexibility of processes when solving problems and dealing with unanticipated events (Brown and Eisenhardt 1997; Crossan and Sorrenti 1997; Weick 1998). Furthermore, it can be argued that expertise, consisting of knowledge, functional skills and talents, is the basis for creative achievements (Amabile 1997). This view is supported by Jackson (1995, p27) who sees improvisation as "freedom within a structure", and suggests that improvisation does have some confines and therefore its use is limited in some way. What is clear is that improvisation is not an "anything goes" activity, nor is it a case of chaos and anarchy. Improvisation is a constrained activity that is affected by knowledge, skills, time and resources (Crossan, Lane et al. 1996; Orlikowski and Hofman 1997; Peplowski 1998). Furthermore, the organisational structure and environment affects the use of improvisation.

The use of improvisation needs a dynamic organisational structure that combines both organic and mechanistic elements (Brown and Eisenhardt 1997). The organic structure allows for flexibility to adapt to change, while the mechanistic structure gives the boundaries in which to operate (Burns and Stalker 1961). This is demonstrated by jazz musicians who follow a set of predetermined rules that prevent musical anarchy (Peplowski 1998). As Bhide (1996) has argued in his article on entrepreneurship, an organisation that constantly improvises is unlikely to achieve long-term success. Some goals and outcomes are needed in order to make successful use of the improvisation. As the various definitions show, improvisation is not a case of anything is acceptable. Some sorts of limitations apply (Sawyer 2000). In business an unfettered improvisational approach could become a creative process without any acceptable result.

The structure affecting improvisation consists of both external and internal elements (Moshavi 2001). The external, influential elements are the time available to resolve the unanticipated event and the range of resources available (Weick 1993a; Moorman and Miner 1998a; Moorman and Miner 1998b). The internal elements are the memory or knowledge and skills of the improviser and their ability to draw on that knowledge and skills to quickly determine and implement a solution (Moorman and Miner 1998b). The relationships between these elements as derived from the literature and can be shown diagrammatically (see Figure 1).

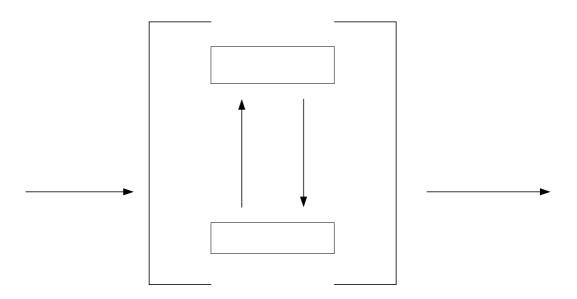


Figure 1: Structure of improvisation

Figure 1 shows the relationship between the external elements (circumstances, time and resources) and the internal elements (knowledge and skills), as described below, that influences improvisation. For improvisation to occur, it has been suggested that the external elements interact with the internal elements (Weick 1993a; Moorman and Miner 1998a; Moorman and Miner 1998b). That is, all four elements influence the act of improvisation.

Knowledge

It can be argued that knowledge and knowledge creation has a far-reaching effect on all business activities. Solzhenitsyn (1993, p3) argues that nothing is created without an organic link to previous creations. Woodman, Sawyer and Griffin (1993) in developing a theoretical framework for understanding creativity, find it hard to believe that any creative process is free from the influence of knowledge. Augier and Vendelo (1999) suggest that effective management of knowledge assists organisations in creating new ideas through improvisation. They argue that it is through shared knowledge that organisations are able to draw upon when seeking a solution to an unanticipated event (Augier and Vendelo 1999).

It is well documented that this knowledge creation can be a result of social interaction (Crossan and Sorrenti 1997; Davenport and Prusak 2000; Miles, Snow et al. 2000). Brazeal and Herbert (1999) who seeks to develop a cohesive paradigm for entrepreneurship, contend that a person's knowledge emerges from a search for superior answers to questions raised by paradigm contention. Johannessen, Olsen and Lumpkin (2001) suggest that this contention is a result of changing situations that create gaps that require answers. Von Hippel (1988) argued that knowledge is accrued through practical activities in a way that allows a person to undertake an action effectively and efficiently. Therefore, knowledge can be described as a changeable framework of experiences, information, and values that allows people to experience and learn new things while contributing to their existing knowledge through social interaction (Davenport and Prusak 2000). In other words, knowledge gives people the capacity to deal with unanticipated issues.

In order to assist in resolving problems, people use their knowledge to reframe problems to suit their knowledge paradigms (Schon in Cheetham and Chivers 2000). In their study on the decision making processes of both expert and novice teachers, Cleary and Groer (1994) discovered that expert teachers use their knowledge of classroom paradigms to guide their lessons whereas novice teachers tended to stick to their lesson plan. This suggests that knowledge and experience employ a significant role in

improvisation. It could be argues that improvisation is about finding the known in the unknown and the unknown in the known (Palus and Horth 2005)

Rynes and Trank (1999) while investigating the need for improvisation in the classroom put forward the idea that teachers should broaden their knowledge of current business trends so that their credibility is preserved as they improvise in the classroom. Smith and Culkin (2001) in an article concerning market researchers implies that the quality of data can be improved by using prior knowledge of data collected previously, in other similar studies. The indications are that it is not just knowledge, but specialist knowledge that is crucial to helping people resolve problems and unanticipated issues when using improvisation (Cheetham and Chivers 2000).

Weick (1993a) argued that there are other ways to orderliness than planning, and asserted that success in arriving at orderliness through improvisation comes from knowing resources intimately. Ciborra (1999) suggested that to improvise competently, the improviser needs to have sound knowledge of both the task and process of improvisation. Other observers of improvisation also assert that a sound knowledge of resources contribute significantly to successful improvisation (Moorman and Miner 1998b; Augier, Shariq et al. 2001; Miner, Moorman et al. 2001). Moorman and Miner (1998b) observed that previous knowledge was an important aspect of the implementation of improvisation. Later, Miner et al (2001) reconfirmed their view in a study on product development maintaining that skills and knowledge have a profound impact on improvisation. In their article that explored the transformation of context when solving complex unstructured problems, Augier, Shariq et al (2001) agree by suggesting that people solve problems by bringing knowledge and experience in to play.

The effect of previous knowledge and skills when improvising is demonstrated by the Apollo 13 space-mission and the Dr. Wallace incidences, as explained earlier. In each of these cases it was specialised and intimate knowledge of the resources available that made it possible to improvise (Cheetham and Chivers 2000). Weick (1993a) argued that profound understanding of the properties of resources implies that an apparently heterogeneous set of materials can make a significant difference when improvising. This is supported by research conducted by Miner et al (2001, p304) who stated that "One recurring theme of both research and lay observations is that stored knowledge

and skills shape improvisation in important ways." It is the knowledge of the materials at hand that contributes to the perception of the adequacy of the materials when dealing with unanticipated events faced by the improviser (Amabile, Conti et al. 1996).

The knowledge used by improvisers can be divided into two concepts: declarative knowledge and procedural knowledge. Declarative knowledge determines what to do when faced with a task to resolve an issue (Leach, Wall et al. 2003; Roberts and Ashton 2003; Taatgen and Lee 2003; Wilcox King and Zeithaml 2003). Declarative knowledge is a collection of clues that enable a person to determine what is happening and what to do in response (Leigh and McGraw 1989). It is connected to remembered facts of past events and experiences (Brannon and Koubek 2001). It can be demonstrated through the recognition of facts relating to resolving an unanticipated event (Lenard 2003). Procedural knowledge is determined by the concept of knowing how to perform a task (Leach, Wall et al. 2003; Roberts and Ashton 2003; Taatgen and Lee 2003; Wiklund and Shepherd 2003; Wilcox King and Zeithaml 2003). Procedural knowledge is a collection of learnt processes on how to behave in response to various situations (Leigh and McGraw 1989; Anderson and Lebiere 1998). This is illustrated when a person is able to competently perform a task in relation to resolving an unanticipated event (Lenard 2003).

Skills

As demonstrated there is strong evidence that knowledge influences the ability to improvise as well as the quality of improvisation. However, knowledge alone is not enough (Augier, Shariq et al. 2001). The improviser needs to understand the issue of concern in order to be able to successfully improvise (Mirvis 1998). This understanding of events comes about through knowledge and experience (Crossan and Sorrenti 1997).

Weick (1998) thinks that the more a person needs to improvise the more dependent they are on their skills and experiences. If this is so, then skills and experience along with knowledge are critical elements in the successful implementation of improvisation. Most cases of successful improvisation require sound skills gained from practice and performance in related tasks (Crossan, Lane et al. 1996; Crossan 1997; Nandhakumar and Avison 1999; Cheetham and Chivers 2000). However, as Weick (1993a) shows in

the Mann Gulch disaster, successful improvisation can come from applying knowledge and skills learnt from unrelated tasks. This is also demonstrated by the actions of the window cleaner in the World Trade Centre (Unknown 2002). Crossan (1997) makes the point that just as a musician needs to be able to skilfully play their instrument, so must an improviser skilfully use their knowledge and resources. Crossan (1998) states competent improvisation is constructed from conventional skills learnt in a particular field. Augier et al (2001) agrees by stating that people bring their skills and experiences to bear when solving problems and facing unanticipated events. Cleary and Groer (1994) in their study of novice and expert teachers validated the idea that improvisation is linked to skills and experience. They showed that expert teachers with more experience and skills tended to improvise more often and with more success than novice teachers (Cleary and Groer 1994).

It is through experience and practice that people build their skills (Cropley 1999). Den Hertog and Huizenga (2000) take the view on the implementation of business strategies that practice is important for developing skills. Crossan and Sorrenti (1997) in a description of improvisation, offer the opinion that technical skills allow the improviser a limited number of choices, therefore the greater the skills the greater the choices. Using jazz as an example Barrett (1998) suggests that the more experiences a jazz player has, the greater the pool of knowledge the jazz player can draw on. He goes on to suggest that the more experiences a manager has the better able they are to improvise (Barrett 1998). Therefore, it can be argued that the more skills and the greater the expertise the larger the number of choices a manager or employee has when improvising (Crossan and Sorrenti 1997). While skills in terms of the ability to manipulate resources, plays an essential role in determining whether improvisation will be successful it does not necessarily guarantee success (Miner, Moorman et al. 2001).

Communication skills have been studied closely in relation to improvisation. Brown and Eisenhardt (1997) express the view that where the use of improvisation involves more than one person, communication is a critical factor. Monks, Barker and Mhanachain (2001) agreed with this notion in their study on learning and management development, finding that improvisation is dependent on people communicating intensely amongst themselves.

It has been argued that in order to improvise the improviser needs some previous knowledge relating to expertise and resource use. Aram and Walochik (1997) discovered that Spanish managers viewed the ability to improvise as demonstrating one's skills and knowledge. What is not discussed in their study is how the skills are actually used, nor does it examine how improvisation is actually used. Weick (1998) argues that improvisation is a mixture of the past and present skills and knowledge. Consequently, improvisation is an action that is dependent on knowledge and skills of the practioner, although this does not mean every improvisation will be successful.

Circumstances

It has been argued that all businesses operate within an environment of uncertainty and turbulence, so much so that this uncertainty and turbulence has become a basic factor in business (Yusuf 2002). Furthermore, all businesses suffer some difficulties particularly during the start-up phase (O'Gorman and Doran 1999). It is widely accepted that these conditions of uncertainty and turbulence impact on the planning and decision making processes of all businesses due to their unpredictable nature (Matthews and Scott 1995). These external forces particularly affect smaller businesses as, due to their size, they have little influences on their environment individually (Anderson and Atkins 2001).

These conditions create the circumstances in which businesses find themselves when facing unanticipated events. The circumstances while generic affect businesses specifically and fall in to a number of categories. The circumstances reflect changing customer demands, pressure to perform from funding bodies such as the Government and NEIS providers, increased competition, technological changes, changes in suppliers and distributors and financial conditions (Matthews and Scott 1995; Porter 2000; Yusuf 2002; Jabnoun, Khalifah et al. 2003). In the case of pressure from the government and NEIS providers this is a unique circumstance applicable only to NEIS participants. The participants are expected to achieve a certain result each financial quarter. Failure to meet this expectation could mean the participant loses their financial and mentoring support. It is the ambiguous, unpredictable, complex and turbulent nature of the business environment that inevitably leads to businesses facing unanticipated events (Matthews and Scott 1995; Yusuf 2002; Jabnoun, Khalifah et al. 2003).

Time

The literature suggests that there is a degree of spontaneity to improvisation in terms of time convergence. That is the less the time between the conceptualisation of a resolution to an unanticipated event and the implementation of the resolution the more improvisational an action is (Moorman and Miner 1998a; Moorman and Miner 1998b). As argued earlier there is a fusion between the decision and the action (Cunha, Cunha et al. 1999; Miner, Moorman et al. 2001; Crossan, Pina E Cunha et al. 2005). In other words the use of improvisation is influenced by the time available and the spontaneity of the response from the improviser.

Crossan and Sorrenti (1997) see improvisation as being a spontaneous action. That is, improvisation occurs without a high level of planning but on the spur of the moment. Hatch (1997) in a response to Crossan and Sorrenti (1997) tends to agree with them and regards spontaneity as a difference between present action and future action. The more spontaneous the action the more likely it will be performed in the present, rather than the future. Crossan (1997) discusses the impact of improvisation on innovation, and argues that the turbulent nature of business operations often requires a spontaneous reaction to an unanticipated event. Earlier Gioia (1988) in writing about jazz, stated that jazz was a spontaneous activity and players needed to respond immediately. Cleary and Groer (1994) in their research on health teachers noted how the expert teachers made decisions on how to respond in a spontaneous way as events unfolded in the classroom. Ciborra (1999) takes the view that improvisation is an instantaneous process that occurs with a high degree of spontaneity as opposed to being a well considered decision. This spontaneity suggests that some convergence of time exists from when the improviser makes a decision about an unanticipated event, to when the improviser implements the decision.

Decision making can be defined as the time lapse between recognising a problem and implementing a solution (Harfield, Driver et al. 2001). Moorman and Miner (1997; 1998b) conceptually examine the idea that the creation of a resolution and its implementation converge in time when improvising. They indicate that many observers believe that the creation of a solution occurs first, followed by action when seeking to deal with an unanticipated event (Moorman and Miner 1998b). This suggests that there

is a time lapse between a resolution being conceived and its implementation. Consequently, Moorman and Miner (1998b) argued that the less time taken between creating a solution and implementing the solution the more improvisational the action is. Within jazz music the time convergence is minimal, the creation of the music is instantaneous without any analysis or consideration of the consequences and therefore, can be seen as an improvisational activity (Hatch 1997; Peplowski 1998).

The argument that all improvisation is spontaneous is questionable, because of the very nature of improvisation. If improvisation does consist to some degree of "making it up as you go", as some commentators suggest, then the solution may evolve as the improviser improvises rather than instantaneously (Brown and Eisenhardt 1997; Mirvis 1998). For example, the Apollo 13 rescue took place over a period of time with some analysis occurring as the actions were being taken (Cheetham and Chivers 2000; Augier, Shariq et al. 2001). However, the argument that improvisation can be spontaneous is supported by the Wallace surgery incident and by the observation of teachers in classrooms (Cleary and Groer 1994; Cheetham and Chivers 2000). Therefore, although improvisation can be measured by time convergence, the length of time varies according to the circumstances. In some cases time convergence may be almost instantaneous (Weick 1993a), while others may occur over a longer period of time (Augier, Shariq et al. 2001).

It can be argued that when the time convergence between the creation of a response to an unanticipated event and the implementation of this response is spontaneous or narrow, a degree of improvisation may have taken place.

Resources

There has been a strong argument in some of the literature concerning the use of resources in improvisation and this needs to be addressed. The use of resources in improvisation is demonstrated very clearly by jazz musicians. In jazz music what distinguishes improvisation from creating a new musical piece, is that the performers do not completely rewrite the composition, but introduce changes as the musical composition is performed (Preston 1991). The original music notes are used by each performer as they move closer to or further from the original musical score as they perform. When applied to a managerial situation, the improviser deviates from the

original intended use of resources according to the requirements of the situation and the limitations of time available. Moorman and Miner (1998b) follow this line of thinking by arguing that some improvisations contain fewer deviations than others. In an article examining the impact of procedural memory and declarative memory, Moorman and Miner (1998a)describe improvisation as a continuum with a range of adjustments that move further and further away from the referent action. This interpretation and use of resources is demonstrated by the Mann Gulch disaster where the deviation from normal behaviour was substantial. Instead of putting out the fire the team leader lit one, a complete departure from what he was trained to do (Weick 1993a). This act could be considered improvisational in that it is far removed from the predetermined course of action and in that it used the resources available, that is fire, for a reason other than its intended purpose, which is to destroy property, to save lives (Weick 1993a). Moorman and Miner (1998b) found that in the most extreme forms of improvisation the improviser begins to create new patterns and this represent a departure from normal acceptable behaviour or use of resources. An example of this is the use of brandy by Dr Wallace to sterilise the resources he used in the surgery (Dyson 1995; Cheetham and Chivers 2000).

The common thread of time convergence emerges even where there is some support for resources to part of improvisation. In all cases where it has been argued that improvisation utilises divergence of resource usage, time convergence is still a factor. It has been argued earlier that divergence of use of resources can also occur without time convergence. It may be that divergence of use of resource may influence improvisation in a subtle and significant way.

Levels

Using jazz improvisation as a metaphor for organising, Zack (2000) argued that improvisation can be described as a continuum by showing that improvisation moves through a rigid stage to flexible, organic and finally reaching a chaotic stage in terms of implementation. Highlighting this suggestion of degrees, Berliner (1994, p66-71) speaking on jazz improvisation states how Konitz, a noted jazz musician, suggested that improvisation lies along a continuum moving from "interpretation" to

"embellishment" and "variation" to finish at "improvisation". This continuum demonstrates the extent to which a jazz musician may stray from the original music score and the degree to which the performance is improvisational. This suggests that there are different levels of improvisation. A number of others have suggested that this continuum could be separated into two distinct and parallel lines (Weick 1993b; Weick 1998; Moorman and Miner 1998a; Moorman and Miner 1998b). While knowledge, skills, time and resources are integral parts of the structure of improvisation, the range of definitions of improvisation suggest that there are different levels of improvisation. These different levels reflect the variability between two interacting continuums that represents the influence of time convergence and resource use. (Weick 1993a; Weick 1998; Moorman and Miner 1998a; Moorman and Miner 1998b)

Time convergence

The link between time and improvisation lies in the origin of the word improvisation. Improvisation comes from the Latin word meaning "not seen ahead of time" or to "deal with the unforeseen" (Barrett 1998; Weick 1998). The challenge of most businesses nowadays is to be able to resolve unanticipated and unforeseen events within a limited time frame (Gasper 1989; Crossan and Sorrenti 1997; Heath 1998; Moorman and Miner 1998b; Augier, Shariq et al. 2001). The turbulent nature of the business environment means that there is often less time available between an unanticipated event occurring, planning a response and the implementation of a solution (Dyba 2000). Furthermore, business operators have differing lengths of time in which to respond to an unanticipated event depending on the urgency of the response. Time convergence occurs when the time between the conceptualisation of a resolution to an unanticipated event and the implementation of that resolution converges (Moorman and Miner 1998a; Moorman and Miner 1998b; Miner, Moorman et al. 2001; Baker, Miner et al. 2003).

This time convergence is particularly noticeable where time has become a scarce resource and organisations or individuals are facing a potential disaster or crisis (Crossan and Sorrenti 1997; Pearson and Clair 1998). As previously described both the Mann Gulch fire and the Dr Wallace emergency surgery example provides clear evidence of the need for time convergence between the conceptualisation of resolution and its implementation (Weick 1993a; Cheetham and Chivers 2000). During a disaster

or crisis there is little time for reflection and planning (Bogner and Barr 2000). Ciborra (1999) especially notes that improvisation is about acting in the moment of having a vision of the solution.

Time convergence as an improvisational action is not limited to crises or disasters. When faced with providing customer service, employees may improvise by conceiving a solution and advising the customer immediately without the need to consider or plan a response (Mallak 1998). Moorman and Miner (1998b) discovered that during new product development time convergence occurred as new information became available to the developers. Dyba (2000) noted that there was often time convergence among software programmers when faced with an unanticipated event. Consequently, time convergence can apply to a range of unanticipated events where the response action is either largely unplanned or there is little planning occurring.

It is important to note that, compression of time does not always imply improvisational activity. For example, Crossan (1998) citing Mintzberg (1973) suggested that while most managerial activity is spontaneous, not all managerial activity is improvisational. Miner et al (2001) in their study of improvisation notes that simply shortening the time to complete a task does not necessarily imply improvisation and they observed that sometimes design occurred just prior to action without the action being improvisational. However, it can be argued that the narrower the time gap between the conceptualisation and implementation of a resolution the more likely the action is improvisational (Moorman and Miner 1998a; Moorman and Miner 1998b; Dyba 2000; Miner, Moorman et al. 2001; Sashittal and Jassawalla 2001).

In summary, the use of improvisation can be loosely positioned at different levels along a continuum. It is determined by how close the time gap is from when a solution is created and its implementation. The narrower the time gap the more improvisational the activity. This is demonstrated in figure 2 below:

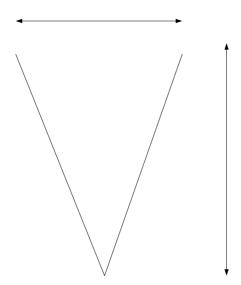


Figure 2: Levels of Improvisation

This figure demonstrates how time convergence can differentiate the different level of improvisation along the continuum. The figure shows that an activity can be improvisational by measuring where along the V convergence the convergence between design and execution actually takes place. For example, the Mann Gulch event had narrow time convergence over a short period of time, while the Apollo 13 incident still had time convergence but over a longer period of time. Activities at the low improvisation end of the continuum tend to be over a longer timeframe between design and execution than those activities at the high improvisation end (Weick 1998).

Considering the implicit idea that improvisation occurs to different degrees, there is little in the literature that actually addresses this issue comprehensively. It seems that a decision on how to react to an unanticipated event would be critical to the success of resolving the issue. Improvisation by its nature requires access to a pool of resources and decision-making that is influenced by the time available to find a solution and those resources.

This section has shown that improvisation is a complex process that occurs within a structure and at different levels. As a complex process there are a number of elements that have emerged from the literature that are linked to improvisation.

Elements of improvisation

From within the literature, a number of elements emerged that are part of the construct of improvisation. These elements include intuition, creativity, bricolage and innovation (Weick 1993a; Weick 1993b; Crossan and Sorrenti 1997; Barrett 1998; Weick 1998; Moorman and Miner 1998a; Moorman and Miner 1998b; Ciborra 1999; Rynes and Trank 1999; Miner, Moorman et al. 2001). These elements are perceived as being related to improvisation, but by themselves each does not constitute improvisation (Miner, Moorman et al. 2001). Each of these four elements is considered as it relates to improvisation.

Intuition

Crossan and Sorrenti (1997) argued that the spontaneous nature of improvisation means that the improviser's actions are guided by intuition, although they contended that not all spontaneous actions are intuitive. In defining improvisation, they suggested that a key factor of improvisation is intuition and that intuition assists improvisation by distinguishing a solution from a range of possibilities (Crossan and Sorrenti 1997). Moorman and Miner (1997) agree that intuition may be part of improvisation. How intuition can contribute to the improvisation process is by narrowing the gap between solution and action (Ciborra 1999). In other words it speeds up the decision making process during improvisation. Mitchell and Beach (1990) undertook a literature review on intuitive and automatic decision making, in which they argue that most decisions, including critical ones, are made intuitively and spontaneously without resorting to analysing the problem. Schoemaker and Russo (cited in Harfield, Driver et al. 2001) agreed by stating that intuitive decision making is the most usual way of making decisions. This has the effect of arriving at a decision quicker than if further analysis took place first.

In identifying what needs to be done when all the facts of the situation are not available, Schumpeter (1936) suggested that success or failure of a decision is dependent on intuition. He described intuition as the ability to see things clearly in a way that later turns out to be accurate (Schumpeter 1936). Intuition is evident when a decision maker immediately scans the situation and delves into their memory and uses past experiences

to frame a response instantaneously (Mitchell and Beach 1990). In describing how managers work out problems, Senge (1994) stated that managers recognise patterns and intuitively arrive at solutions. Rosenblatt and Thickstun (1994) agreed, in their article exploring intuition, and assert that intuition is a process where the brain seeks and matches patterns. That is, the ability of intuitive thinkers to rapidly identify appropriate actions is based on their ability to match what they are seeing with their experiences and knowledge (Crossan and Sorrenti 1997). In a review of fast-cycle decision making, Prewitt (1998) concurred, contending that intuitive decision makers utilise knowledge learnt over time. There is strong support amongst researchers of intuition, that it is a method of recognising past paradigms (Crossan, Lane et al. 1999). Intuitive action relies on previous knowledge and its spontaneous nature clearly links it to improvisation.

Researching the concept of common sense, Gerber, (2001) discovered that many of the participants saw intuition as a gut feeling that allows people to make decisions. In a study that investigated the use of intuition in decision making, Burke and Miller (1999) identified that intuitive decision making is founded in the interviewee's experiences. Over time the interviewees built a data base of knowledge through their experiences and training which was accessed through introspection by the individual (Burke and Miller 1999). Intuition is often called on when there is a substantial degree of uncertainty because the facts are unclear (Agor 1986). In their review of the literature on intuition, Shirley and Fox (1996) determined that intuition occurs when there is a decrease in the level of precedents to call upon and several useable solutions are available. Intuition is also used to respond when unexpected events occur and there is little or no time to analyse and plan a response (Burke and Miller 1999). However, what differentiates intuition from improvisation is that it is solely a cognitive process (Wierzbicki 1997; Burke and Miller 1999; Garcia and Ford 2001).

Considering intuition as a cognitive process, Garcia and Ford (2001) cite Westcott and Ranzoni (1968) in their exploration of intuition and its role in counselling, by describing intuition as a thinking method of arriving at a conclusion with considerably less information than would normally be required to arrive at the same conclusion. Garcia and Ford (2001) quote Westcott (1968) who stated that intuition is a concurrent process that is difficult to put into words and is related to imagery. Garcia and Ford (2001)

exemplify Vaughan's' (1979) view that intuition is comprehending while not being able to explain the comprehension (Garcia and Ford 2001). Agor (1984) states that authors like Spinoza have argued that intuition is an eminent method of knowing without the use of reasoning or previous knowledge. He suggests that intuition is a quick and reliable way of understanding events while giving an immediate cue on how to respond (Agor 1984; Agor 1986). Intuition is an inexplicable sense of possibilities and actions that is arrived at quickly in response to a new situation (Crossan, Lane et al. 1999).

Clearly, intuition has a strong link to improvisation. The fact that it is spontaneous and knowledge based demonstrates that intuition is part of the construct that makes up improvisation. However, Miner and Moorman (2001) point out that improvisation can sometimes occur without intuition. Furthermore, not all intuition is improvisational. Intuition can occur without any improvising taking place, for example, when making an automatic decision that may be acted on through careful planning and at a later date. As a cognitive process, intuition says little about the actual use of resources, however, intuition does assist with the notion of convergence of time between creating a solution and its implementation (Moorman and Miner 1998b). Furthermore, intuition is seen by some as the precursor to creativity (Bastick 1982; Burke and Miller 1999).

Creativity

Improvisation is seen as a creative process that constructs order out of disorder (Preston 1991). Weick (Weick 1993a) raises the connection between creativity and improvisation in his review of the Mann Gulch Disaster. He suggests that although creativity is not expected when faced with disaster, it was the creative response of the smokejumper to the dangerous situation he was in that saved his life (Weick 1993a). In their review of two empirical studies of the development of new services, Edvardsson, Haglund and Mattson (1995) also consider the link between creativity and improvisation in the development of new services. They determined that creativity, as well as improvisation were important components when developing new services (Edvardsson, Haglund et al. 1995). Moorman and Miner (1998b) agreed with the link, by suggesting that creativity could be an invaluable skill when improvising.

McCrone (1993) suggests that although the imagination creates new ideas, in reality they are simply old ideas that have been reorganised into a new order. Weick (1993b) in a paper on organisational change and redesign, felt that creativity is deciding how to use what you know in order to move beyond the present position. In an article about using training to develop creativity, Garavan and Deegan (1995) also see creativity as the rearrangement of current resources, however, they do point out that there is a difference between novelty and creativity. They advocate that genuine creativity is the formation of something of use that no one has ever thought of before (Garavan and Deegan 1995). Amabile, Conti, Coon Lazenby and Herron (1996) in a research paper that investigates the development and assessment of a tool that measures creativity in the workplace, propose a definition of creativity. They specify creativity as the conception of new and useful concepts in any field (Amabile, Conti et al. 1996).

Csikszentmihalyi (1988), argued that all creativity is dependent on previous knowledge. A number of other observers tend to take a similar line arguing that creativity is the reorganisation of current knowledge into a new, unique and different way that is useable and practical in some form by some one (Oldham and Cummings 1996; Moorman and Miner 1998b; Sawyer 1999; Sawyer 2000; Johar, Holbrook et al. 2001). This means that a creative product must be useable and functional as well as unparalleled and original (Johar, Holbrook et al. 2001). Consequently, there is a tendency to think of creativity in terms of material manifestations, yet this is not always the case (Sawyer 1999). For example some creativity output may be in the form of a new process.

There is some argument that suggests that like intuition, creativity is a cognitive process which may result in a physical product. Woodman et al (1993) point out that cognitive skills are strongly linked to creativity. Amabile (1997) examined motivating creativity in organisations and says that creativity is a collection of cognitive routes through the problem solver's knowledge, experiences and skills. McCrone (1993) suggests that the process of coming up with a creative idea involves the development of a mind map of the problem and then a juggling of the components until a solution appears. Amabile (1997) concurs, stating that creativity involves wandering through one's memory to find an answer.

Creativity clearly has a link to improvisation in that improvisation involves a degree of variation from standard procedures (Moorman and Miner 1998b). However, as discussed, creativity is a cognitive process and like intuition, definitions of creativity do not address the physical manipulation of resources in a way that diverges from the resources' original purpose. While creativity may be a useful skill, some creative ideas may never be acted upon (Miner, Moorman et al. 2001). Furthermore, in an article on improvisation and jazz, Sawyer (1992) thinks there are two types of creativity. Compositional which takes time and planning and improvisational which is spontaneous. Clearly, some creativity may not involve any improvisation at all, nor must it necessarily be spontaneous (Moorman and Miner 1998b).

Bricolage

The use of resources is an integral part of the activity of improvisation (Miner, Moorman et al. 2001). When indicating that a bricoleur is a person who uses available resources to create order, Weick (1993a), draws a link between bricolage and improvisation. By knowing the resources available, including knowledge, a bricoleur is able to form novel insights as to how these resources can be used when faced with an unanticipated event and so improvise a solution (Weick 1993a). Weick (1993a) suggests that the process of bricolage is improvisation. In a conceptual article that draws parallels from jazz music for managers, Barrett (1998) agrees with Weick (1993a) that improvisation involves bricolage in that it utilises available resources for purposes that diverge from their original purpose. Weick (1998) reiterates his view of the links between bricolage and improvisation by stating that improvisation is dependent on bricolage. Rynes and Trank (1999) also support a link between bricolage and improvisation, by suggesting both are important combined aspects of teaching. Furthermore, it is contended that bricolage is more likely to occur during an improvisational response that is dealing with an unanticipated event (Moorman and Miner 1998b; Miner, Moorman et al. 2001).

The concept of bricolage has its roots in Levi-Strausss' work examining the psychology of pre-literate cultures (1972). Weick (1993a)quotes Levi-Strauss by defining bricolage as a way of using available resources to create order from disorder. He further defines

bricolage as using whatever is at hand to perform whatever task is faced (Weick 1998). Small (1997) looks at how people communicate, sees bricolage as an ongoing reorganization of physical or intellectual resources in order to resolve issues faced in everyday life. Armstrong (1997) while reviewing American Indian ceremonies, suggests that bricolage, in this context, is the bringing together of disparate elements in a way that makes sense. In a discussion paper on consumers' experiences with the internet, Shih (1998) takes a similar stance, arguing that bricolage is rearrangement of items that are available, to implement ideas. Moorman and Miner (1998a) concur by defining bricolage as "making do with the materials at hand". Comparing a jazz musician to a bricoleur, Barrett (1998) determines that bricolage occurs when a bricoleur examines the resources available and draws out order with new combinations of resources. Innes (1999) defines a bricoleur as a person who has collected an array of materials and knowledge without a specific purpose that they may use in the future. Rynes and Trank (1999) take the definition further by suggesting that successful bricolage involves not only the sound knowledge of the resources available, but also a belief in one's intuition along with confidence in being successful. Smith and Culkin (2001) while considering how information can be better analysed, see bricolage as a construction of untidy procedures, resources and directions that arise from a craftsman's skills and consciousness.

Bricolage seems to be a process of creating something useful out of materials available that may not have been intended for that purpose (Miner, Moorman et al. 2001). By drawing on the resources that are available the bricoleur discovers a solution to the problem they faced (Armstrong 1997; Moorman and Miner 1998b). Weick (1993a)sees the first step in bricolage as a regressive review of the materials available and their usefulness. In other words materials are examined to see how they are constructed and how they can be manipulated into resolving a problem (Armstrong 1997; Small 1997; Moorman and Miner 1998b; Barnett and Pratt 2000).

There is some argument about leaving bricolage out of the theory of improvisation (Cunha and Vieira Da Cunha 2003). However, Bricolage is much more than simply pulling things from the past and rearranging them (Innes and Booher 1999). It involves the review of past experiences, an understanding of the capacity and value of materials available, along with a vision of the end result. Bricoleurs are apt at performing a

number of different tasks using what is at hand (Haule 1986; Hatton 1989). Furthermore, bricoleurs are just as likely to plan carefully how to use the materials and perform the tasks as not plan (Conville 1997). Therefore, while it is clear that bricolage can contribute to improvisation in terms of manipulation and variation of the use of materials, bricolage does not necessarily involve time convergence (Miner, Moorman et al. 2001). While bricolage can occur spontaneously, it also occurs with extensive planning over time.

Innovation

Definitions of improvisation indicate that all improvisation consists of some level of innovation, just as it includes some level of creative action (Moorman and Miner 1998a; Moorman and Miner 1998b). Edvardsson et al (1995) point out that in the development of innovative services some degree of improvisation is likely to take place.

In a business or managerial context innovation can be seen as some process, product or service that adds value to the consumer or business (Carnegie, Butlin et al. 1993). Amabile et al (1996) define innovation as the efficient and effective execution of new and beneficial ideas of an organization into successful processes, products or services. Hansen and Wakonen (1997) extend this view in their discussion on the definitions of innovation. They suggest that apart from it being the successful manufacture, implementation and utilisation of new processes, products or services, it presents original answers to issues for the economic and social benefit of society (Hansen and Wakonen 1997). Overall, innovation is defined as a process that originates in creativity and leads to the successful application of creative ideas through action in a way that benefits someone (Schumpeter 1989; Brazeal and Herbert 1999; Volberda 1999; Miles, Snow et al. 2000).

Hine and Ryan (1999) have identified three general terms for innovation in their study on small service firms and innovation. These are product innovations, process innovations and non technical innovations such as management processes (Hine and Ryan 1999). They also suggest that innovation is dependent on knowledge (Hine and Ryan 1999). This view reflects an earlier view by Schumpeter (1989). In his book on

business cycles, Schumpeter puts forward the view that most innovations can be linked to the understanding of either a theoretical concept or practical experience (Schumpeter 1989). In their theory on organisational knowledge creation, Nonaka, Takeuchi & Umemoto (1996) add the suggestion that apart from the creation of novel processes, products and services, innovation also creates knowledge that organisations can learn from and add to their repertoire.

Innovation has some of the elements of creativity and bricolage in that it involves development of something new from something old, however, innovation is different to improvisation (Moorman and Miner 1998b). Although innovation is like improvisation in that it is to some degree dependent on past experiences and knowledge (Raffa and Zollo 1994), it is different in that innovation can be either a planned process or an improvised process (Edvardsson, Haglund et al. 1995; Miner, Moorman et al. 2001). In essence innovation is a process that rearranges something in a particular manner (Nonaka, Takeuchi et al. 1996). Therefore, innovation may occur due to the process of improvisation, but that does not mean that all innovation is improvisational (Miner, Moorman et al. 2001). Some innovation does not embrace the convergence of time between the idea and its implementation, nor does it necessarily embrace a significant variation in the utilisation of resources available (Miner, Moorman et al. 2001).

Other Concepts

As discussed intuition, creativity, bricolage and innovation are the four concepts most widely linked to improvisation. However, a number of commentators suggest that there are other concepts that contribute to the description and definition of improvisation (Miner, Moorman et al. 2001). These concepts include heuristics and communication. Augier et al (2001) link the concept of heuristics to improvisation by implying that when faced with complex issues with insufficient information, people build a simple model of the issue using heuristics. Heuristics has been regularly seen as making sense of an issue through an approximation of the facts (Graves and Corcoran-Perry 1996; Hammond, Keeney et al. 1998; Harvey 1998; Silvester, Anderson et al. 1999; Buckingham and Adams 2000).

Hammond, Keeney et al. (1998) suggest that we use cognitive processes to deal with the intricacies of making sense in decision making. Developing a theory on decision making and heuristics, Harvey (1998) agrees by describing the process of heuristics as determining that incident one is similar to past experience two, therefore, the more incident one approximates past experience two the more likely it belongs in that class. It can be argued that heuristics are cognitive short cuts that are used to change intricate complicated problems to uncomplicated understandings (Shiloh, Salton et al. 2002). Clearly, heuristics do not occur in a vacuum. Sutcliffe and McNamara (2001) argue, in their study on decision making, that heuristics is situated contextually in relation to a person's past experiences.

Gorton (2000), in a study of small business performance variations, does not directly link heuristics with improvisation, but he does state that the functioning of a business is as dependent on the owner's social world as it is on other factors such as production, local markets and finance. In particular he argues that the owner's world does restrict ability of people to process knowledge as they tend to rely on heuristic reasoning (Gorton 2000). It can be argued that heuristics is a cognitive process that aims at making sense of a situation that is complex and unclear (Amabile 1997; Silvester, Anderson et al. 1999; Sutcliffe and McNamara 2001). Therefore, while heuristics may be an aspect of improvisation, like intuition and creativity it is a cognitive process that is not always improvisational.

While they do not seek to define improvisation in relation to change, Brown and Eisenhardt (Brown and Eisenhardt 1997) argue that true improvisation is dependent on two factors, design freedom and communication. Design freedom reflects the idea of improvisation as making it up as events occur (Brown and Eisenhardt 1997). The other factor is an intense level of communication in real time between people operating with a limited number of restrictions (Brown and Eisenhardt 1997). While their research identified improvising within a group as requiring intense communication, some improvisation is carried out by individuals who may not communicate with anyone (Moorman and Miner 1998b). Therefore, communication as a factor in improvisation may only be relevant in groups.

The literature has shown that improvisation is a complex process that is sometimes used as a response to unanticipated events. Its complexity comes from the factors that make up improvisation. These factors are often phenomena in their own right, none the less, they influence the structure, interpretation and implementation of improvisational action. However, there has been little research into which of these elements is used when improvising.

In conclusion, improvisation is a process that consists of several parts. By considering the causes, uses and outcomes of an improvisational response, along with its structure, levels and elements, a model that depicts the processes of improvisation can be developed.

Proposed Model Of Improvisation

Organisations are often faced with unanticipated events. All organisations have a choice to either ignore the event or attempt to resolve it to their advantage (Moorman and Miner 1998b). However it has been argued previously, that organisations rarely if ever ignore these events and do respond in some way. Improvisation is a complex process that is sometimes used as a response to these unanticipated events. Furthermore, while the resolution sought is generally positive or successful, this is not always the case. In order to conceptualise the complex nature of improvisation a model has been developed that shows the elements discussed in the literature pertaining to it. This model can be found below.

The model (figure 3) considers the elements of both Figure 1 and Figure 2 in that it identifies that improvisation is constructed of a number of elements that profoundly influence an improvisational response and that it occurs at different levels from highly improvisational to not improvisational. To help clarify the improvisation process the model indicates three separate phases: pre-improvisational, improvisational and post-improvisational.

Pre-improvisational

The pre-improvisational phase has been distinguished by three factors, the unanticipated event, the type of resolution sought and the factors that influence any actions. Improvisation is triggered by an unanticipated event that affects the business operator in some way. These events as the literature has demonstrated earlier are caused by a variety of factors. The business operator must respond in some way and generally the business operator seeks a solution that will provide the best outcome.

As argued previously most businesses are affected by the turbulent and unpredictable nature of the business environment. This unstable and unpredictable environment means that businesses and organisations face events that are not part of their original intentions (Dickson 1997; Wind and Vijay 1997; Moorman and Miner 1998b). As a result of these unanticipated events some businesses seek a resolution that is not planned (Moorman and Miner 1998b).

In seeking a solution the business operator may be seeking such outcomes as adding value, improving aesthetic appearances or avoiding a catastrophe, or a combination of these three. The solution sought by the organisation utilising improvisation is determined by the unanticipated event. For example, a solution sought may be the aversion of a disaster as in the case of the Mann Gulch disaster (Weick 1993a). Alternatively it may be to add value as Moorman and Miner (1998b) suggest in their research on product development. Barrett (1998) in looking at ways of improving customer service at British Airways, identified how improvisation can be used to seek a solution that is both aesthetically pleasing and adds value to an organisation. As the unanticipated event determines the outcome, the process of achieving the outcome is influenced by a number of internal and external factors.

The internal influences include the operator's declarative and procedural knowledge, while the external influences include time available, circumstances and resources available. Moorman and Miner (1998a)proposed that combined procedural and declarative knowledge is likely to affect the speed at which improvisation takes place as well as the way in which resources are used. In other words declarative and procedural knowledge moderate the relationship and outcome. The external factors include the

amount of time to respond to the unanticipated event, the resources available and the circumstances in which the event occurs. These elements provide the boundaries within which improvisation takes place. Both factors influence the degree of improvisation that takes place. For example the improviser using their procedural and declarative knowledge may identify an alternate use of a resource that is significantly different to its original purpose such as the case of the emergency surgery by Dr Wallace (Cheetham and Chivers 2000). In the case of the ship that lost all power, it was a combination of procedural and declarative knowledge that enabled the crew to safely berth the ship (Hutchins 1991). Alternatively, circumstances and time limitations may affect the degree to which time converges between the conceptualisation of a solution and its implementation as in the case of the fire-fighter lighting a fire in an attempt to save himself and his crew (Weick 1993a). There are other influences as well, these may be defined as institutional pressures (Bada, Aniebonam et al. 2004). These influences include issues such as government regulations, increased competition and increased customer expectations (Bada, Aniebonam et al. 2004).

Improvisation

The improvisational phase involves a distinctive factor, time convergence. Time convergence is the time gap between conceptualising a response and the implementation of this response.

The time convergence factor indicates the amount of time taken by the organisation from when they conceptualised a response, until they implement the response. The proposition is that the longer the time gap taken the more likely planning is instituted and the less likely the response will be improvisational and the shorter the time gap the more improvisational the response. In other words, the less time taken to plan a response the more improvisational the process.

The level of improvisation could be considered by taking into account the amount of time convergence that occurs during the process of implementing a resolution to the unanticipated event. Where time convergence is narrow the level of improvisation may be considered high. Where there is little time convergence improvisation may be considered low.

Post-improvisation

The final phase is the outcome of using improvisation to resolve an unanticipated event. The outcome may be either successful or unsuccessful. An outcome is successful if it achieves the aims of the participant in resolving the unanticipated event. This is shown in the literature where the emergency surgery saved the airline passenger's life and the ship was prevented from having an accident. An unsuccessful outcome is where the resolution implemented does not have the intended effect of resolving the unanticipated event. An example of an unsuccessful outcome is the failure of the improvisational action of one of the fire-fighters in the Mann Gulch Disaster. In this case most of the fire-fighting crew lost their lives through not understanding the actions of their team leader (Weick 1993a). Outcomes may not always be anticipated or intended. One unanticipated outcome that has been be observed has been organisational learning. Miner and Moorman (2001) have argued that awareness and comprehension often occurred during improvisation leading to learning. However, they argue that this learning was not necessarily an intended outcome (Miner, Moorman et al. 2001).

Other Factors

As previously mentioned, bricolage, creativity and intuition also affect improvisation. While these constructs on their own do not constitute improvisation, they do influence the process. For example bricolage is the use of materials that are at hand in order to construct a solution to an unanticipated event. Creativity, as previously stated, is the reconstruction of knowledge into something new and useful, while intuition is the identification of possible solutions arrived at spontaneously. Each of these factors affect both time convergence and resource usage. The emergency surgery performed by Dr. Wallace clearly has elements of all three, intuition, creativity and bricolage (Cheetham and Chivers 2000). Rather than show this as separate items influencing improvisation it can be assumed that creativity and intuition are part of the internal

influences in that they tend to be conceptual processes. Bricolage is part of the external influences, in that it relates to the resources available.

Using the foregoing analysis of the elements that impinge on improvisational processes a model which incorporates this processes has been developed. This model of improvisation is shown below in Figure 3.

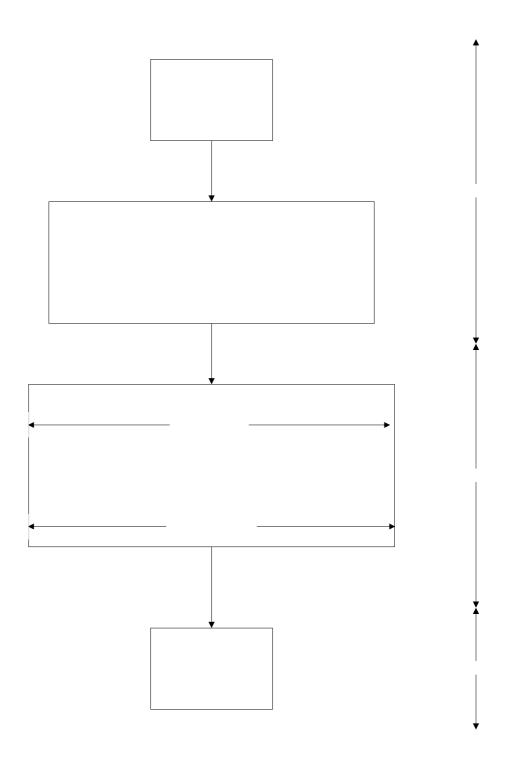


Figure 3: Model of Improvisation

Rationale For The Model

The main strength of this model is that it clearly demonstrates the use of time convergence in highly improvisational actions. It also demonstrates that if an action consists of detailed planning it is not considered to be improvisational. This is a critical aspect of improvisation as, improvisation can be considered as occurring when time convergence is present.

The model combines the elements of both Figure 1 and Figure 2. It demonstrates that improvisation has a structure that influences its occurrence and that improvisation occurs on different levels. It depicts that the outcomes, either successful or unsuccessful are influenced by external and internal factors. It should be pointed out the purpose of the proposed model is to graphically illustrate improvisation as a process and therefore there are some weaknesses with the model.

Firstly, one of the weaknesses with the model is that literature implies that improvisation is often a chaotic process without clear definitions or phases. The model suggests that this is not the case and that the process of improvisation is a step by step process. Another weakness is that the model suggests that the influences are not ongoing. However, as the improviser adapts to emerging events they are continually influenced by either internal or external factors. Furthermore, the model shows high improvisation at one end with low improvisation at the other end.

The model helps to illustrate that improvisation is a complex process that consists of a predominant element, a cognitive process. The cognitive process is the formulation of a response towards a specific outcome. In other words the process of improvisation is an amalgamation of procedural and declarative knowledge, along with intuition, creativity and bricolage where time converges between design and execution through a observable action that is influenced by the external circumstances of the organisation. The action is observable in that the improviser is seen as doing some thing. It may be that the complexity of improvisation is the reason why to date there has been little empirical research and why it is an area that urgently needs further exploration (Crossan and Sorrenti 1997; Moorman and Miner 1998b; Burke and Miller 1999).

Moorman and Miner (1998b) argue that improvisation is what organisations should practice in order to flourish. The conceptual model allows the application of the various elements of improvisation to an organisation's improvisational activities. The application of the model to business processes could lead to the greater awareness of how improvisation is used, giving researchers, academics and practioners a better understanding of the improvisation process. Given the importance of small business to various economies understanding some of the activities they engage in to respond to unanticipated events can only improve understanding of small business.

Clearly, businesses are responding to a turbulent environment through improvisation (Poolton and Ismail 2000). Gorton (2000) argues that the strategies followed by small business are predetermined to include improvisation. Therefore it appears that improvisation is occurring all around us in businesses (Crossan and Sorrenti 1997; Barrett 1998; Mirvis 1998). Ciborra (1999) reinforces this view by arguing that improvisation is pervasive in every day economic activity. Consequently there have been several conceptual and empirical studies into the phenomenon.

Some of the conceptual literature looks at improvisation with the view to describing what improvisation is in a theoretical sense without examining the actual use of improvisation (Weick 1993a; Weick 1993b; Berliner 1994; Crossan and Sorrenti 1997; Orlikowski and Hofman 1997; Weick 1998; Moorman and Miner 1998b; Augier and Vendelo 1999; Ciborra 1999; Sawyer 2000; Augier, Shariq et al. 2001). Some of the empirical literature address the phenomenon of improvisation by examining its use within organisations (Cleary and Groer 1994; Edvardsson, Haglund et al. 1995; Aram and Walochik 1997; Orlikowski and Hofman 1997; Moorman and Miner 1998b; Cheetham and Chivers 2000; Dyba 2000). Other studies have discovered improvisation through the investigation of other phenomenon without exploring the use of improvisation in any detail (Borko and Livingston 1989; Jackson 1995; Embrey, Guthrie et al. 1996; Lau, Doze et al. 1999; Sashittal and Jassawalla 2001). Some of the research into improvisation has been conducted by authors retrospectively; that is they have examined specific events of improvisation long after they have occurred (Weick 1993a; Cheetham and Chivers 2000; Augier, Shariq et al. 2001; Mitroff and Anagnos 2001).

The consensus from the literature is that improvisation not only occurs but is constructed of a number of elements with each author exploring one factor or another independently. Overall it has been argued that improvisation is a complex process that is constructed of time convergence and is used in response to an unanticipated event (Weick 1993a; Weick 1993b; Crossan and Sorrenti 1997; Orlikowski and Hofman 1997; Weick 1998; Moorman and Miner 1998b; Augier and Vendelo 1999; Ciborra 1999; Sawyer 2000; Augier, Shariq et al. 2001). Furthermore the use of improvisation consists of the combination of experience, knowledge and resources (Brown and Eisenhardt 1997; Crossan and Sorrenti 1997; Weick 1998). It seems that improvisation occurs along a continuum that reflects the variability between an action that is low in the use of improvisation to an action that is highly improvisational. A number of concepts have been linked to improvisation that on their own are not necessarily acts of improvisation, but when combined in conjunction with time convergence can become acts of improvisation. The concepts include intuition (Crossan and Sorrenti 1997), creativity (Weick 1993a; Moorman and Miner 1998b), bricolage (Weick 1993a; Weick 1993b; Barrett 1998; Rynes and Trank 1999; Miner, Moorman et al. 2001), and innovation (Edvardsson, Haglund et al. 1995; Moorman and Miner 1998a; Moorman and Miner 1998b).

Need for research into improvisation

Despite the views within the literature about the widespread use of improvisation, Crossan and Sorrenti (1997) raise concerns in relation to organisational theory that improvisation research has been ignored. Furthermore it has been argued that the literature covering the concept of improvisation, either conceptual or empirical, tends to be somewhat limited (Weick 1998; Moorman and Miner 1998b; Miner, Moorman et al. 2001). As a result of this limitation a number of authors call for further research into the phenomenon of improvisation (Edvardsson, Haglund et al. 1995; Crossan and Sorrenti 1997; Weick 1998; Moorman and Miner 1998b; Dyba 2000; Miner, Moorman et al. 2001). It has been argues that the field of improvisation is still somewhat fragmented with few conceptual frameworks that place improvisation within a business process (Vera and Crossan 2004).

Dyba (2000) calls for further research into improvisation on the basis that a better understanding of improvisation could lead to better understanding of the process of software development. While Dyba's view limits the research to the software industry, Davenport (2000) argues that a better understanding of processes usually leads to better implementation of those processes. Therefore, it can be argued that Dyba's view supports the call for further research into improvisation, which can be extrapolated out more broadly to include its application in all other industries and fields.

A broader view of the need for research into improvisation is taken by Moorman and Miner (1998b). They admit that there are many questions to be answered about improvisation as a result of their study and they propose that there should be further research into improvisation to examine what causes the phenomenon (Moorman and Miner 1998b). They go on to question how important improvisation is to businesses during the start up phase and suggest that this is a particular area that needs consideration (Moorman and Miner 1998b). Miner, el al. (2001) consider the potential for further research in improvisation to include the fields of entrepreneurship, technological innovation and unplanned change. They recommend that research into entrepreneurial processes and the use of improvisation by entrepreneurs, because of entrepreneurs' perceived reluctance to create substantial plans (Miner, Moorman et al. 2001). Furthermore, appreciating an entrepreneur's method of solving problems would greatly assist the entrepreneur's mentors, supporters and advisors (Buttner and Gryskiewicz 1993). Additionally, Rickards et al (2001) noted that improvisations vary each time they occur. Miner, et al (2001) suggest that this variation in the use of improvisational responses would be a propitious field to study.

Weick (1998) states that in certain circumstances improvisation may be of benefit, while in other circumstances it may be a liability to an organisation and that this needs to be researched. Miner et al (2001) agree, saying that research into improvisation would provide an opportunity to appraise its value to organisations.

There is a tendency for many researchers to see improvisation as a metaphor for managing and organising (Crossan 1998). Moreover, improvisation is a pervasive process that is often taken for granted (Weick 1998). However, improvisation is more

than a metaphor and far too influential to be taken for granted as it can have a profound effect on an organisation's success or failure. Furthermore, improvisation is not something we and ignore or avoid and is certainly not the antithesis to strategic planning (Vera and Crossan 2004). This opens the opportunity for research into the process of improvisation to ask why do businesses improvise, how do businesses improvise, what are the outcomes, and are they beneficial or harmful?

Research Question

Undoubtedly improvisation is a neglected area of research. The lack of empirical investigation into the causes, uses and outcomes of improvisation within businesses diminishes the ability of entrepreneurs, advisors and policy makers to comprehend to what extent improvisation is utilised by an organisation. It is clear that improvisation is a pervasive and endemic phenomenon that as a complex process has a profound effect upon businesses as the model developed shows.

The model provides a basis by which to explore the extent to which the improvisational processes reflect the actual experiences of businesses. To enable a closer examination of improvisation, the following question will guide the methodology: "To what extent does the proposed model of improvisation reflect an improvisational response as a process when businesses are faced with an unanticipated event?"

Having determined the need for research into improvisation based on an identified gap in the literature, a research question has been developed. The methodology by which the research question will be explored is presented in the next chapter. The methodology needs to be determined in order to ensure that the most appropriate process is utilised to meet the purpose and objective of this study.

Chapter Three: Finding the Way to the Stories

Introduction

The purpose of this chapter is to present the research design. The chapter begins by considering the purpose and objectives of the study. The objectives are outlined in general terms in relation to the background to this study, and in specific terms in relation to the literature review. From these objectives the main research question is developed and four supplementary questions emerge. The next part of this chapter considers the research approach and argues that the most effective and efficient approach would be a qualitative methodology. The chapter then presents the sample chosen and data collection method to be used. A semi-structured interview for the data collection was chosen and, the interview framework is discussed. This framework explores the setting for the interviews and the process for conducting the interviews. Finally, the chapter closes with a discussion on the approach taken for data analysis and presentation.

One view of research is that its main objective is to advance theoretical thinking and discover new knowledge (Kumar 1996; Oliver 1997; Campbell 1999; Byrne 2001; Thyer 2001). An alternate suggestion is that research seeks to solve problems (Sproull 1995; Moore 2000; Pelosi, Sandifer et al. 2001). Whatever the research objectives are, it is critical that the chosen methodology is able to achieve these objectives; otherwise the value of the research is questionable (Maxwell 1996). Therefore, choosing an appropriate methodology requires careful analysis of the research objectives and different methodologies. Furthermore, the research activity needs to be well designed so that the processes function efficiently and effectively in order to successfully achieve the research objectives (Maxwell 1996). The purpose of this chapter is to explain the methodological approach to answering the research question.

Research Purpose And Objective

The purpose and objectives of this study have emerged from the discussion in previous chapters. From the purpose and objective the research question is developed.

Purpose

The introductory chapter considered the role and effect of small business on the economic viability of Australia in general terms. It acknowledged that small businesses play a significant role in the economic activities of most countries and contributed substantially to the economic, social and political stability of a country. The chapter further discussed previous research into the activities of small business and noted that the there has been research on entrepreneurship, success and failure of small businesses but little research into how businesses respond to unanticipated events that are a result of the turbulent and unstable business environment. The purpose of this study is to contribute to the broad research that has been conducted into small business activities by investigating how small businesses respond to their environments.

Objective

The literature review chapter identified that improvisation is possibly used by small businesses to respond to unanticipated events. Furthermore, improvisation was clearly identified as a field that required further study in order to understand its effect and use by businesses. To contribute to the body of research on improvisation, a guiding question was developed based on the proposed model of improvisation developed from the literature. The objective of this study is, using the model as a guide, to discover to what extent improvisation is used as a process to respond to unanticipated events in start-up businesses.

Research Question Reviewed

The literature review has identified that despite improvisation being such a pervasive activity common to almost every business, it is a neglected area of formal research. The literature further identifies a number of factors that contribute to the use of

improvisation by business operators, managers and employees. The literature acknowledges that these factors have not been adequately investigated in order to ascertain their influence and use when business operators are improvising. By considering these factors identified in the literature a proposed model of improvisation has been developed. This model identified a number of factors that according to the literature constitute the phenomenon of improvisation. A guiding research question arises out of the model. The question is

"to what extent does the model of improvisation reflect the improvisational response as a process when small businesses are faced with an unanticipated event?"

The guiding question can achieve the objective of this study of adding to the body of knowledge by exploring the model against actual improvisational experiences of practioners. However, the guiding question alone is too broad to adequately address the purpose and objectives of this study. Consequently, the guiding question has been developed further.

Developing the research question

This study requires more detailed research questions that go beyond the guiding question in order to fulfil the purpose and objectives of this study. The guiding question reflects the overall purpose and objectives of the research, but does not indicate how the purpose and objectives can be met (Wengraf 2001). This is because in order to achieve the purpose and objective, the participants need to be asked to define and account for their actions when they improvise (Neuman 2000). Therefore, the guiding question needs a number of supplementary questions that will direct the research activity (Wengraf 2001).

Five supplementary questions have been drawn out of the guiding question, each question reflecting a part of the model. These have been summarised in Table 5. Firstly, the question of an unanticipated event has been considered. To enable the study to follow the model, it was critical that events discussed by the participant were unanticipated. This allowed the research to focus on acts of improvisation that were

caused by unanticipated events, rather than anticipated and pre-planned events. The second question addressed the resolution sought in response to the unanticipated event. As businesses do not operate in a vacuum and inevitably respond in some way, the question needed to ask what resolution was sought by the participant. The model shows that improvisation is influenced by a number of factors; the next question focused on this by asking about the influences that impacted on the improvisational actions of the research subjects. The model suggests that improvisation occurs at different levels along a continuum, in that actions could be considered somewhere between either highly improvisational or not improvisational at all. The fourth question is concerned with the level of improvisation, in that it asked to what extent is time convergence evident as the participant resolves the unanticipated event. This question would allow the identification of actions by the sample as being to some degree improvisational. Finally the model demonstrates that when improvising, businesses are seeking specific outcomes. However, the outcomes may not be what the business expects. Therefore the fifth question addresses to what extent the outcome, either positive or negative, meets the expectations of the business. The purpose of each question, the questions and the rationale for each question is summarised in the Table 5 below.

Summary of Research Questions

Supplementary Research Questions Rationale		
Purpose	Research Question	Rationale
Q1. Determine which improvisational activities are caused by an unanticipated event.	To what extent was the event that lead to improvisational activity unanticipated in relation to the business plan of the organisation?	From time to time businesses face events that they have not considered in their business plan. These events range in seriousness from non-threatening to life threatening crises. Responses to anticipated events tend to be preplanned, and therefore not likely to be improvisational. The rationale for this question is to ensure that the event being investigated is not one that has been anticipated and does not have a response prepared in the business plan of the business.
Q2 Determine what resolution is being sought in response to the unanticipated event	What resolution is sought by the participant in response to the unanticipated event?	Business can not operate in a vacuum and ignore events that directly affect their business. The model shows that businesses seek a response that either improves the appearance, adds value or averts a negative outcome, or a combination of these three. The question will identify what resolution is sought by the participant in response to the unanticipated event.
Q3. Determine what influenced the improviser to make the decisions that determine which actions to take	What influences impact on the improvisational actions of the research subjects?	The model shows improvisation never occurs in a vacuum, but is influenced by a number of factors. These factors are both internal and external. This question will identify how each improviser is influenced in their decisions.
Q4. Determine if time convergence is utilised to resolve the unanticipated event and at what level	To what extent was the action taken by the participant improvisational?	The model has identified that improvisation occurs at different levels along a continuum between highly improvisational to not improvisational at all. The model identified a factor that help determine if an action is improvisational. This factor is time convergence. This question will determine if the response to the unanticipated event is improvisational or not, and if so at what level.
Q5. Determine if the use of improvisation results in a successful or unsuccessful outcome	To what extent does the outcome, positive or negative, meet the expectations of the business in addressing the unanticipated event?	All businesses seek a resolution to an unanticipated event. However, the model suggests that not all uses of improvisation are successful. This question will enable the separation of which actions were successful and which were not successful.

Table 5

These questions required the participants to describe their experiences. The questions ensured that the researcher developed a research approach that allowed the participants to tell their stories of improvisation. It is often by telling stories that understanding and knowledge of a phenomenon emerges (Pugach 2001).

In summary, the objectives of the research are to investigate the process of improvisation in a way that enhances understanding of improvisation for the researcher, the participants of the research, and users of improvisation as well as future researchers who wish to investigate the phenomenon. Furthermore, in order to achieve the objectives, the study needed to focus on the decision makers in a business setting. This ensured that the study was directed to those people who can best answer the question. Finally, these objectives and the questions derived from the objectives guided the choice of method used in conducting this research.

Research Approach

All researchers whether quantitative or qualitative feel they have something to discover that is of value to the community (Denzin and Lincoln 1994). Searle (1999) goes further and states that some particular phenomena merit examination for its own sake. How researchers go about discovering something of value is determined by their methodology. A researcher therefore needs to consider which research method is most likely to achieve the outcomes sought by the researcher. Why one method should be more appropriate than another is relative to the nature and purpose of the research. It is the structure of the question and objectives, as well as the values of the researcher and the participants that often determines the methodology (Black 1993; Morrow and Brown 1994). Furthermore, each research method has its own pre-determined view of what it is researching (Burke 1985; Burns 2000). Each research method has its own way of looking for answers to the research question in that each methodology is designed to collect certain types of information and not others (Kane and Brun 2001; Arminio and Hultgren 2002; Broido and Manning 2002). Consequently, it is recognised that that each methodology reveals disparate renditions of the same topic (Fine, Weis et al. 2000).

It is impossible not to enter a field of research without some opinion as to what one expects to find (Malterud 2001). As a result the chosen methodology is a reflection of the epistemological and ontological perspective of both the researcher and participant (Burrell and Morgan 1992; Black 1993; Punch 1994; Cohen, Manion et al. 2000; Bryman 2001). This is one of the paradoxes of any research. People can only observe

what they know and understand to be reality, no matter what method is chosen (Burke 1985; Burrell and Morgan 1992; Bouma 1993; Mackay 1994; Solomon and Draine 2001). People simply cannot suspend their suppositions of reality, not even for a short time (Taylor and Bogdan 1998). Therefore, the choice of methodology requires careful, independent consideration of how the objectives of the research can be achieved. This includes choosing the most appropriate methodology, most appropriate sample, the questions to be asked and the most appropriate method of data collection and analysis.

Choosing a methodology

It is generally argued that data collection can be either quantitative and qualitative in nature (Sproull 1995; Creswell 1998; Burns 2000; Cohen, Manion et al. 2000; Gay and Airasian 2000; Merry, Davies et al. 2000; Neuman 2000; Wiersma 2000). Each method has its own strengths and weaknesses that reflect the methodology's structure and process of implementation (Mays and Pope 1995; Gay and Airasian 2000; Wiersma 2000; Holosko 2001). The diversity of approaches within both: quantitative and qualitative studies is further differentiated in their ability to validate the reliability of the data collected (Mays and Pope 1995). Research approaches need to be considered in light of the extent to which they can best assist the researcher address the research question. The value of the methodology is dependent on the objectives of the study (Kumar 1996; Merry, Davies et al. 2000; Bryman 2001). Consequently, researchers have accepted both quantitative and qualitative methods as viable options (Bock and Sergeant 2002).

Chosen method

Essentially, this research is about human behaviour, how did the participants respond to an unanticipated event in the course of running their businesses. Furthermore, there is a consistent belief that knowledge comes from experiences and that experiences are socially constructed (Pugach 2001; Ezzy 2002). Consequently, the objectives can not be fully achieved unless there is reference to the meanings that the participants attach to their experience with improvisation (Guba and Lincoln 1994). A constrained methodology may prevent the exploration of complex social reality (Punch 1994).

Qualitative research allows for the investigation of a socially constructed view of what is being experienced by the participant and what it means for the participant (Denzin and :Lincoln 1994).

It has been identified that not all acts of improvisation are the same, nor are all acts of improvisation successful. It is the unpredictable and variable nature of improvisational responses along with the purpose of explaining how people improvise that determines which research approach is appropriate. Quantitative research primarily focuses on the statistically measurable aspects rather than the explanatory descriptive accounts of a phenomenon (Creswell 1994; Campbell 1999; Burns 2000; Hollway and Jefferson 2000; Mason 2000; Neuman 2000). It has been argued that quantitative research is often carried out in very controlled and contrived situations, and consequently, as a result quantitative methods of research tend to leave out the human element by not allowing the individual participants to explain what they did and why (Reason 1994; Hollway and Jefferson 2000; Merry, Davies et al. 2000). A quantitative approach is not appropriate in this study as improvisation is a phenomenon that is subject to various interpretations according to particular circumstances of each case and needs to be investigated using a method that allows the capture of these variations.

Qualitative methods are based on the belief that people experience phenomenon subjectively (Burns 2000; Cohen, Manion et al. 2000). The goal of qualitative research is to gather what the participants think and understand about a phenomenon (Burns 2000; Cohen, Manion et al. 2000; Holosko 2001). One of the strengths of qualitative approaches to research is that it provides insights to experiences that cannot be gathered by quantitative methods (Burns 2000). Furthermore, it has the capacity to provide rich descriptions of the participants' experiences rather than a statistical generalisation (deMarrais and Tisdale 2002).

As qualitative research is as competent as quantitative in producing insights, understanding and knowledge, the choice needs to reflect the purposes of the research (Merry, Davies et al. 2000). Qualitative research tends to be more concerned with developing theory and explaining situations than quantitative research (Burns 2000; Wiersma 2000). It does this by concentrating on interpretation of the way people think (Ezzy 2001). It is clear that while each methodology seeks to provide different

explanations to either the same or different things, the methodologies do not use the same criteria (Burns 2000). Therefore the chosen methodology must be determined by the research objective and be able to address the research questions.

The overall objective is to develop a greater understanding of how improvisation is used and perceived by the practioners in a way that enhances the use of improvisation as a business tool. Qualitative research is particularly suited to studies where understanding of a process in which events and actions occur (Maxwell 1996). Furthermore, as the research is also concerned with the investigation of the participant's perceptions of an everyday activity and the meanings they attach to these perceptions, a qualitative methodology is more favoured (Outhwaite 1987; Rabinow and Sullivan 1987; Denzin and :Lincoln 1994; Silverman 1997; Strauss and Corbin 1998; Taylor and Bogdan 1998; Marshall and Rossman 1999; Blaikie 2000; Hollway and Jefferson 2000; Mason 2000; Merry, Davies et al. 2000; Neuman 2000). Taylor and Bogdan (1998) argue that qualitative research is best suited to investigating a phenomenon, in this case improvisation, from various points of view. Creswell (1998) supports this by stating that qualitative research allows for the exploration of an individual's meaning of a life experience, such as improvisation. Essentially, each participant is asked to tell their own version of how they improvised. By getting each participant to tell how they experienced improvisation a growing set of theoretically defined generalisations can be achieved (Silverman 1999). The generalisations are built from the real life experiences of the participants (Mason 2000). These generalisations will add to the knowledge and understanding of improvisation as it is often through stories of people's experiences that we can come to understand what they experienced (Pugach 2001).

Qualitative research allows the participant to give personal stories and to reflect on what happened and why in a way that quantitative research does not (Baker 1994). Qualitative research also adds to the ongoing revision and enrichment of the understanding of the experience of the participants (Lincoln 2001). As a result there is a further advantage of qualitative research in that it is often empowering in that the knowledge gained is often constructed jointly between the researcher and the participant (Ebbs 1996). This has the effect of allowing the participant to learn more about the process through reflection as they tell of their experiences with improvisation (Hall, Harris et al. 2000; McDrury and Alterio 2001). As the participants learn more about the

nature of improvisation they may alter their behaviour accordingly (Moore 2000). Possibly, to become either better planners or better improvisers.

It has been identified that not all improvisations are the same, nor are they all successful. This suggests that there are substantial vagaries between each improvisational example. The chosen methodology needs to be able to address this issue adequately. Qualitative research methods are ideal for investigating and understanding processes that end in specific outcomes (Maxwell 1996). Furthermore, improvisation has been identified as a complex process that seems to be taken for granted and qualitative research has been seen as a useful methodology to investigate such a situation (Strauss and Corbin 1998).

This research concentrates on a group of people who have experienced a similar phenomenon, namely improvisation. Qualitative research tends to focus on people who have experienced the same phenomenon and attempts to persuade them to articulate their experiences of the phenomenon, to build up a better understanding (Creswell 1998; Merry, Davies et al. 2000). This has the advantage of enriching the data collected through common experiences of the participants and provides a varying view of the same phenomenon. Qualitative research is not undertaken to prove or disprove previous findings, nor does it generally quantify data collected, but it is intended to enrich and revise understanding of experiences and actions (Lincoln 2001; Davies and Dodd 2002). This study seeks to assess the conditions and actions of a group of business operators relating to improvisation, in an attempt to build a better understanding of the phenomenon of improvisation.

Within qualitative research are a number of different ways of investigating a particular phenomenon. One method of investigating a particular phenomenon is the case study method. A case study is an in-depth investigation of an unique event that will provide an analysis of the phenomenon being researched (Sommer and Sommer 1991; Larsson 1993; Hartley 1994). Basically, case study is telling a story with the intention of extending understanding and learning of a phenomenon (Brandell and Varkas 2001). While it is not limited to individuals, it can focus on individual units, that is, case studies focus on single events or phenomena (Brandell and Varkas 2001). Therefore, the most effective methodology is a qualitative approach using a case study method.

Overall, it is clear given the purpose and objectives of the research, that a qualitative method is the most suitable. It will develop a greater understanding of improvisation by allowing the participants to tell their stories of improvisation in relation to the model developed from the literature. The chosen methodology also determines who can and cannot participate by restricting the sample.

Sample

The nature of a study being undertaken guides the selection of people to participate in the study (Morse 1998; Blaikie 2000; Wiersma 2000; Goodman 2001). That a qualitative approach has been identified as the optimal methodology for this research, affects the sample to be chosen. The objective of the research is to demonstrate how improvisation has been used by business operators when faced with an unanticipated event. This purpose limits the range of the study (Miles and Huberman 1994). This study is about gaining insight and understanding of a single phenomenon that has been experienced by all participants who are able and willing to provide a rich detail of their experiences of improvisation (Thompson 1999). Consequently a non-probability sample or purposeful sample is required (Maxwell 1996; Burns 2000; Ezzy 2002). This is where the sample was determined by a set of criteria that allows for the collection of information from a particular relevant source (Maxwell 1996; Gay and Airasian 2000; Keats 2000; Neuman 2000; Warren 2001), the size of the sample having less importance than the need to meet the criteria (Goodman 2001).

One criteria for the sample was that the participants were typical, that is all participants have used improvisation as a business process to resolve an unanticipated event (Creswell 1998; Burns 2000; Merry, Davies et al. 2000). A further criteria for determining the participants was accessibility (Taylor and Bogdan 1998). The location and availability of people to participate often determines who contributes to the study (Denzin 1994). Selecting the time and location can have a significant impact on the research (Maxwell 1996). As the research has a business setting, it may have been difficult from time to time to access suitable participants due to availability.

Consequently, the participants were chosen on the basis of them having experienced the phenomenon, and that they were accessible and available to the researcher.

Despite the pervasive nature of improvisation, these two initial criteria present a significant problem in firstly locating and secondly determining who has improvised. While, the literature has identified a number of potential participants, the sample must be contained to a manageable level and quantity. One group of potential participants suggested in the literature has been entrepreneurs. Miner, Moorman et al, (2001) have suggested that it would be prudent to investigate the use of improvisation by entrepreneurs during the start up phase of their business as this is often the least predictable period of a businesses operation. However, while there is certain merit in considering new businesses, there are some logistical difficulties in identifying and accessing entrepreneurs. They are not always easily identifiable or accessible. Consequently, there was a need to identify a potential group of people who were likely to have experienced improvisation, are easily identifiable and accessible and were just starting a business.

One such group is the participants of the New Enterprise Incentive Scheme (NEIS). NEIS is a federal government funded programme designed to help unemployed start their own businesses. At the time of their application for NEIS they need a feasible business idea that would enable them to become self-employed within twelve months. These people often have limited resources and little or no capital to invest into their business venture. Many of the NEIS clients also have very limited business experience. Furthermore, they are required to undertake small business management training and prepare an extensive business plan. Anecdotal evidence collected in a previous unrelated study suggests that NEIS clients have a high propensity to improvise due to the limited resources and low capital they have available.

Department of Employment and Workplace Relations, the government department that oversees NEIS has been approached for their view on the study and choice of participants. Their response was supportive and they offered to assist through posting invitations to participate to NEIS clients. Furthermore, they expressed an interest in looking at the study, as there has been to date virtually no studies of NEIS participants.

Considering the accessibility factor, the participants needed to come from a limited geographical area. This allowed reasonable access to the participants to interview them. With Brisbane being the geographical centre, the area that participants were drawn from an area that extended from Tweed Heads on the South, west to Toowoomba and north to Gympie. This gave a pool of approximately 280 NEIS clients that are all within a reasonable travel distance of Brisbane.

It has already been suggested that the process of setting up a business is the most likely time that improvisation will be used. However, one of the difficulties is determining how long a new business is in the start-up phase. There is no clear consensus on this at all. Consequently, an arbitrary period needs to be considered. For the purpose of this study, the start-up phase of each NEIS client was be considered to be the first six months of operations and each participant was interviewed within the first twelve months of operating their business. This had a number of advantages in that it gave the participant a clear time period during which they may be expected to be interviewed and when that period will end. It allowed for a reasonable turnover of participants in a way that gave a reasonable number the opportunity to take part in the study. It covered a critical time when those with little business experience have yet to gain experience and therefore were likely to face considerably more unanticipated events through they lack of experience. The disadvantage was that this was also a very difficult and trying time for the participants and consequently the NEIS clients could have been reluctant to participate.

Several letters were sent out through DEWR, and some of the NEIS providers. Exactly how many letters is unclear as neither DEWR nor the providers kept a record to indicate the actual number. The letter invited NEIS clients to return the letter through Swinburne University of Technology with their contact details if they wished to participate. Seven presentations were made directly to NEIS clients as they attended their NEIS training. At these presentations it was explained what the study was about, and the clients were left with a letter that they could post in with their contact details if they wished to participate. One hundred and twenty one people responded and of these twenty nine were interviewed. Eight of the interviews were not included in to this study for various reasons which are discussed in the conclusion. One interview consisted of two people who were partners in the business. As part of maintaining confidentiality,

genders along with names have been changed. There were nine female and eleven male participants. This sample is not indicative of all small business and this issue has been addressed in the conclusion.

In summary, the sample was a participant of NEIS, who had been operating their business for no more than twelve months at the time of the interview and had used improvisation during the first six months to resolve an unanticipated event. Furthermore, they needed to be accessible to the researcher and willing to participate in the study.

Data collection method

The most appropriate data collection method is one that best suits the research purpose and objectives as well as fitting the chosen methodology (Darlington and Scott 2002). Qualitative research calls for particular data collection methods to be used that reflect the topic being investigated (Byrne 2001). As the research question was asking the participants to explain their experiences, the researcher needed to become immersed in the data collection process (Holosko 2001). Therefore, having determined that a qualitative approach is the most appropriate methodology, the most appropriate data collection method needs to be considered.

Making an appropriate choice of data collection technique does have profound consequences for the research, as the wrong choice of data collection techniques can lead to errors in the data (Scherpenzeel and Saris 1997). Apart from qualitative data collection methods such as participant observation, document and artefact analysis, one data collection method well suited to qualitative research is interviewing (Fetterman 1998; Mitchell 1998; Marshall and Rossman 1999; Blaikie 2000; Burns 2000; Neuman 2000; Goodman 2001; Pugach 2001). Interviewing is suitable where direct observation is difficult and documents and artefacts may not be available (Taylor and Bogdan 1998). It can be also argued that observations and analysis of document content does not adequately expose the participants thoughts and feelings of their experiences (Goodman 2001). It is the thoughts and feelings that the participants have experienced when

improvising that was part of the focus of this study and so the data collection method needed to be the one best suited to the research questions.

The supplementary research questions in Table 5 required certain types of data in order to answer them well. Interviewing, is a process of data collection that is ideally suited to the collection of this type of data. It tends to be intentional interaction between two or more people where one or more persons is seeking to elicit information about a phenomenon (Gay and Airasian 2000; Wengraf 2001). This is because interviewing is best suited to collect information about beliefs, motives and feelings (Campbell 1999; Crano and Brewer 2002; Darlington and Scott 2002). Interviewing can be an excellent resource for identifying people's perceptions of certain situations (Eisner 1991; Kane and Brun 2001). By interviewing different participants about the same sort of event, different perceptions are obtained (Denzin and Lincoln 2000; Darlington and Scott 2002). An interview allows a researcher to access events and experiences that can not be accessed any other way (Gubrium and Holstein 2001). It does this by directing the participants back in time or to a place where the phenomenon occurred (Eisner 1991; Wilson 1996; Kane and Brun 2001). Furthermore, it allows for the construction of the data jointly between the researcher and the participants and so move towards shared meanings about events and experiences (Dingwall 1997; Silverman 1999; Gubrium and Holstein 2001; deMarrais and Tisdale 2002). Interviewing allows the participants to use their own words to tell their own story (Silverman 1999). Essentially, an interview is a social interaction that allows the researcher to enter the lives of the participant that can lead to a broad understanding of an event that has occurred in the participants life (Brzuzy, Ault et al. 1997; Tuckman 1999; Davies and Dodd 2002).

An interview can facilitate the path of discovery for a researcher (Fendrich, Wislar et al. 1996). Interviews are a process where the researcher questions the participants for their perspectives and views of a particular experience (Ivey and Ivey 1999; deMarrais and Tisdale 2002). They seek to extract interpretations of phenomenon from the participant's responses (Warren 2001). A possible consequence of this is that an interview may become a process of legitimising the information held by the participant in a way that the participant gains a greater understanding of their experiences being questioned (Bornat 1993; Walmsley 1993).

Despite these positives, there are some negatives attached to interviewing. For example, undertaking interviewing can be labour intensive and time consuming (Goodman 2001). Some participants may see the interview as an opportunity to tell a story that is not relevant to the research question (Dingwall 1997). Alternately, some participants may attempt to show themselves in a better light and mislead the researcher with their answers to the questions by saying one thing and behaving differently (Bailey 1994; Tuckman 1999).

While interviews were appropriate for this study, there were a number of different interview processes to be considered (Fontana and Frey 2000). Both the positives and the negatives needed to be considered in determining the most appropriate interview process. An interview can range from a highly structure questionnaire to an unstructured open-ended general conversation (Cohen, Manion et al. 2000; Fontana and Frey 2000; Wiersma 2000; Goodman 2001; Kane and Brun 2001; Wengraf 2001). Importantly each type of interview can produce different data to the same general research question (De Leeuw, Mellenbergh et al. 1996). Therefore, the objective of the interview needed considered. Furthermore, the wording of the questions guides the answers and the interview questions needed to reflect the purpose of the research (Shuman and Presser 1996).

The research questions sought to gain an insight into the use of improvisation by business operators and managers. Therefore, the objective of the interview was to gather the richest set of data about improvisation within the time available (Cohen, Manion et al. 2000). Interviews range from highly structured using the same set of formal questions to every interviewee to highly unstructured where there are few, if any formal questions (Fontana and Frey 2000). Highly structured interviews tend to disallow the participants to tell their own story, while unstructured, open-ended general conversations tend to need unlimited time frames (Cohen, Manion et al. 2000). Consequently, a partially-structured interview framework of questions that reflected the research purpose was used as it allowed for the interview to focus on a single issue as seen by the participant within a guiding framework (Edwards 1995; Fendrich, Wislar et al. 1996; Shuman and Presser 1996; Fontana and Frey 2000; Kane and Brun 2001). An advantage of partially-structured interviews is that an interviewer can add or modify a question when it is appropriate (Gay and Airasian 2000). As this is a search for

meaning and understanding of a phenomenon the questions needed to be framed using words that people normally use for day to day conversation (Walmsley 1993). This frame work is shown in Table 6.

Interview Framework

Semi-structured Interview Framework		
Research Questions	Interview Questions	
To what extent was the event that led to	Have you faced an incident that you have	
improvisational activity unanticipated in	had to respond to that you did not	
relation to the business plan of the	anticipate in your business plan?	
organisation?	Can you explain what the incident was?	
	Probe for deeper explanations.	
What resolution as sought by the	What impact did this event have on your	
participant in response to the unanticipated	businesses?	
event?	What resolution were you seeking?	
	Probe for deeper explanations	
What influences impacted on the	How did you know what to do?	
improvisational actions of the research	Have you done this before?	
subjects?	Have you seen this process before?	
	Did you get outside help?	
	Was time a factor?	
	Was cost a factor?	
	Was access to resources a factor?	
	Probe for deeper explanations.	
To what extent was the action taken by the	What did you do?	
participant improvisational?	How did you respond?	
	Did you respond immediately or did you	
	plan a response?	
	What resources did you use?	
	How did you use these resources?	
	Probe for deeper explanations.	
To what extent did the outcome, positive	Were you satisfied with the result?	
or negative, meet the expectations of the	Did it resolve the unanticipated event?	
business in addressing the unanticipated	What was the outcome, successful or	
event?	unsuccessful?	
	What impact did it have on the business?	
	What did you learn from this event?	
	Probe for deeper explanations.	

Table 6

This table shows that each research question has a number of related interview questions that were asked. Interviews are not an opportunity for the participant to say whatever they like, the interviewer needs to keep the interview on track (Dingwall 1997). Therefore, the primary aim of the framework was to keep the interview on track

so that it focused on extracting clear concrete descriptions of the participants experiences that were relevant to the research question (Scherpenzeel and Saris 1997; deMarrais and Tisdale 2002). However, each participant's answers to the individual questions asked may not have provided sufficient information for analysis. There was a need to probe in order to extend the answers and clarify meanings (Keats 2000; Goodman 2001; Kane and Brun 2001). This was because the participants were unlikely to give a full answer to each question (Putnam 1996). Furthermore, knowledge can come from extensive dialogue rather that simple interview questions by acting as a conduit for the extensive meanings the participants attached to their words (Arminio and Hultgren 2002). The interview questions do not include specific reference to improvisation, as it was a key aspect of this study to try and deduce the nature of improvisation from the participants' own experiences of responding to an unanticipated event.

As appropriate as interviewing is, one clear issue emerged, which is the impact the researcher and participant has on the process of data collection (Walmsley 1993; Bailey 1994; Denzin and :Lincoln 1994; Punch 1994; Dennis and Giangreco 1996; Brzuzy, Ault et al. 1997; Cohen, Manion et al. 2000). Face to face interviews between a researcher and a single participant are profoundly influenced by the relationship established (Ezzy 2001). This is because the researcher is the instrument of research (England 1994; Richardson 1994; Gay and Airasian 2000). Therefore, it was important that a framework of interviewing techniques was established (Byrne 2001). The framework addressed four steps; preparing for the interview, arranging a time and place for the interview, conducting the interview and post interview feedback to the participant.

Preparing for the interview

The setting or location of the interview can have a significant effect on the interview. The ideal location is one with the minimal possibility of disturbance and with the easiest access for the participant (Wilson 1996). This was determined between the researcher and the participant during the contact phase. However, the researcher needed to have available a number of locations to offer if the participant is unable to provide one.

It is important that the participants have an understanding of what the research is about as this can have a critical bearing on what the participants say in answering the questions (Walmsley 1993). However, in order to prevent the participant anticipating the interviewers questions and placing their own slant of the requirements on the research, only a basic outline of the research purpose and the research questions was given to the participants (Edwards 1995; Wengraf 2001). This allows the participants to understand what the research is about generally without them forming a detailed frame of what was expected from the participant.

Arranging a time and place for the interview

Considering that the interview is about the participant's business activities, they may have been, at first, uncertain or even suspicious (Brzuzy, Ault et al. 1997). It was a main concern of the researcher to alleviate this by creating an atmosphere of trust (Ruben 1992; Ralston and Thomason 1997; Taylor and Bogdan 1998). A participant who is relaxed and trusts the researcher is likely to be more open and honest (Fendrich, Wislar et al. 1996). Wilson (1996) suggests that the researcher needs to schmooze a little in order to put the participant at ease. This was done by informing and convincing the participant that they have something of value for the research (Putnam 1996; Ivey and Ivey 1999; Marshall and Rossman 1999).

A critical aspect of the research is that the participants had experienced an unanticipated event. Each participant was asked if they had faced an unanticipated event in the first six months of them operating their NEIS funded business, which they had resolved. Once they have admitted that they have faced an unanticipated event a time was made to interview the participants about the event.

The timing of the interviews was a factor that also needed some consideration. As the first six months is a difficult period for any new business, the time of the participation needed to be considered carefully. Therefore the researcher accommodated the participants as far as it is possible. At this time, the location of the interview was agreed on. Furthermore, the researcher needed to ensure at this time that the participant is willing to answer the questions in the interview (Hickman and Longman 1994). Those

that were not willing to participate further were thanked for their time and no further contact was made.

Conducting the interview

Interviewing is a social interaction and as such is subject to the same rules and courtesies as any other social interaction (Bailey 1994). The participant should be made as comfortable as possible and an element of trust needs to be established quickly (Bailey 1994; Ralston and Thomason 1997; Taylor and Bogdan 1998; Ivey and Ivey 1999; Fontana and Frey 2000). By using the participants name, looking at the participant and generally using warm behaviours they can be made to feel comfortable and gain confidence in the researcher (Eisner 1991; Ruben 1992; Ivey and Ivey 1999). It also involves beginning slowly with small talk and not jumping straight in with the interview questions (Johnson 2001; Kane and Brun 2001). Once the greetings and pleasantries are completed, it is essential that a researcher ensures the participants understand the purpose of the interview and that they are convinced of a researcher's interest in their story (Putnam 1996; Tuckman 1999; Kane and Brun 2001; Warren 2001). The relationship established at this stage will have a profound effect on the success interview (Keats 2000). Every effort was made by the researcher to engage the participants using these suggested techniques and as a result, none of the participants withdrew from the interview, nor were any interviews terminated early.

The question of confidentiality and anonymity needs to be addressed as early as possible (Wengraf 2001). The participants were reassured that their confidentiality and anonymity will be respected. It was also critical at this stage to reconfirm that the researcher had the participants' informed voluntary consent to be questioned (Sieber 1998; Taylor and Bogdan 1998; Warren 2001). Despite having the participants informed voluntary consent, they may still be reluctant to answer some questions (Adler and Adler 2001). One method of overcoming this was to establish a membership relationship, where the researcher due to previous experience with NEIS and as a small business operator, was able to demonstrate a close tie to the participant (Adler and Adler 2001). However, had the participant become reluctant to participate at any time the interview would have been terminated immediately.

The role of a researcher is one of a listener and observer and to be especially effective at interviewing the participant, the researcher needs to put themselves into a learning frame of mind (Nias 1993; Dennis and Giangreco 1996). This allows a researcher to keep an open mind about the interview and ensure they focus on letting the participant tell their story. This means that a researcher needs to be a good listener, not evaluate answers as they are given and show genuine interest in the participant's story (Wiersma 2000; Byrne 2001; Wengraf 2001). This was done by nodding at the right time, allowing silences to encourage the participant and probing for elaboration of answers. It was important not to ask too many questions too quickly as it may have given the impression that the participant was being interrogated and may have aggravated the participant (Ivey and Ivey 1999; Delyser 2001). Care was also taken to ensure the participant was not led by the questions towards a particular answer (Davis 2000).

The recording of data was by using a tape recorder and by making notes. While these are two different techniques to record data, by combining them a more in-depth insight to the participant's story was obtained. The use of a tape recorder prevented the researcher from missing any important snippets about the phenomenon being researched (Johnson 2001). The recording also captured the words and tone which are signals to the meanings the participants attach to their answers (Wittgenstein 1968; Forrester 1996). This was particularly important in the case of gender or cultural differences of the participants. A layout sheet had been developed that was used to record notes taken during the interview. The layout sheet helped record a number of different events as the interview progresses (Adler and Adler 1994; Taylor and Bogdan 1998). The notes allowed the researcher to record observations of behaviours and so develop more fully the context in which the answers are given (Forrester 1996; Ivey and Ivey 1999). Furthermore, people rarely tell of their views in order of occurrence or importance (Putnam 1996). Consequently, the notes allowed the development of questions to uncover those elements of the participant's story that is important to the research. The notes also ensure the interview stayed on track and occasionally verified the participant's answers (Wilson 1996; Ivey and Ivey 1999).

Exiting and post interview

Unlike many qualitative research projects, withdrawing from the field in this study was relatively easy as the relationship has been very short (Taylor 1999). Closing the

interview needs to be conducted in a way that does not leave the participant feeling stranded but is left feeling as though they have participated in something worthwhile (Keats 2000). One way of doing this was to explain how the information collected would be used in the research and offer the participant an opportunity to ask questions about the research (Edwards 1995; Marshall and Rossman 1999). Although it was unlikely, should the participant wish to hear the interview an offer of a copy of the recording and a transcript was made to the participants (Keats 2000). As mentioned earlier, interviews are subject to the same rules and courtesies as any social interaction and therefore, the participant was thanked appropriately (Ivey and Ivey 1999; Keats 2000).

It is important to maintain a positive relationship with the participant after the interview has concluded (Taylor 1999). This would allow the researcher to clarify any issues that arise from the analysis of the data by contacting the participants at a later date. This was done by posting a simple thank-you note soon after the interview, along with the repeat of an offer of a copy of the interview.

Data analysis approach

It is not only a researcher's role to extract data from the participants, but to also analyse it and present the data in a way that textually describes the participants experiences of the phenomenon being studied (deMarrais and Tisdale 2002). There is no perfect way of analysing or presenting the data (Wolcott 1994; Coffey and Atkinson 1996). Just as qualitative researchers have their own individual ways of gathering data, the analysis of the data collected is equally an individual process that reflects the philosophical stance of a researcher (Taylor and Bogdan 1998). Additionally, it is often a problem for qualitative researchers to determine exactly what to do with the data they collect (Wolcott 1994; Coffey and Atkinson 1996; Ezzy 2002). The method used to analyse and present the data is dependent on the purpose of the research (Wolcott 1994). That is, as discussed previously in this chapter, using the model as a guide, is to discover the use of improvisation based on past use of improvisation, to illuminate how improvisation is used as a process when businesses are faced with an unanticipated event and how this process approximates the model. The data analysis and presentation

therefore, needs to ensure it builds a picture of improvisation rather than test a theory about improvisation (Strauss and Corbin 1998).

The data, once collected, is not immediately ready for analysis and needs to be prepared (Huberman and Miles 1994). There are a number of activities that need to be performed before the data can be analysed. One critical factor relating to the data collected is the security of the data and this needs to be considered before analysis and presentation. Working copies of the interview tapes were made and the original tapes stored in a secured location, with only the working copies being used (Wengraf 2001). The same applied to the written notes, in that the originals will be photocopied and only the photocopied versions used during the analysis. Further preparation included the transcribing of the recorded interviews to enable analysis (Huberman and Miles 1994). It is important to note that transcribing the interviews are not just a technical process (Silverman 2000). Transcriptions are decontextualised conversations and they need to be recontextualised in order to extract the maximum benefit (Kvale 1996). This was done by reading the transcription in conjunction with listening to the recorded interview and making notes as the researchers ideas and thoughts were stimulated (Wengraf 2001). This was done during the first playback of the tapes in conjunction with the first reading of the transcripts (Silverman 2000; Wengraf 2001). The interviews were transcribed as soon after the interview as possible by an independent transcriber. This allowed for a review of the interview process to ensure that the interview was appropriate, and for the opportunity to reflect on the issues of the research (Ezzy 2002).

Data needs to be analysed in terms of the guiding research question and to ensure it matches the purpose of the study (Coffey and Atkinson 1996; Wengraf 2001). The first step in analysing the data was the identification of key themes and patterns (Coffey and Atkinson 1996). These key themes and patterns came from the model of improvisation as it was this model that directed the research (Miles and Huberman 1994). These key themes and patterns formed the basis of the data analysis by searching the data for connecting themes and patterns in relation to the research questions and then linking these themes to the model of improvisation (Wengraf 2001). The aim of this was to enable links to be drawn from the data to the model of improvisation and allow for the coding of the data (Miles and Huberman 1994; Coffey and Atkinson 1996).

The data collected was then be coded in relation to the key themes and patterns developed from the model (Miles and Huberman 1994; Coffey and Atkinson 1996; Creswell 1998; Strauss and Corbin 1998; Ryan and Bernard 2000). It is important to note that the coding of the data is not to attach simplistic and predetermined labels to the data, but to draw common themes between what the participants are saying and the model of improvisation (Miles and Huberman 1994; Coffey and Atkinson 1996). However, the coding of the data, while not analysis in itself it does have the function of organising the data in a way that enables and enhances the data analysis (Coffey and Atkinson 1996).

The coding was done by carefully reading the transcripts and looking for themes that bound the data to the various stages of the model (Miles and Huberman 1994; Coffey and Atkinson 1996; Creswell 1998; Ryan and Bernard 2000). The data relating to the supplementary research questions was found all through the interviews so careful examination of the entire interview was necessary (Wengraf 2001). This was done by travelling back from the interview question to the supplementary questions and then to the guiding question as the coding took place (Wengraf 2001).

Some data analysis occurred simultaneously with the collection of the data (Coffey and Atkinson 1996; Ezzy 2002). Part of the simultaneous collection and analysis is to check interpretations of what the participant is saying (Ezzy 2002). Furthermore, the field notes taken during the interviews were coded immediately after the interview in order to help guide each subsequent interview (Miles and Huberman 1994). This ensured that the research study stayed focused, while identifying any deviations from the model.

One skill that qualitative researchers need, is to be storytellers (Wolcott 1994). The presentation of the data needed to reflect the method of collection in that the participants have been asked to tell their stories about improvisation. However, words on their own are often meaningless and need to be linked so as to enable a rich description of the data (Miles and Huberman 1994). Therefore, the presentation of the data needed to ensure that it was descriptive, analytical, as well as interpretive. Furthermore it was important that the analysis did not surpass what the data actually shows (Thomas 1993).

Data presentation approach

Wolcott (1994) describes three possible methods of presenting the data collected. The first is a descriptive account that implies that the data is fact and that the facts will speak for themselves; the second method is an analytical method that systematically identifies key points and demonstrates the relationship between the key points; an interpretive method is the third method in that it follows the first two but extends out to include understanding and explanation.

The descriptive element has been used to present the data by focusing on key events that relate to the model (Miles and Huberman 1994; Wolcott 1994). This descriptive phase presented the participants words about improvisation. The analysis took on a number of different methods, it identified patterned regularities within the data and tabulated the regularities (Miles and Huberman 1994; Wolcott 1994). This data was presented in a descriptive format. In other words, the data has presented consolidated facts about the use of improvisation as it is linked to the model. It may be assumed that a fact has been substantiated if there is consensus from the participants about the fact (Yin 1998; Blaikie 2000; Neuman 2000). The interpretive process was to refer the data to the model and infer what this means in terms of the model and the data (Miles and Huberman 1994; Wolcott 1994). At this point the data was linked back to the literature on improvisation and the model by explaining what it means. This allows for the construction of an overall vision of the experience of improvisation as practised by the participants in relation to the model of improvisation (Creswell 1998).

The presentation of the data also includes the writing style. Qualitative research presents its interpretations primarily through text (Richardson 2000). The purpose here is to clearly present the data in a way that makes it understandable by the reader (Neuman 2000). There is certainly no real or correct way of presenting qualitative data (Richardson 2000). Consequently, as the researcher is directly involved with the participants in constructing their view of improvisation, a more personal style of writing was used (Neuman 2000). The data was written using clear and simple language, so as to engage a wide audience who may have an interest in improvisation (Ezzy 2002)

Ethics

All research involving the participation of human subject that is conducted through Swinburne University of Technology must obtain permission from the Human Research Ethics Committee. An application was lodged with the Committee on 8th May 2003 and received approval was granted on 16th June 2003.

The process used to protect the participants was outlined in the application. This process involved DEWR and selected providers of NEIS forwarding letters inviting participation in the study to NEIS participants on the researchers behalf. Potential participants were invited to return an expression of interest letter to the researcher. This process met with the privacy legislation by not disclosing to the researcher information about people contracted to participate in NEIS.

Once the letters expressing interest was received, the potential participants were contacted by the researcher and an appointment for an interview was arranged. At the this appointment the researcher explained to the participants an outline of the study. Prior to the interview commencing, the participants were briefed on the purpose of the study and were able to ask questions relating to the nature of the study prior to giving their consent to participate. The research process was explained to the participants and assurances were given and maintained that none of the information collected would be used other than for the purpose of this study and their personal details would remain confidential. The participants were informed that they were able to withdraw from the study at anytime without any penalty. They were instructed that they were free to answer any question, and were not obliged to answer any question they were not comfortable with. The personal details of the participants were kept separate from the interview notes and tape interviews. The tapes were coded using an alphanumeric system that did not provide any link to the personal details of the participant. In the data analysis the names and gender has been changed randomly to prevent recognition of the participants by name or gender. In some cases the exact nature of the business has also been adjusted to protect the identity of the participants.

Chapter Four: Looking at the Stories

Introduction

This study looked at the first six months of small businesses that were participating in the NEIS programme at the time of their interview. These businesses were expected to have a substantial well researched business plan prior to their acceptance onto the scheme. Despite this high level of planning it is inevitable that many face an event that has not been anticipated in their business plan (Orlikowski and Hofman 1997). The focus of this study was to investigate how these businesses reacted to unanticipated events during those first six months.

This chapter firstly reviews the model and then discusses the framework of the data presentation and discussion in relation to the model. In The next section the participants tell their stories in relation to the model. The Chapter focuses on the stories and applies them to the model of the process of improvisation

The literature review has shown that despite improvisation being an activity that is pervasive, there has been little research into the use of improvisation. The literature review also clearly identified a number of aspects of improvisation that have informed the development of a conceptual model of the process of improvisation, Figure 4, earlier in thesis is shown again below. This model was used as the basis on which to compare the actions and responses of the participants when they encountered an unanticipated event. The model itself represents the improvisation process in three distinct parts, Preimprovisation, Improvisation and Post-improvisation as discussed in Chapter 2.

92

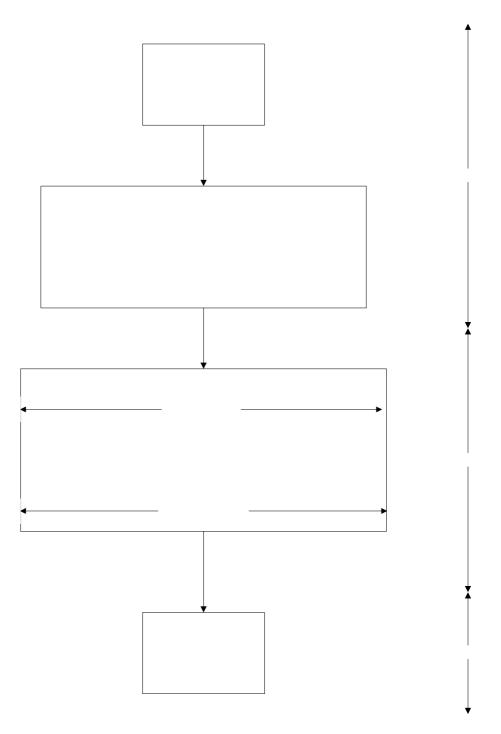


Figure 4: Model of Improvisation

To recap, the pre-improvisation stage of the model represents three aspects of the process. These are the unanticipated event, the outcome sought and the factors that influence the act of improvisation. The improvisation stage represents the improvisational response to the unanticipated event as defined in the literature review. This consists of one aspect, time convergence. Time convergence, is when there is little or no planning as the implementation of the solution is done soon after the solution has

been determined. The final stage represents the outcome of the activity which is determined as to whether the action has been successful or unsuccessful in terms of the extent to which the action resolved the unanticipated event.

As a result of the development of this model of improvisation a guiding research question arose. The question was "to what extent does the proposed model of improvisation reflect an improvisational response as a process when businesses are faced with an unanticipated event?" Using this guiding question, five supplementary research questions were developed as indicated in the methodology section. These five questions reflected different aspects of the model in that they sought to discover knowledge about the nature of the unanticipated event, outcomes sought, the influences that impact on the improvisational actions, to what extent the actions are improvisational and what was the outcome of the improvisational action. To obtain the answers to these questions a semi-structured interview was used.

Framework of the data presentation and discussion

The data has been presented using the model as a point of reference for the interpretation of the comments of the participants. The data presents the participants' stories about the unanticipated event and their responses, within the context of the three stages of the improvisation process in the model, Pre-improvisation, Improvisation and finally the Post-improvisation. The data has been coded to illustrate the different factors of each stage of the model.

The data in the Pre-improvisation section is coded into the three factors that constitute the Pre-improvisation section. These three factors are the unanticipated event, the outcome sought and the influences on the process. The resolution sought is coded according to whether the participant was seeking an outcome that would either add value (add value), improve aesthetic appearances (aesthetic) or avert a negative impact on their business (aversion), or a combination of these three. The influences are coded as either being internal influences or external influences. A brief description of the action that is undertaken by the participant is also described at this point.

The Improvisation section considers the data related to time convergence. This section is coded according to whether the action undertaken was either one of time convergence. Time convergence is the fusion of time between the conception of a resolution and the implementation of the resolution.

The Post-improvisation section presents the data on the outcome of the process. In this case the data is coded according to whether the outcome was successful or unsuccessful in terms of achieving the outcome sought in the pre-improvisational stage. In some cases the outcome is not clearly definable as successful, but is not considered unsuccessful by the participant as the outcome was unclear at the time of the interview. In these circumstances the outcome has been coded as unclear.

The data is presented in a descriptive manner in that as each participant tells their story it is linked back to elements of the model. Furthermore, most of the participants had more than one instance of improvisation, in their experience. Where several stories of improvisation are clearly linked to each other, all the stories are told. This reflects the method of collecting the data, where participants told their own experiences as they occurred within the context of the unanticipated event. This approach enabled the collection of a number of examples from some participants, and provided a richer data pool.

The Interviews

Interview: Alana (A003)

The participant in this interview had commenced NEIS two months prior to the interview, however, at the time of the interview she had not actually started operating the business. The participant was in a partnership with one other person who did not take part in the interview. Both are well educated and have a scientific background. They made a significant career change to start a service business aimed primarily at students. The unanticipated event occurred during a critical phase of writing the business plan.

Pre-improvisational

As mentioned, the NEIS participants are required to prepare a comprehensive business plan, this includes in-depth market research about their potential customers. The unanticipated event in this case was that Alana discovered that their target market customers would not participate in their survey. They needed to collect a certain number of completed surveys to enable them to complete this section of the business plan.

Alana's initial approach had been to introduce themselves as the owners of a business. Furthermore, they had dressed quite formally wearing business attire, expecting this to make a favourable impression on their subjects. However, this was not the case, rather than finding the subjects were willing to talk to them the opposite happened:

And then although they're only surveys, if you were the boss, you would find people run (unanticipated event: planned process not working).

The responses from their potential customers seem to be that Alana and her business partner had something to sell and in particular, something that they did not want to buy:

If you approach someone as being the owner of a business, straight away people look at you like you just want my money; you can sell me anything (unanticipated event: planned process not working).

Alana had anticipated that their market research would be quite straight forward. The discovery that people did not want to participate in their survey was a surprise to Alana and her partner and not something they had anticipated. After fifteen minutes without a single survey completed, Alana and her partner realised that their method of conducting the survey was not working:

I said to my partner, I don't know but I think this might be the wrong approach (unanticipated event: planned process not working).

Alana's partner agreed and they discussed what outcome they needed. The outcome was to collect sufficient accurate data about their clients that would allow Alana and her partner to make business planning decisions. That is, they needed to add value to their business by collecting survey-data:

We needed to do our survey (resolution: add value).

Alana felt they did not fit in with the people they were trying to survey:

I think we should come at this like we're students and I think we should just think 'student' for a while (influences: internal).

The influences on their action were primarily internal, using declarative and procedural knowledge. They decided to act and dress like students (**action**). This decision was made based on their past experiences as students. Both had been students for a number of years and recalled how they had been treated:

Most of it past experience, but also current experience... I mean we'd been students for how many years (influences: internal).

Alana and her partner were not getting the interviews they needed and they had to complete their business plan within a certain time frame (**influences: external**). The circumstances were that they found themselves dressed and acting in a formal manner when an informal approach would have been more effective. In the case of time NEIS clients need to complete their business plans for approval within a specified time frame. They decided to change their clothing to a more casual style (**action**) and change the approach to the students from a formal introduction to:

....very casual... like Hey! Hey! Stop... you can make jokes...(with the students) (action).

Improvisation

The decision to change the method of conducting their interviews was made quite quickly. There was little reflection and no detailed planning, the time gap between Alana and her partner realising that there was an difficulty in conducting their surveys to implementing their resolution was very short:

Pretty much as we were doing it...probably changed it within five seconds (time convergence: no planning).

In this case the activity was a medium level improvisation based on the concept of time convergence. There was virtually no planning as the resolution was implemented as they thought of it. Furthermore, Alana saw the action as improvisational:

So I guess that's where you have to improvise

Post Improvisation

The outcome, Alana's response to the unanticipated event, was successful in that Alana and her partner were able to complete their survey data collection. Having spent fifteen minutes without a questionnaire completed, they found their new approach worked well:

within the next hour I mean the whole survey was over ... you know that was a lot better (outcome: successful).

Alana's story follows the proposed model on improvisation in that Alana faced an unanticipated event, that required a resolution that would add value and be aesthetic. They were influenced by their past experiences, a lack of time and the circumstance they found themselves in. The action was improvisational in that time convergence occurred in that there was a degree of fusion between conceptualising the resolution and implementing it. Furthermore, in this case the outcome was considered successful by Alana.

There were some **unexpected outcomes**. Alana and her partner found that the students volunteered valuable information about themselves and their buying intentions. This was an unexpected bonus as it allowed them to start a data base on potential customers. Also, Alana learnt from this experience to trust her intuition a little more and that image is quite critical to their business.

Interview: Bill (A006)

Bill has a varied employment background, having worked in a number of different industries as diverse as mining and advertising. The business had started under NEIS four weeks prior to the interview. The business came about through Bill's past experiences in the printing industry and a desire to own a business. The business operates as a sole trader and is a multi-media business focusing on a specific service. It also includes IT training for which Bill has a contract to deliver training. It was at one of the training sessions that an unanticipated event occurred.

Pre-improvisational

Bill is always looking for a business opportunity that he can tap into and considers himself to be a trader. At one of the IT training sessions an unexpected and casual conversation with one of the clients, presented Bill with an unanticipated business opportunity. The client designs a product that is sold in Australia; however the cost of producing the product in Australia was beginning to price the client's products out of the market. This business opportunity was unanticipated in that Bill has never expected to find a business opportunity while training. Bill felt there was an opportunity here:

but I saw a lot of potential in her... I'm hoping that I can produce her products, considerably cheaper than what she's buying from the wholesalers here in Brisbane...In which case I have started myself another little business (unanticipated event: business opportunity).

This opportunity presented Bill with the chance to increase his cash flow and profits. The resolution that Bill sought was to add value to both his and the client's businesses by expanding his business and helping the client at the same time:

I could get her product at a cheaper price so C is saving some money and I am making some money too. If I can make just \$1 an item and 1000 items get done every week I've made \$1000...(resolution: add value).

Bill's decision to participate in this new business opportunity was influenced internally by using both declarative knowledge and procedural knowledge. Deciding that this was a good business opportunity that he needed to take advantage of, Bill stated that he had a feeling for the opportunity and so felt that the decision was intuitive:

Because I don't come from this type of background (influences: internal).

Bill, despite his wide range of working experiences, has never worked or had any connections with this industry nor did he anticipate that he would take on a business that was involved in this industry. His decision to get involved centred on his attitude that he felt he is:

...very much open to opportunities that come along... (influences: internal).

To take full advantage of this opportunity Bill was influenced by his past experiences. Bill had formed a strong relationship with an Asian student whilst they were studying in Australia. This relationship continued long after the person had left Australia and Bill was aware that this person had strong business connections with same industry as his client. This, Bill thought, made it easier for him to take advantage of the situation:

So I went to this person (in Asia) ... and they said yes (influences: internal; action).

The circumstance of having a contact who was able to assist, influenced his decision. By having access to this contact Bill was able to take advantage of the business opportunity that was presented to him (influences: external).

Improvisation

There is an element of time convergence between learning of the opportunity and deciding to act on it. Neither Bill, nor the client sat down and started to plan in a structured sense as Bill had with NEIS. Bill recognised this business opportunity within the first few minutes of the conversation and made a decision to pursue the idea soon afterwards:

Certainly in under 30 minutes to be more precise okay...we didn't plan really... (time convergence: no planning).

Post-improvisation

The actual outcome was unclear at the time of the interview. However, when contacted about three weeks later and again about seven weeks after the interview, Bill indicated that the business opportunity was still on track and they were awaiting some samples from Asia. He further felt that the chances of this being successful were stronger now than during the initial interview (**outcome: unclear**).

In this case the **unanticipated event** that Bill faced was a **business opportunity** that was significantly different to his original business. The **resolution** Bill sought was to expand his and the clients business. In this **action** he was **influenced** by his procedural and declarative knowledge in that he utilised his contacts to take advantage of the business opportunity and also because the opportunity felt right. This deviation from his business plan meets the structure of model to some degree in that the original business was carefully planned, whereas the business opportunity was not. There was a reactive response, the time between identifying the opportunity and acting on it was short, demonstrating **time convergence**. Bill had no knowledge or experience of the industry he was getting involved with, but drew on past business experiences and adapted that knowledge, this suggests the use of both declarative knowledge and procedural knowledge. The **outcome** is unclear at this time, but appears to be moving towards an outcome that would be successful for Bill.

Interview: Clare (A015)

Clare had just completed post-graduate studies when she found herself unemployed at a

late age. In response to this Clare set-up a small business through NEIS. Clare's

business evolved from her experiences with overseas students staying in her house. The

business provides specialised tourist orientated activities for overseas students that are

different from traditional activities such as the beach and theme parks. It is a

partnership of two principals, although only one of the partners is active in the business.

At the time of the interview their business had been operational for 4 months. They had

their first group of customers three weeks before the interview.

Pre-improvisation

Clare was concerned about getting a supplier who would be flexible reliable and able to

meet their changing demands and at a price that would enable Clare and her partner to

make a profit. Consequently they spent a substantial period researching and vetting

potential suppliers:

...we took about 3 months of research the first time to find the first supplier

Having found a supplier they began to advertise their services. The unanticipated event

was on the day they received their very first confirmed group booking, they discovered

that the main supplier had gone bankrupt:

I did not expect that and I did not plan for that... For the supplier to go bankrupt

(unanticipated event: planned process not working).

The loss of the supplier was a surprise for Clare and completely unexpected:

No, there was no contingency plan, well you do not expect something like that...our

business plan did not have anything about the supplier going bankrupt (unanticipated

event: planned process not working).

They felt the hard work they had put in to finding the supplier in the first place was enough:

I suppose with the research we did we thought we had found a good supplier (unanticipated event: planned process not working).

As a result of this unanticipated event, their costs would have risen substantially. No longer able to access wholesale prices, they would be forced to pay retail prices for the services and this would have caused them a significant loss. Having already agreed to the price with their clients they could not charge the customers a higher rate as a result of the supplier going bankrupt. Clare needed to find a resolution that would reduce their possible increased costs. The resolution they sought was to add value to their business by reducing their expenses and avert making a loss:

...we would have made a loss on our first tour group... we couldn't afford that, not from the first sale (resolution: add value and aversion).

Using the information they had collected during their research to find a supplier, they contacted one of the other supplier's they had spoken to previously and arranged for that supplier to provide them with the services they needed at a wholesale price. This was done using their knowledge and resources that they had about the supplier:

We just went to one of the other suppliers we had spoken to before (influences: internal and external; action).

This use of declarative knowledge enabled Clare to recall their past experience with the supplier and so make a decision to contact them. Another influence on their actions was the circumstance they found themselves in along with a lack of time:

We could not wait, we had clients coming and they would not wait (influences: external).

Improvisation

Faced with increased costs and not being able to delay the arrival of their clients Clare had to find an alternative supplier quickly. This led to a time convergence between coming up with a solution and acting on the solution:

We had to respond immediately...No; I have never had to find a supplier quickly (time convergence: no planning).

As soon as they became aware that their chosen supplier had gone bankrupt and was no longer able to provide services they looked at the list of other suppliers and picked one:

We did not have time to plan again...looked at our list, then rang one (time convergence: no planning; action).

Post-improvisation

The outcome was successful in that it met the resolution being sought. The alternative supplier was able to provide services in a way that enabled Clare to provide her customers with the services they expected. Although the profit was not what was expected it was a successful outcome for Clare:

It did solve it... we did fix the problem... The event cost us money, but we did keep the students and not lose that tour group. Yes, we made a small profit, not what we hoped (outcome: successful).

Clare's story of responding to an unanticipated event has all of the elements of the model of improvisation. The unanticipated event of a planned process not working caused them a degree of anxiety which contributed to them responding quickly. Consequently, it could also be argued that an implicit resolution could have been aversion in the form of not wanting to fail, as well as the resolution of adding value by not wanting to make a loss, especially with their first customers. Clare was influenced by both internal and external factors, such as their knowledge of what to do, the circumstances and resources. Time was also a clear factor leading to time convergence

in implementing the solution. They took three months to find their first supplier, and only a few hours to find the replacement supplier (**action**). That they did not lose money was a successful **outcome** for Clare.

Interview: Dave (A016)

Dave's business had been operational on NEIS for just over six months at the time of the interview. Dave's and some of his friends' experiences as students had prompted him to start a thesis/assignment editing and proof-reading service initially for students. The business structure is as a sole trader with excess work that Dave can not do, being contracted out to retained proof readers and editors. The business was erratic and seasonal with the bulk of business activity occurring towards the end of each semester.

Pre-improvisation

The seasonal nature of Dave's business meant that at certain times his income was considerably lower than at other times. What Dave had not anticipated was that his income would become so low that there was a threat of him being removed from NEIS:

I do need to look for an alternative source of revenue to keep things growing to stay on the NEIS programme (unanticipated event: planned process not working,).

There were two resolutions that Dave was looking for, one was to avert the threat of being removed from NEIS. The threat of being removed from NEIS was very real in that NEIS clients need to meet a minimum level of income to be considered profitable and worthy of ongoing support (**resolution: aversion**). This leads to the second resolution sought, the need to add value by increasing turnover:

... because I needed to make money (resolution: add value and aversion).

In this case Dave's business processes were not functioning as well as planned in that he was not meeting his financial targets as determined in his business plan. Dave's solution was to respond to a business opportunity that had been present for some time

but he had never taken advantage of this opportunity. Up until this point Dave's business had been to offer editing and proof-reading services and his business plan reflected this. However, he had been receiving enquiries since the start of the business for tutoring services:

I've probably had one in eight phone conversations, they ask, "Do you offer tutorial services".

Dave had previously refused tutoring services expecting to make sufficient income from the current services he offered. The decision to offer tutoring services was influenced partly by an intuitive recognition that this could be an alternative source of income:

I see people offering tutorial services...it complements my market (influences: internal).

The circumstances also influenced his decision to add tutoring services. He already had a number of clients that were using his proof-reading and editing services, some of whom had asked about tutorial services. The decision was also helped by the phone requests:

I think the phone calls definitely provided some sort of a push towards doing it (influences: external).

So that students were aware of this new service:

I've already set up the web page...I'll use a poster method to attract tutors and students (action).

Improvisation

The decision to take up this opportunity was spontaneous due to the circumstances Dave found himself in and therefore has an element of time convergence. Although he had prepared a detailed plan for his core business services, his approach to the tutoring services was over a much shorter time frame and much less structured:

Well I think it was a bit of an ad hoc thing...not much time at all...maybe a few minutes

(time convergence: no planning).

Post-improvisation

Although Dave has had a couple of tutoring jobs, they have not been sufficient to

resolve his problem. This is mainly because students need less tutoring towards the end

of semester when the interview took place. In a follow up interview six weeks later,

Dave was reluctant to speculate on whether this action had been successful:

I think it will pick up...no I haven't given up yet.

Dave did not seem confident that it would pick up later and that he would be able to

keep going on NEIS. When asked if he would consider his approach to his

unanticipated event a success he was reluctant to respond:

That's not easy to say...it possibly needs more time

He did agree that despite his resolution, turnover had not increased. In this respect and

at this point in time, the **outcome** could be considered unsuccessful.

Dave faced an event that was **unanticipated** in that his business was not meeting the

intended outcomes determined in his business plan. He needed to meet the outcomes

determined in his business plan to remain on NEIS and so sought to add value by

increasing his turnover (resolution). He was influenced partly by his intuition and

partly by the circumstances. As a consequence he took on a business opportunity that

had presented itself (action) and quickly without detailed planning included tutoring

into the range of services he offered to students (time convergence). The outcome has

been partially successful, in that he did increase his turnover, but not enough to resolve

his problem. Dave's action follows the model of improvisation described previously.

Interview: Eddy (A030)

Eddy is a highly skilled personal trainer, in that his background is originally as a professional sports person and he is qualified in nutrition. He feels both these give him a competitive edge over his rivals. He is also fluent in Japanese and has a strong understanding of Japanese culture, as well as speaking some Korean. As a result of this he has, to some degree, tailored his services towards the expatriate Japanese and Koreans who are looking for personal trainers. However he has not limited himself to this customer group. Generally, the customers for personal trainers are adults who are seeking motivation to keep fit or sports people seeking to enhance their fitness. This was the same target market for this business. At the time of the interview Eddy had been running his personal training services for 5 months and he operates as a sole trader.

Pre-improvisation

Eddy had undertaken a number of promotional initiatives, including letterbox drops of over 3,000 flyers and tried a party plan approach by linking with a nutrition supplements salesperson. He also arranged a number of seminars where he discussed the benefits of training and exercise. These initiatives were not generating sufficient income, and although this was a problem, Eddy was not at the stage of failing to meet NEIS standards. According to his business plan Eddy expected to be earning substantially more than he currently was:

the whole reason for the exercise is to make X amount of dollars and pay the bills and have a little bit left over sort of thing (unanticipated event: planned process not working).

At the same time a further event occurred where many gyms were beginning to ban freelance personal trainers from their gyms in order to protect their own trainers:

Some of them like don't want private trainers...the other trainers complain (unanticipated event: planned process not working).

This ban was having a negative effect on Eddy's income. The resolution Eddy needed to this unanticipated event was to add value by increasing his income. Eddy needed to find customers to increase his income:

I need more immediate cash flowing (resolution: add value).

As Eddy pondered how he would increase his customer numbers he was asked to provide remedial training for a 5 year old girl. At first Eddy was reluctant to take on the job as:

I've never trained anyone that young

However, based on his cash flow situation he decided to consider this request. The parents of the child met with Eddy at one of his seminars and asked him if he could help:

I said to them "but I am going to have to assess it". I said "Look I'll come around, do the complementary... and see if she is mature enough to do it" (action).

In this case he was influenced by his procedural knowledge of personal training in that he knew how to train a person. Eddy realised that personal training covers quite a broad range of things and may be limited only by the experience of the trainer and what the trainer is willing to do:

A lot of that comes from 20 years of martial arts training (influences: internal).

Eddy's decision to direct his efforts towards this new customer was also influenced by his declarative knowledge in that it he also knew what to do and that it was an intuitive decision:

But yeah, I got a good enough feel for it... I mean I'm very very intuitive person (influence: internal).

The circumstances of not having a sufficient income also influenced Eddy's decision to look at this new market opportunity. While Eddy was not at risk of losing NEIS support, he did not want to find himself in that position (**influences: external**).

Improvisation

There is evidence of time convergence between recognising the potential market opportunity and deciding to address it. Towards the end of the first meeting with the parents and their child he made a decision about this opportunity:

I hesitated for about 5 seconds, only because of the child's age...I didn't really plan I just did it (time convergence: no planning).

Post-improvisation

After the first training session with the child, Eddy felt that remedial exercise for younger people was an appropriate direction for his business to go in and he could target this new market. The outcome has brought some success, in that he has continued with the child's treatment, as well as some other clients:

I have two now...and the first one still (outcome: successful).

At the time of a follow up interview 3 weeks after the first interview, Eddy indicated that he had added another two children. However, this was still not a sufficient number to adequately improve his income and he still needs to increase his client base in order to meet his financial goals.

The elements of improvisation from the model are evident in this story. According to his business plan, Eddy had not anticipated his income to be so low (unanticipated event) nor had he expected a business opportunity providing remedial training to children to occur (unanticipated event). He needed to find a source of income quickly (resolution) and used his declarative and procedural knowledge to make a decision (influences). He was also influenced by his circumstances in that an unexpected business opportunity presented itself. In response to these influences Eddy took a

young child as a client (action). His decision was improvisational in that there was time convergence between making the decision and implementing a strategy to target this new customer group. The outcome was successful in that he increased his client base, but his income has not increased significantly to address the issue of poor cash flow.

Interview: Fred (A044)

Fred is a sole trader who started his business under NEIS ten months prior to the interview. He had worked in the temporary fencing industry previously and felt most temporary fencing was unattractive. Fred had designed a temporary crowd control fence that was attractive, lightweight and collapsed into a flat package. Fred started his business partly because he found him self unemployed and partly because he had had the idea for the crowd control fencing in his mind for some time. The business had been running for eight months at the time of the interview. The events Fred describes in this interview occurred approximately three months after he had started his business.

Pre-improvisation

In bringing his product to the market Fred experienced a number of unanticipated setbacks, and several were discussed during the interview. Two are closely linked in that the resolution sought was very similar and therefore they are discussed in this study. The first one related to an inability to find a business that could manufacture the fence palings. Fred had anticipated finding a manufacturer be a straight forward task, when in fact:

It's actually taken me a heck of a long time to find someone to manufacture it (unanticipated event: planned process not working).

Finding the manufacturer did not necessarily provide the answer he was looking for. There was only one manufacturer in Australia and the cost of the tooling to make the mould for the palings would have put a severe financial strain on the business as capital was running short by that time. Furthermore, Fred still did not have a prototype to use for testing purposes. Therefore, the resolution he sought was to add value to his

business by building a prototype to test, prior to production for sale. This would allow him to start testing the prototype so that he could start earning some money from sales of the finished product:

...and I really need to get this up and running to get some cash flow (resolution: add value).

The lack of a prototype was holding up production and sales and looked like preventing Fred from getting his business functioning as planned. Fred realised that he could use PVC wiring conduit as a substitute paling. PVC wiring conduit is readily available and the cost was considerably lower than the cost of having the paling manufactured exclusively for the fencing. Fred used his procedural knowledge in that he was influenced by something he had seen on the internet. He was also influenced by his declarative knowledge in that the use of PVC wiring conduit intuitive:

... I looked around to see what was available. And I thought well why not use that (influences: internal; action).

Fred's circumstances also determined the solution to some degree. Facing a lack of income, difficulty in finding a manufacturer along with a higher than expected cost to make the palings, Fred's decision was also influenced by the fact that:

...there's nothing really available (influences: external).

Improvisation

This resolution shows both time convergence. The time convergence comes from Fred making a decision to use the PVC wiring conduit within a day. He never undertook any research about its suitability; he purchased the conduit and began to construct the prototype.

Yeah, you wouldn't. It's a bit of an outside the square thing...oh I don't now...less than a day...once I decide I just used the conduit (time convergence).

Post-improvisation

Fred's goal was to move forward and get the fencing manufactured so that he could begin to earn an income. This was achieved in that it allowed Fred to get a prototype made ready for testing:

I think so, yeah...I've actually got the final panels (outcome: successful).

Pre-improvisation

Having solved the problem of the fence palings Fred needed to wind test the fences. This proved to be more difficult that he expected and led to the second unanticipated event that Fred discussed in the interview:

"I couldn't find anything with big enough fans or anything. I had a big fan, but that didn't work too well. An industrial size fan. I had to gauge the wind velocity (unanticipated event: planned process not working).

The resolution sought from this unanticipated event was to test a prototype and then get the finished product into the market (**resolution: add value**). Fred's solution to this was again remarkable, unusual and unexpected:

Actually tested it behind a Cessna aircraft ... And we had to test it behind an aircraft (action)

Circumstances of having to quickly get the prototype built were influential. Also the fact that Fred could not find a fan powerful enough to generate a strong enough wind to adequately test the fence influenced his decision. He felt that he:

Couldn't find any other way to do it (influence: external).

There is some indication that declarative knowledge helped Fred with his decision to use a Cessna aircraft. Fred seemed to think the decision was intuitive:

Don't know; don't ask me, I just come up with the idea (influences: internal).

<u>Improvisation</u>

Time convergence was present in that the time lapse between Fred realising he could use an aircraft and implementing the action was just a few hours. Fred first tried industrial fans, when these did not work he thought that the best thing would be an aircraft:

I didn't really think about...Actually tested it behind a Cessna aircraft ... we had to test it behind an aircraft... I went out to Archerfield and borrow a Cessna (time convergence).

Post-improvisation

The wind test was the final test that Fred had to do and as a result of this test the outcome of the improvisation was successful. Fred was able to manufacture a number of sample fences and get them into the market for promotional purposes:

I've got a bloke down in Melbourne who's going to be an Australian agent for it (outcome successful).

Both these unanticipated events demonstrate the use of improvisation according to the elements of the model. Both events were not expected by Fred in his business plan (unanticipated event). The resolution sought was to add value by getting the product built and tested and then into the market so that Fred could start generating an income. The action undertaken was the use of PVC wiring conduit for the palings and a Cessna aircraft to wind test the fence. The influences were both internal and external in that he used his declarative knowledge and the resources available. He also demonstrated time convergence. Finally, there was a successful outcome for Fred.

Interview: Greg (A045)

Greg's background is in Naturopathy, but found it difficult to obtain work. After being unemployed for a while, Greg set up a business making food products. The business had been operational for about nine months at the time of the interview. The business required access to a commercial kitchen in order to meet local council rules relating to food preparation. Greg negotiated an agreement with a local bowls club to use their kitchen during times that the kitchen was vacant. During the interview a number of unanticipated events were discussed. However, the interview focused on an event that related to a misunderstanding over the lease conditions. This event occurred during the second month of operation of Greg's business.

Pre-improvisational

As part of his lease agreement Greg was expected to occasionally provide meals to bowlers during competitions. He was under the distinct impression that this would only be at times when he was actually at the kitchen and then only rarely, perhaps once a month. What Greg had not anticipated was that as part of his lease, he would be required to provide meals on demand, which became a twice weekly occurrence. This had a very negative effect on his ability to produce his food products:

We sort of hadn't taken on that niche, when I made the business plan up. And we had to take it on, we're like, now this is taking up, not all of our time, but a fair bit, a bit more of our time than we wanted it too, than we expected it too (unanticipated event: planned process not working).

Furthermore, the kitchen equipment, while adequate for the production of his products, was not suitable for the production of meals for large numbers of people, nor was Greg a qualified or experience Chef. The first meal for sixty people was almost a failure:

It worked out, but it wasn't as nice as we wanted it to be. No one complained. I don't think anything went that bad.

There are two resolutions Greg was looking for, firstly to avert breaching his lease agreement and secondly to spend more time making his products. They had been told that they would rarely have to provide meals for the bowlers, but they found that it was happening twice a week and to keep the lease:

...we had to take it on, because it's part of our lease...(resolution: aversion).

Consequently, Greg realised that the time taken up with the cooking of meals along with the difficulties of actually cooking the meals was impacting on his core business and he needed to resolve this and so add value to his business by maintaining production of his core products:

We couldn't do the products because I'd be too busy ordering in and trying to do the catering side of things (resolution: add value).

To be able to spend more time on producing the food products Greg decided that he could not do the catering any more, but did not want to lose the increased income from the catering. He decided to find an alternative to himself doing the catering for the bowlers:

Interestingly enough we don't do anymore cooking, Woolies (Woolworth) does all our cooking for us. All we do is call them up (action).

The influences on this decision came from Greg's circumstances. As he found himself expected to provide more and more catering services, including private parties as part of his lease agreement (**influences: external**). The internal influence came from his declarative knowledge of the alternatives available:

I just remembered Woolies does platters, I had seen them in there advertised (influences: internal and external).

Improvisation

As soon as Greg recalled that Woolworths makes platters he decided that that would be the answer to his problem. He relied on his memory of the service provided by Woolworths, without contacting to confirm or even look at the types of platters they provided. There is evidence of time convergence in that the decision was made very quickly:

A minute...yes, no longer than a minute... I mean you don't plan these things do you? (time convergence: no planning).

Post-improvisation

Although this is not part of the business Greg wants to grow, it is having a degree of success. Not only are the bowlers happy with the food and Greg is not in breach of his lease, but also:

Like every week we're getting more and more jobs to do (outcome: successful).

The outcome has been successful in that Greg is no longer in danger of breaching his lease. Furthermore, this has given him an unanticipated income stream. However, this is not quite what Greg wants as he now has less time for the production of his own products due to the increasing demand for his catering services.

Greg's unanticipated event of having to provide meals for the bowling club was not part of his business plan. The resolution was aversion, in that he wanted to retain his lease, and value in that he wanted more time to focus on the production of his own products. By undertaking the action of purchasing platters from Woolworth he met his lease obligations. Circumstances and procedural knowledge influenced his decision and taking just a minute to make the decision shows time convergence. While the outcome was successful in that he has not breached his lease, it was not the outcome he had expected.

There were two **unexpected outcomes** for Greg. Firstly, it was that Greg learnt that he would need to be more circumspect when considering leases and other agreements to ensure that the conditions were much clearer. Secondly, he gained an additional income from an unexpected source.

Interview: Hugh (A046)

Hugh's business was directly linked to his past experiences in the air-conditioning

industry. He had held a managers position, but found himself unemployed and saw an

opportunity to start his own business. He has set up a business that provides quotes for

air-conditioning installers, which he runs from an office in his home. He had been

operating his business for eleven months as a sole trader at the time of the interview.

The unanticipated event occurred between five and six months after he had started the

business.

Pre-improvisation

Early in his business he faced an event that he had not anticipated in his business plan.

He had formed what he believed to be a strong relationship with a medium size business

that installed air-conditioners. Most of his work had come from this one business. He

discovered that he was losing out on quotes:

So what they were doing was getting my quotations, giving it to their local contractor

and saying can you do this job and we'll save ourselves 5%. Somebody else has done

all the hard work. 4 or 5 hours of contracting (unanticipated event: planned process

not working).

This event was affecting Hugh's cash flow. Hugh needed to maintain his level of

income and so the resolution he sought was to add value by reducing the number of

quotes he was losing and increase his turnover:

So I found I was starting to lose a few jobs that way...and cash flow was a problem

(resolution: add value).

The action Hugh took was to:

...virtually take out the nuts and bolts and just give them an overview of what they're

going to get and guarantee that it was going to work (action).

Winning only one in every four quotes meant that Hugh was working sixteen to twenty hours to get one job. These circumstances were partly influential in determining the action Hugh took to resolve the matter of losing quotes; the ratio of hours worked to quotes won was too high. He was also influenced by his declarative and procedural knowledge of the air-conditioning industry based on his past experiences:

I went back through all the years of experience. Having been quoting in the industry for years and years and knowing what makes people find out. (influences: internal).

<u>Improvisation</u>

The evidence of time convergence is less clear than some of the other examples of improvisation. Although Hugh did not discuss the issue with anyone nor did he plan he said it took him about a week before he actually stopped providing complete quotes and started to provide partial quotes with the "nuts and bolts" removed. However, he removed parts of the quotes progressively as he identified the parts that were not necessary. Furthermore, he did not adjust his business plan to reflect the change in his business procedures. The fact that he did not adjust his business plan suggests a degree of no planning.

Post-improvisation

The number of jobs Hugh was losing began to decline, so the outcome could be considered successful:

... I wasn't losing as many because of that fact that they were shopping the job (outcome: successful),

There is a less compelling case for Hugh's story to be considered as reflecting the model of improvisation. There was certainly an unanticipated event. He sought a **resolution** to add value by reducing the number of lost quotes and was **influenced** by his declarative and procedural knowledge. Hugh took **action** by removing much of the

information from his quotes. However, the evidence of **time convergence** is not as clear as with some of the other interviewees. This is not to say that this process was not improvisational, improvisation is time fusion between conception of the resolution and the implementation. In terms of actual passing time improvisation can occur over a period of time and it is possible that this is the case with this participant. The removal of the detail of the quotes resulted in a reduction of lost jobs (**outcome**) which can be considered successful.

Hugh was unsure if he had any **unexpected outcome** from this experience, but he did indicate that he needed to be more realistic about winning quotes.

Interview: Irene (A047)

Irene set up a business that drew on her experiences with computers. The business was operated as a sole trader and had been functioning for just over seven months at the time of the interview. Her original business idea based on the plan she prepared for NEIS was to provide computer tuition at the homes of her clients. The tuition covered a range of subjects primarily for mature aged first time computer users. Irene stated that while she has a business plan much of the delivery of her services is made up as she goes along:

My whole business is (based) on improvisation in a sense where it's never planned

Consequently, as Irene developed the business she experienced a number of unanticipated events. These events changed the way her core business operates:

It's changed; it is separate to my core business.

Three of the unanticipated events that affected Irene's core business are discussed in this study. These events occurred about five months after Irene had begun the business.

Pre-improvisation

Although the business plan indicated that she would follow set lesson plans, Irene does not have set lesson plans for her customers. This is because she discovered at the start of her business that the customers learning needs are always unclear until she arrives at their homes:

We never have, really, have a planned lesson... I never, I go to a customer, don't really know how much they know or how little they know. Every lesson is an unexpected event (unanticipated event: planned process not working),

The **resolution** that Irene was seeking was to add value by ensuring her customers learning needs are met. This is done by ensuring they are not repeating things they already know or learning things they do not want to or need to know. To achieve this Irene keeps track of what has taken place in each lesson:

I'll type up specifically for that customer what we have learned that day (resolution: add value; action).

Irene's decision to use this method of teaching is influenced by her intuition and as she gains more experience:

You can get a general idea of what you are going to do after a few questions (influences: internal).

The circumstances have also influenced her situation. It is very difficult to consider the learning needs of a customer over the phone:

You can't anticipate always...over the phone...what they want to learn (influences: external).

Improvisation

There is a high level of time convergence in Irene's teaching methods. Everything is decided at the client's house as the lessons progress:

You can't go in with a book and say this is what you are going to learn. You decide

when you get there each time...you make it up depending on what they want to learn

(time convergence: no planning).

Post improvisation

Irene achieved a successful outcome in that she has ongoing clients through repeat

business as well as developing a pool of resources for future use:

A structure, that's it, the structural side of the business is building, developing that

way...well the customers are staying (outcome: successful).

Pre-improvisation

As Irene interacted with her clients another unanticipated event occurred. Irene

discovered a business opportunity. Apart from teaching people about computers, Irene

is often asked for assistance with computer maintenance and upgrades:

It's becoming part of it just by people asking...update their computers...It was totally

unexpected (unanticipated event: business opportunity).

Although Irene saw this as a market to be avoided, she still took advantage of the

opportunities. Seeking a resolution to the requests, Irene saw that this opportunity

would add value to her business by:

Making a profit (resolution: add value).

The decision to develop this business opportunity was influenced by her intuition and

circumstances. Sitting in someone's house and being asked to help with a computer

problem was difficult to refuse:

It's an essential or a necessity...I have to be reactive to what the customer wants

(influences: internal and external, action).

Improvisation

There is evidence of time convergence in this case. Irene was with one of her first clients teaching them when asked if she could supply and install a scanner, she respond immediately:

I just decided to sell them a scanner... I said okay (time convergence: no planning).

Post-improvisation

The outcome of this was successful; Irene has upgraded and maintained a number of computers and as a consequence Irene was able to:

Increase my income. Yea, a small profit, there's not much in it (outcome: successful).

Pre-improvisation

Although the business was successful, Irene was not happy with the current marketing results. Particularly in recognition of the wider business opportunities that were occurring. This includes opportunities such as computer maintenance and the sale and installation of hardware and software. She realised that she needed to promote her new services to a much wider target market and that the current brochures being used were not particularly effective. Irene had tried a letterbox drop of brochures as:

A bit of a test market to see what response I would get.

Irene was disappointed with the results as the response was:

Not as much as should have... (unanticipated event: planned process not working).

The cause of this was that Irene's brochures were very poorly designed and written. She had designed and written them herself, acknowledging that she did not have any training in this area. Irene had previously stated that her goal was to keep improving

her profits. As Irene did not get as many responses as hoped she felt this would affect

the viability of her businesses. The resolution sought by Irene was to add value by

maintaining the profit growth through increasing the number of customers. To achieve

this Irene needed to develop a better brochure.

Irene actually found a letter advertising a business based in North Queensland

(influences: external). The business provided a similar range of services, such as

tuition and maintenance. Irene decided to use this resource in a mail out to potential

customers after making some minor adjustments to suit her business specifically:

I stole someone else's idea (action).

The influences were both procedural and declarative in that Irene recognized the quality

of the brochure:

It was a good letter (influences: internal).

Improvisation

As the previous responses imply, Irene makes decisions quickly. There is evidence of

time convergence as Irene states she did not discuss the idea of using the letter with

anyone nor did she undertake any planning:

The next day I used it. I looked at it again and just decide it would be good for me to

use (time convergence: no planning).

Post-improvisation

The outcome for Irene was successful. Irene achieved her resolution of increasing the

number of clients:

I got some calls from the letter...I've increased my owner's equity, owner's drawings...

(outcome: successful).

At the start of the interview Irene indicated that she operates her business in an improvisational manner. This is demonstrated by the three events discussed previously. There are regular **unanticipated events** and Irene sought **resolutions** that tended to add value to her business. These resolutions were **influenced** by both internal and external factors, such as her declarative knowledge and the resources available. There is evidence of **time convergence** as Irene implemented **actions** to resolve the unanticipated event very quickly. The **outcomes** that Irene achieved were successful.

Interview: Jo (A048)

The business operated by Jo is an internet business that focused on selling movie merchandise. In particular, Jo focused on selling memorabilia relating to a specific movie. The business idea came from her interest in memorabilia from this particular movie and the difficulty Jo had in getting items relating to this very popular film. At the time of the interview Jo had been operating for six months and faced a major departure from her business plan.

Pre-improvisation

At the start of the business Jo had been successful in meeting the targets set down in her business plan. This had boosted Jo's confidence and she felt she was on track to develop a viable business. The unanticipated event she faced was that:

The market for one of my main products dried up completely (unanticipated event: planned process not working).

Jo saw a significant drop in sales over two to three weeks. The drop in sales affected her business viability and her cash flow suffered significantly. She needed to find a resolution that would add value by:

...increase my cash flow (resolution: add value).

Jo's response was to broaden the range of products considerably. She did this by:

...looking at, basically, anything that comes across my path...determine whether I could

possibly sell this as an item (action).

Jo was influenced by a variety of factors. Some factors were external based on her

circumstances such as not being able to pay her bills through lack of income others on

her declarative knowledge in that her decision making process was intuitive:

Which is pretty motivating when you've got bills to pay and you realise that what you

are producing is not going to pay those bills. I kinda feel that I am a born trader...it is

based on establishing a feeling (influences: external and internal).

<u>Improvisation</u>

There is clear evidence in the use of time convergence by Jo. As soon as Jo realised that

she needed to expand the range of products, she responded very quickly in

implementing the resolution and expand her range of products:

Yea pretty instantaneous (time convergence: no planning).

Post-improvisation

This was one of the interviews where at the time of the interview it was difficult to

determine how successful the participant had been. This is because the broader range of

products was only just being introduced at the time of the interview. Some had sold

well but at the time of the interview the participant was unable to state if the change had

been successful or not. Several attempts were made to contact the interviewee to

establish if this change had worked, but the interviewee was not contactable and time

ran out.

Interview: Kevin (A049)

Kevin had extensive experience as a cameraman and film editor. After finding himself unemployed he decided he could use his talents to develop a business. The business he started under NEIS was the production of training DVDs aimed at the corporate market. The DVDs were to train new and current employees of client companies in the company's procedures. Kevin's business plan was that he would make and get paid for the DVD. The DVD would then become the property of the company. Kevin had been operating for five months at the time of the interview. At the time of the interview Kevin had not made a sale, although, he needed only one sale to meet his financial target for the first six months.

Pre-improvisation

Kevin's story is a little complex in that as he tried to respond to an unanticipated event, a business opportunity occurred that was unanticipated. This business opportunity led to another unanticipated event. It is the last event that is discussed in Kevin's story.

Kevin was having difficulty getting corporate clients. They were interested in his product but never signed up. As a result of this lack of sales Kevin's NEIS provider had just warned him that he needed to meet his financial target soon or he risked losing his NEIS support because:

...well there hasn't been a revenue coming in at all (unanticipated event: planned process not working).

Kevin started to make a number of adjustments to his business. He looked into making "how to" DVDs such as wood working and cooking. Then a relative told him of a company looking to produce a training DVD for their customers on how to correctly install their product:

He said I just heard one of my suppliers wants to do a video because people keep installing his induction unit incorrectly (unanticipated event: business opportunity).

He decided to change tack and look at producing DVDs that were focused at customers, rather than employees. Kevin met with the company and they discussed how they may

make the DVD. Following this meeting, Kevin was convinced he would get a contract to produce the DVD. However, when he called the manager back a few days later he did not anticipate losing the contract:

I rang and the guy said actually, well some students were going to, have offered to do a video and, but they'd like 250 bucks for it (unanticipated event: planned process not working).

This was a price Kevin could not possibly meet and he was very annoyed that he had lost this client in this manner. The resolution he was looking for was to add value by finding a way to keep that client:

Well I have to do something...because you can't just lose them (resolution: add value).

Kevin was also trying to avoid losing NEIS assistance:

And he's actually quite ready to throw me off the NEIS programme...he's basically saying, you know you are looking down the barrel, you got to get the numbers up (resolution: aversion).

What Kevin decided to do was significantly different from his business plan. He decided to offer to:

...make the training DVD for free, but I own the product it gets sold alongside his product (action).

This way, Kevin hoped, he would retain his client and:

...then earn me a royalty or income stream... (resolution: add value).

There are several influences involved in the decision he made. When asked, Kevin said that the decision came to him intuitively and was probably based on his past experiences (**influences: internal**). He was also influenced by his circumstances and lack of time:

I need to increase my income stream soon, or I am off the NEIS (influences: external).

Improvisation

There is evidence of time convergence in that he did not undertake any planning and made the decision quite quickly:

I guess this is a bit of improvising...umm, about a day... (time convergence: no planning).

When pressed for more detail he stated:

Well I sort of did it as I went along...no I did not really think and plan (time convergence: no planning).

Post-improvisation

Unfortunately, this did not enable Kevin to retain this client. As a consequence, the **outcome** can be judged as unsuccessful. However, it did change the way he approached his business. The event made him rethink his approach to his business and diversify his products. This is because of an unexpected outcome:

So I guess that's where I've had to sort of learn to speak their language and think in terms of them and when they see it as being a, that was a bit unexpected that a video is just a cost, that's all it is (unexpected outcome).

With a background in video production, Kevin had anticipated that potential customers would have a similar view to video products as him. Discovering the competitive nature of business and that he could be seriously undercut in price were an **unanticipated events** as was the business opportunity to make a video for customers. Faced with the risk of losing NEIS support he sought a **resolution** that would increase his income. Kevin's resolution was **influenced** by his intuition and his circumstances

and lead to an **action** to retain this client. **Time convergence** is evidenced by how quickly he implemented his action and that he did not plan this. Although the **outcome** was unsuccessful in this instance the **unexpected outcome** has led to a more diverse range of services and a better understanding of his market.

Interview: Lee and Mary (A051)

Mary and Lee started an IT service after being unemployed for a short period. The idea for the business came from their own experiences of paying high prices for the same service. Part of their service includes a pick-up and delivery service, which excludes the need for customers to visit their business. Neither Lee nor Mary had operated their own business before joining NEIS. The business had been running for six months when interviewed for this study. They had set up the business to operate from their home. They had partially converted space under their house for a workshop and the dining room table was the office:

Lee was doing the refilling downstairs and the office was upstairs

Pre-improvisation

The unanticipated event that Mary and Lee faced is unusual in that their business was exceeding their financial targets and their business was progressing according to their business plan. However, they had some difficulties with their planned processes. They discovered that their home office and workshop arrangement was not working as well as the had expected:

And then of course we started to get a bit busier and it just wasn't satisfactory downstairs at all ... Every time Mary came down (to the workshop) she would cringe (unanticipated event: planned process not working).

This issue of unsatisfactory work space became serious when a customer wanted to visit their office. They tried to dissuade the customer, but to no avail. Both Lee and Mary

were concerned about the arrangement of their business premises and the perception their customers would have of them:

Plus people were coming here and it wasn't nice...It was horrible; you couldn't take anybody in there. ...it's an absolute tip (unanticipated event: planned process not working).

The resolution sought by Mary and Lee was an aesthetic one in that they primarily wanted to create a good impression on the customers that were now beginning to want to visit their business on site:

So the people who do come in and realise that we are a proper business, not just some loony... (resolution: aesthetic).

Mary went to see a client and discovered that they had a home business that they operated out of a hired site office. Mary was influenced by her declarative knowledge from comparing the clients site office to their downstairs' workshop:

I just thought gees this is a good idea (influences: internal).

They clients site office looked professional and Mary recognised that this was the solution to their issue of appearing to be professional business people. Mary returned home and told Lee about the site office and they decided that they would look at hiring a site office. The main influence was the circumstances that Lee and Mary found themselves in, in that their working arrangements were not satisfactory:

But it didn't work, we couldn't work under the house because it was so depressing and messy...we had to do something (influences: external).

The fact that they could easily rent a site office also influenced their actions (influences: external).

Improvisation

Mary did not waste any time discussing the option of hiring a site office with Lee. As soon as she returned home she said:

I've got this terrific idea. I've seen this site shed, Lee we're going to have look at them, get in the car (action)

There is clear evidence of time convergence in their action as Lee stated:

We were on to it that day... We decided there and then, sign and said we'll have it delivered (time convergence: no planning).

Within the space of a few hours, Mary and Lee had committed themselves to a significant increase in their expenses. This was not something that had been accounted for in their business plan.

Post-Improvisation

The outcome for Lee and Mary was successful in that their appearance became more professional and that they were much more comfortable in having clients visit:

And it looks a bit more professional (outcome: successful).

This has been supported by comments made by visiting clients:

A few people have commented and said, "Oh gee you're well set up" (outcome: successful).

Mary and Lee had an **unanticipated event** in that they did not expect to feel so uncomfortable in their home business. They felt they did not appear professional enough to visiting clients and therefore, sought an **aesthetic resolution**. They were **influenced** both internally and externally and sought to hire a site office (**action**). They did not refer to their business plan and took a very short time to hire a site office which demonstrates **time convergence**. Their **outcome** was successful in that they felt their clients recognised them as professional business operators.

There were other outcomes that were not expected. The most prominent unexpected outcome was that both Lee and Mary felt better about themselves in terms of operating the business. By having a site office they felt they were going to work and were less easily distracted by other activities around the home:

You're more enthusiastic so I think that made a big difference (unexpected outcome).

Interview: Nic (A052)

Nic has a similar business to Jo, an earlier participant in this study. Nic had set up an internet business, in conjunction with her partner, selling a variety of specialised products via EBay. They were often able to source their chosen products and have them available through EBay before they were readily available in the shops. The business had been operating for four months at the time of the interview. Both Nic and her partner had held management positions in the area of sales prior to becoming unemployed and then joining NEIS.

Pre-improvisation

The products that Nic and her partner were selling fitted into a narrow market. Their sales were slightly exceeding their target and they had managed to reduce their costs slightly, leading to slightly higher profits. The unanticipated event was a business opportunity following an unexpectedly high number of requests for accessories to their products:

... And people are constantly asking us "do you sell accessories". At that point in time we didn't (unanticipated event: business opportunity).

The partners saw these requests as an opportunity to further develop their business, the resolution they were looking for was to keep increasing sales and therefore profits because Nic stated:

I want to buy a big boat. (resolution: add value).

The partners recognising this was an opportunity were influenced both internally and externally. Their decision sell the accessories were, to some degree, intuitive:

I just knew they would sell and they did...Because I trust my gut I guess, I have enough faith in my ability to make the decision (influences: internal).

As Nic had also experienced something similar previously while working as a sales manager the influences were based on declarative knowledge:

I had done something similar with a couple of other products in the past and it had worked well (influences: internal).

Their resources also influenced their decision to expand their range of products:

I just said okay I've got some time and I've got some capital (influences: external).

The partners need to find a supplier that could provide them with the accessories at a competitive price. After a short search Nic managed to find a:

... Taiwanese supplier and their price was competitive (action).

Improvisation

Time convergence is shown by the fact that neither partners sought advice or planned to add the accessories to their range of products. They briefly discussed the opportunity between themselves, and then made their decision:

But that may have taken only half an hour (time convergence: no planning).

In fact Nic saw themselves as very opportunistic and quite willing to take quick decisions without much planning:

And look I'm a fly by the seat of your pants kind of person...if it looks right I will do it

Post-improvisation

While the partners ultimate aim was to own a big boat, it had to be achieved through increased sales and therefore profits. In this respect the partners were successful. Their sales had increased:

We are selling them by the bucket loads (outcome: successful).

As a result the partners were:

Absolutely delighted we've gone down that track (outcome: successful).

The factors that constitute the model of improvisation are evident in this interview. As a result of an **unanticipated event** Nic and her partner had a business opportunity. The **resolution sought** from this unanticipated event was to add value by increasing sales and therefore profits. Their decision and **action** was **influenced** both internally and externally. The fact that they responded very quickly without planning shows **time convergence**. Their **outcome** from this improvisation was successful.

There was also an **unexpected outcome** from this event. Nic and her partner realised that they could expand their product range significantly. As they sold the accessories they realised that their business was based on selling products that they could easily pack and post at low cost. Therefore, any product that they could pack and post potentially was a product they could sell. At a follow-up interview four weeks after the initial interview, the partners had began to test market a range products that were substantially different to their original product range so long as it was a:

... stuff it in an envelope product

They had changed from essentially a specialised online seller to an internet mail order business.

136

Interview: Oscar (A053)

Oscar had a business in the natural health and beauty field. The choice of this type of

business was due to Oscar's extensive training and qualifications in the natural health

and beauty industry. Prior to starting the business Oscar had been employed by a major

national company, but had been made redundant and decided to use his qualifications

and the redundancy pay out to set up his own business. The business operated from

home and had been running for eleven months at the time of the interview.

The business was functioning, but due to fierce competition from major national brands

was struggling to survive. The business was just meeting the financial targets through

the natural health side, but the beauty products were struggling. Oscar was losing

motivation because of the difficulty in keeping the business going:

But it's really hard to market the other, because your competing with Avon,

Nutrametics, things like that.

Just as Oscar was considering stopping the business an unanticipated event occurred

and part of Oscar's response to this event then lead to a second unanticipated event,

both of which are discussed here. Both events occurred about six months after Oscar

had started the business.

Pre-improvisation

In the first unanticipated event Oscar received a phone call from an acquaintance. The

acquaintance knew of Oscar's difficulties and had in the past offered advice. The

acquaintance suggested that Oscar look at developing a print brokering business. This

was unexpected:

...because I didn't know there was an opportunity for printing. It just came along

(unanticipated event: business opportunity).

137

Oscar was becoming disillusioned with his natural health and beauty business as he felt intimidated by his lack of product knowledge. Despite working very hard, Oscar was only just meeting financial targets. He felt that over time this may affect his viability. The resolution Oscar sought was to add value to his business. He stated that he had set up his business:

Mainly to earn money... but the business was ... a bit under the financial (resolution: add value).

Oscar was influenced partly by the circumstances he found himself in, running a business that was struggling and being given an opportunity to do something completely different. It seemed intuitively right to start a print broking business and Oscar decided to:

... give it a go... (influences: internal).

Oscar was also influenced by his procedural knowledge of:

Colours, I know about colour, I know about GSM, I know about computers (influences: internal).

His acquaintance put him in touch with some printers and

I just got going...because everyone needs business cards (action).

Oscar felt also that he had enough skills to do all of the graphic work required for the printing business.

Improvisation

The decision to set himself up as a print broker was taken quite quickly and shows signs of time convergence. During the phone call with his acquaintance about starting the print broking business he was invited to discuss the opportunity, but:

Basically I said yes, I went to see him, but I had already decided (time convergence: no planning).

Oscar went on to confirm that he undertook no planning at all to set up and run the print brokering business as he operated the business as:

... a trial and error thing (time convergence: no planning).

Post improvisation

The outcome of increasing revenue was achieved and in that context can be considered successful:

I mean I am getting a job a day (outcome: successful).

However, setting up the print brokering business produced some difficulties of its own.

Pre-improvisation

Although Oscar had started to get print jobs, He faced another unanticipated event. Based on Oscar's computer knowledge he felt he was competent to act as the graphic artist for his printing clients. Oscar was surprised to discover that the art work was getting rejected by both the printers and the customers:

I was getting phone calls from brokers at 10 o'clock at night saying the artwork's not good enough, the artworks not good enough. I'd get the card back and it would be nowhere near what the customer wanted (unanticipated event; planned process not working).

This was affecting the profitability of a new business that had showed a lot of promise during the first few weeks:

I was losing money (unanticipated event; planned process not working).

Influenced by the fact he was losing money, Oscar felt he needed to reconsider how he ran the businesses and look at changing his method of operation and sought a resolution that would add value by reducing the costs:

I thought this is just not worth my time and my energy. I'm better off being out doing the sales and getting in the business and giving the work to those who can do it (resolution: add value, action).

Oscar decided to give all of the artwork to a more experienced graphic artist. He was influenced by his past experiences of using and working with graphic artists:

I knew all about them, because I have used them a bit since I started the printing (influences: internal).

Improvisation

Time convergence is evidenced by how quickly Oscar made the decision to pass on the artwork to graphic artists. After receiving another late night call stating that the artwork was unsatisfactory, Oscar made a decision to outsource the graphic artwork:

...the next morning (time convergence: no planning).

Post improvisation

The outcome for Oscar was successful. His business operation is much smoother and he is able to concentrate on the activities he is best at:

I just go and see the people and they tell me what they want. I give it to my graphic artist, she sends it all away and I get it all delivered 3 days later. It's great (outcome: successful).

Oscar's experiences has all the elements of the model of improvisation. He faced two **unanticipated events**. That led Oscar to seek a **resolution** that would add value. His decisions and **actions** were **influenced** by both internal and external factors. **Time**

convergence is substantiated by the fact that they were made with little or no planning between the conception of the resolution and the implementation. Finally, there was a clear **outcome** for each of the events.

Interview: Paula (A058)

Paula has not operated her own business previously, but has a silent partner who is a very experienced business person. The business operates from home and has been running for ten months at the time of the interview. Paula has film and music background and had started a multi-media business that reflects her skills. This includes writing jingles, advertisements, short films and documentaries. The unanticipated event took place four months earlier.

Pre-improvisation

While Paula expected to earn income from jingles and advertisements, according to her business plan, her and her partner's main source of income was the production of a documentary. This documentary project was to be about Australians during the Second World War. The documentary was to focus on a broad range of events rather than any single event. An unanticipated event was an inability to raise sufficient capital to fund the production. Market research in the business plan indicated that raising the funding would not be difficult. However, Paula had not been able to resolve this directly:

We started out in the private sector, locally and the councils we got knocked back...very unexpected (unanticipated event: planned process not working).

This lack of funding was causing serious financial problems, as Paula had anticipated getting a reasonable sponsorship to make the documentary. This sponsorship was to be a major source of income for the business. Paula continued to research the documentary with income earned from other business activities. While interviewing a person about their wartime experiences she came across a story that was interesting. This story was to cause a change in direction for the documentary and help gain sponsorship. Paula

discovered that this particular story although well known in a European country was virtually unknown in Australia:

There are not many Australians that are aware of it...the crew members started volunteering a lot of information...saying: "you must have a look at it"...

 $(unanticipated\ event:\ business\ opportunity).$

The resolution Paula was looking for was to add value to the business by gaining a sponsorship to produce a documentary in that she was looking for:

The opportunities for more immediate financial rewards naturally to develop the business further (resolution: add value).

There was a further resolution Paula was looking for that was less explicit. The need to develop her profile as a serious participant in the film and music industry was also an issue:

So I think our profile up there in the entertainment industry is very very important (resolution: aesthetic).

The influences were partially external in that their financial circumstances were pressing Paula to make changes.

Getting little bits of money...never enough (**influences: external**).

The influences were also internal in that they were very intuitive:

We just hit gold when we started hearing about the story... That comfortable feeling you get you know when it's on or it's off. I think it's just that creative feeling you get. You know when something's on or when it's off (influences: internal).

Having discovered the story they decided to do:

...a documentary solely on the story (action).

Once they made the decision to make the documentary they approached the government of the European country for funding:

We had a private interview with him and he said "yes we'll give you some money". As well as ongoing support (action).

Improvisation

The decision to change direction and produce a different documentary exhibits time convergence. Paula did not even consult with her partner, deciding to change the focus of the documentary:

... As soon as I first heard the story about it from one of the crewmembers. Just straight away. I didn't even write a story board first (time convergence: no planning).

Post-improvisation

Having managed to raise sufficient money to get the project started, Paula felt that the outcome was:

Very successful...we can start (outcome: successful).

Paula's experiences present the factors that construct the model of improvisation. An unanticipated event occurred as a business opportunity. She sought to resolve this by obtaining sponsorship to add value. Her actions were influenced by both internal and external factors. Paula then sought funding from a connected party (action). The time taken to change direction was very short substantiating time convergence. The outcome was successful in that she managed to raise sufficient funding to get the project started.

Interview: Quinn (A059)

Quinn and his partner had set up a mechanical and restoration service business based at their home. The business had been operating on NEIS for just over seven months at the time of the interview. Quinn has an extensive background in mechanical service and his partner has a background in customer service. Neither of the partners had owned a business before, however, Quinn did have management experiences in running a workshop.

Pre-improvisation

They had expected to work from home; however they had discovered that the business was not viable without more exposure to their target clients. Their home is situated quite some distance from the centre of Brisbane where there target market is located. The fact that their customers would not travel so far to see them was unanticipated:

We basically thought that we were just going to be working from home. Just trying to get people to come out this way as well, is difficult (unanticipated event: planned process not working).

Although the business was meeting their targets, the resolution they sought was to add value and make the business more viable. To do this they need to relocate their business premises away from their home and closer to their potential customers:

Just basically I think we need more exposure, we need to be closer to the city as well because the business would grow, a lot of people close to the city... We'd have a lot more passing custom as well (resolution: add value).

They sat down and had a short discussion about their lack of exposure to potential clients. They were influenced by their circumstances:

So we need to go where those types of people are (influences: external).

They were also influenced by their intuition and their past experiences:

A good gut feeling about it, like I've had a gut feeling...It's just from everyday experiences (influences: internal).

Improvisation

Their discussion was only between themselves and was brief, they reached a decision in:

Oh about ten minutes (time convergence: no planning).

The next day they began to search for possible premises (action).

Post-improvisation

At the time of the interview they had not found suitable premises although they had been looking for about six weeks. At a follow up interview some five weeks after the initial interview they had still not located premises, although they were confident they would find something soon. In this case due to the time limitations of the study the outcome is unclear. However, some outcome is inevitable in that they will either find premises or they would be forced to close their business at the end of the NEIS support. This was because it would be too expensive and with far too few customers to continue working from home without the NEIS financial support.

Despite the **outcome** of this unanticipated event being unclear there are elements of improvisation present, according to the model. The participants were **influenced** by internal and external factors in seeking a **resolution** to the **unanticipated event** of discovering that their business was not that viable being run from home. **Time convergence** is demonstrated by the brief discussion they had prior to making their decision.

Interview: Robyn (A061)

Robyn wanted to start a business that would give her the degree of flexibility to enjoy

the lifestyle she and her partner had chosen. She was quite creative and decided to start

a manufacturing business making and selling clothing accessories. Robyn

manufactured the products at home and sold her accessories through a local market and

two local retail outlets. Robyn had been participating in NEIS for eight months at the

time of the interview and had setup the business as a sole trader. The unanticipated

event occurred five months after the start of her manufacturing business.

Pre-improvisation

From the start Robyn's business struggled. Although her market research indicated that

this business was likely to be successful, Robyn found it difficult to generate sufficient

sales. After a period of two months she diversified the range of products and broadened

the range of potential customers. However, the business continued to struggle against

expectations as Robyn was not enjoying her lifestyle or earning enough money:

I was spending so much time here on this table or that table, cutting out or designing

and it was crazy...the cash flow just wasn't happening (unanticipated event; planned

process not working).

There are two resolutions that Robyn sought from this unanticipated event. The first

was to add value by increasing her returns of her efforts:

I really need to get some cash flow happening (resolution: add value).

The second was aesthetic in that Robyn wanted to enjoy the lifestyle she had created for

herself. Money was not a major motivator:

I quickly realised that it wasn't really deeply satisfying for me to be buying and selling

(resolution: aesthetic).

146

Robyn felt she needed to be doing something that would earn her a living and satisfy her principles. From this aspect she was influenced by her external circumstances of not working in a business that provided more than just a profit:

It's my priority to find satisfaction in my life from everything that I do. So I think about who I am and what satisfies me and live my life accordingly to my principles and priorities (influences: external).

The other influences were very much internal in that the decision to change her business was intuitive:

It really made sense for me. I felt confident doing them. I just took to it like a fish to water. So, yeah, I guess I was following my nose to what felt right... Definitely. I've definitely relied on my intuition and a strong pull of, in my heart, to actualise this business. It just feels right to me (influences: internal).

Robyn had spent some time pursuing her interest in a personal service as a hobby. She decided that her hobby would be a better business for her to pursue (**action**) as her:

...heart was no longer in the original business

<u>Improvisation</u>

Robyn was vague about the amount of time it took her to decide to change her business direction, she felt:

It was sort of an organic process I think. It happened as I got more and more involved in the personal service

However, there is some indication of a lack of planning and therefore some time convergence:

The idea came up that I felt ready to start my own personal service... I don't have a business plan (time convergence no planning).

Post-improvisation

In terms of increasing Robyn's cash flow, at the time of the interview this was not being

achieved. Although, Robyn was earning an income it was similar to the income from

her manufacturing and sales of clothing accessories. However, given the circumstances

of Robyn starting a second new business, she was doing quite well financially and

expected to exceed her financial targets determined in the business plan for the original

business:

I'm just starting my business up and it's going well (outcome: successful).

In terms of the resolution to improve her personal satisfaction and fulfil her lifestyle

goals; the change had been very successful:

I'm happy with the decision I've made because I feel that this decision can be a lot more

satisfying. The decision to be involved in personal service is a lot more satisfying to me

because it uses my skills and challenges me (outcome: successful)

As Robyn's original business did not go according to her business plan, she experienced

an **unanticipated event**. This led her to seek a **resolution** to improve her satisfaction

levels and her income. She changed her business direction from manufacturing to a

personal service (action) and was influenced both by internal and external factors, that

is her intuition and circumstances. As there was no planning involved there is evidence

of **time convergence**. Robyn was successful in the **outcomes** she experienced.

Interview: Steve (A075)

Steve started a business based on his love of photography. He had also identified an

opportunity for a specialised digital photography service. Steve runs the business as a

sole trader and had been on NEIS for ten months at the time of the interview. He

operated the business from home. Steve had prepared a meticulous business plan and

had followed the plan precisely. He had researched the plan thoroughly and had well

148

developed promotional strategies. The events Steve describes occurred six months after he started the business.

Pre-improvisation

In this case there are two examples of resolving unanticipated events. The first unanticipated event that Steve faced was the discovery that his promotional plan was not working. As he resolved this a second unanticipated event occurred.

Steve had been advised to use a direct marketing approach, and call on his potential customers. He would then leave his brochures and wait for a call from the client, which often did not materialise. This was the first unanticipated events:

I tried the direct approach, with me it wasn't working. Which I just found didn't usually get passed on. It usually got put on the desk and then I didn't hear any more from them (unanticipated event: planned process not working).

As a result of using a direct approach he found his costs were mounting. The resolution that Steve sort was to add value to his business by gaining more sales and reducing his costs:

I spent a lot of money trying that out (resolution: add value).

Steve decided to go against the advice he had received and send out an email to a large number of his potential clients (**action**). Steve was influenced by procedural knowledge as well as declarative knowledge based on his past experiences of using software and his intuition:

Well I suppose the research is just my own experience I suppose...That's just an idea I had myself because I know that e-mails can reach a lot of people in a short amount of time and only cost 25 cents for the initial phone call and your time (influences: internal).

Furthermore, the increasing costs also influenced his decision as he was now able to directly reach a larger number of possible clients:

Whereas if I did that in my car I would spend a lot more money (influences: external).

Improvisation

Very little planning went into the decision, this shows some evidence of time convergence:

I thought it would work and just gave it a go... I just thought about it and did it (time convergence: no planning).

Post-improvisation

The outcome of this action was very successful for Steve. Up until this time he had very few responses. As a result of his emails he received a number of calls and therefore, the outcome can been seen as successful because:

I'm now on the official list for Remax as a supplier. Remax Australia. So I get phone calls from anywhere in Queensland really or even New South Wales (outcome: successful).

Pre-improvisation

This success led to a second unanticipated event. As a result of the response, a number of firms asked Steve for some samples to be sent via email. The firms were asking:

"Oh could you send me some samples down" (unanticipated event: planned process not working).

According to his business plan and on the advice of his NEIS mentor he had prepared and printed a number of brochures which he had been leaving after his calls or would post to the potential clients. The cost of this process was high and the resolution Steve

sought was to find a way of sending samples that would add value to his business by reducing his costs:

And I thought it was getting quite expensive to send examples all the time (resolution: add value).

Furthermore, he needed a resolution that was also aesthetic, in that he appeared professional:

So it looks professional, it's non-threatening. They can look at it when they want to (resolution: aesthetic).

Steve decided that the best way to present his samples would be to use a PowerPoint presentation which he then either emailed or burnt to a CD (**action**). He was influenced by his intuition as well as past experience:

Intuition again...I forget where I saw it now. But I saw somebody using a PowerPoint demonstration which I thought was good. After a while you just start to associate different things together (influences: internal).

<u>Improvisation</u>

It is difficult to ascertain how improvisational this action was in terms of time convergence as Steve said:

It's probably only a few days I suppose. (time convergence: no planning)

However, Steve stated that he did not plan this in the same meticulous way he did his business plan and therefore some **time convergence** can be considered to be present.

Post-improvisation

The outcome here was successful as the **outcome** for the first event. The first event saw Steve being made a preferred supplier for Remax in Queensland and New South Wales.

After the second event, he was made a preferred supplier for the whole of Australia. However, as he is located in Queensland he would be unable to take advantage of this situation.

Overall Steve's experiences demonstrate improvisation according to the model. He faced an **unanticipated event** and sought a **resolution** that would add value and make his business look more professional. He was **influenced** by his intuition and past experiences and took **action** by changing his promotional activities and material. He utilised **time convergence** in that he did not plan his resolutions and the **outcome** was successful.

Interview: Tess (A081)

The idea for Tess's business came from her hobby. She had made special flower arrangements for friends and family for a number of years. She was encouraged to start the business, when just after finishing her study as a florist she was unable to find a job with flexible hours as she had a young family. Tess had set up the business as a sole trader and was using a shed in her garden as a base. Tess made unique flower arrangements which were then sold through a number of retail outlets. At the time of the interview Tess had been operating for twelve months. The event described by Tess took place about eleven months before the interview.

Pre-improvisation

Tess's most popular flower arrangement was set in to small terracotta pots. These were also the most difficult arrangements to transport. This led to an unanticipated event. Tess had not expected to have such difficulty in transporting the pots. She had expected that given the number she would be able to pack them into her car boot quite tightly. However, this was not the case:

They kept falling down...They looked a mess (unanticipated event: planned process not working).

The fact that the pots were falling over was causing Tess to lose as much as 20% of her stock. This loss was occurring at the critical stage of her business when she was just establishing herself. It was also occurring at the critical time of just before delivery to the retail outlets, when the cost of the loss was at its' highest. Tess needed a resolution that would reduce her losses and so add value to her business:

I couldn't sell them, they looked crap...the shop owner was complaining because I didn't deliver her order (resolution: add value).

Tess tried several different packing methods using wood blocks and blankets, none of which worked efficiently. When tidying her garden she found some old wire fencing and noticed that the size of the holes was similar to the size of the pots:

I was in the garden and just tried one of the pots...I don't know where it's from; it was there (action).

She was influenced by her declarative and procedural knowledge:

It was the right size, it looked right...I told Darren to put it in the car and it was okay (influences: internal).

Tess's circumstances of experiencing high levels of stock losses also influenced her decision:

I had to fix it, I lost a few arrangements (influences: external).

Improvisation

Tess's actions indicates the use of time convergence. In the instance of time convergence the gap between finding the wire fencing and using it was very short:

No I didn't plan this, I pulled it out of the garden and told Darren to put the wire in the car boot. I knew it would work as soon as I pulled the fence out. (time convergence: no planning).

Post-improvisation

The use of the deer fencing led to a successful outcome for Tess:

The pots fit, they don't fall down in the car (outcome: successful).

Tess's experiences fit the model of improvisation quite well. She experienced an **unanticipated event**. She undertook an **action** that was **influenced** both internally and externally in order to find a **resolution**. This action contained elements of **time convergence**. The **outcome** of the action was successful in that it met the resolution of adding value by reducing stock losses.

Interview: Ewen (A087)

Ewen had opened a specialist retail shop selling a very limited range of exclusive items. He had a long interest in these items and had felt that although these items were generally available, they could be sold as a special item. Ewen opened a retail outlet where the customers enjoyed a unique experience in purchasing these items. Ewen had been operating his shop for twelve months at the time of the interview and had set up the business as a sole trader. The event discussed by Ewen took place three months after he had started on NEIS.

Pre-improvisational

Ewen had a number of unanticipated events during the first six months of his business operating. Most had a minor impact on his business. However, one unanticipated event did have a significant impact on the business. Due to the specialised nature of the products he sold and the unique surrounds, Ewen felt that he needed to package the items in a unique and particular way. Ewen had arranged for a printer to print and make the packaging. Ewen had not anticipated the high cost of the packaging:

154

I never expected it to be so expensive, the others, the cheaper ones were not attractive and I felt I could not use them...the cheaper packaging look that...it looked cheap (unanticipated event: planned process not working).

The increased costs were affecting Ewen's profitability in that costs were now higher than budgeted. This may have resulted in Ewen having to withdraw from NEIS as he would not have reached his financial targets. The resolution Ewen was looking for was to add value to the business by reducing his costs:

Sometimes the package cost more than the products...it was just too expensive (resolution; add value).

One day while shopping at a specialised paper shop, he saw they also sold labels that could be used in a standard colour printer and decided that these would be a better alternative than the expensive packaging he was using and decided to change his packaging to plain brown paper bags and use the labels he saw:

They were cheaper and I only need one label for the bags...I can use the same label for every bag, it looks better too (action).

This action was influenced by Ewen's intuition:

I needed the labels anyway... So it just seemed right (influences: internal).

He was also influenced by his circumstances of having higher costs than expected:

I have to try and reduce my costs (influences: external).

Improvisation

It is clear that Ewen used time convergence in implementing this resolution:

Well as soon as I saw them I decide this was the answer. As soon as I got back to my shop. Oh no more than a day to change over to the labels...I was quite low on the packaging (time convergence: no planning).

Post-improvisation

The outcome of this change to his packaging was successful. Ewen managed to reduce his packaging costs substantially:

The labels and the bags are cheaper than the packaging I wanted to use... they still look great...in fact I think they look better (outcome: successful)

Ewen has all of the elements of the model of improvisation. The high cost of the packaging was an **unanticipated event** and the **resolution** was to reduce the cost and so add value. He changed to plain brown paper bags and produced his own labels (**action**). Ewen was **influenced** both internally and externally and used **time convergence**. This resulted in a successful **outcome**.

In this Chapter the participants have told their stories. The stories illustrate a link between the participant's experiences and the proposed model of improvisation developed from the literature. All of the participants experienced aspects of the model when utilising improvisation as a business process to respond to events that affected their businesses to varying degrees. This chapter has considered the data on an individual basis in that it has applied the individual responses to the model. To provide a richer analysis of the data, the following chapter looks across data for common threads collectively and applies the model to the responses of the participants. In doing so the chapter considers the necessity for refining the model.

Chapter Five: Another Way of Looking at the Stories

Introduction

The literature argues that businesses can respond in one of three ways to an 'unanticipated event'; they can ignore the event, plan a resolution or they can improvise (Moorman and Miner 1998b; Baker, Miner et al. 2003). Some businesses ignore 'unanticipated events', others plan a resolution. This study has focused on the third possible response and that is a business can respond to an 'unanticipated event' by improvising.

This chapter reviews the participants' stories on improvisation collectively and draws together the common threads that emerged directly to the relevant sections of the model and presents some findings. It follows the original model in that it is presented in three sections, Pre-improvisation, Improvisation and Post-improvisation and in this Chapter the model is applied to the stories. The Pre-improvisation section looks at the 'unanticipated events' faced by the participants, what 'resolution' they sought and what 'influences' impacted on their actions. The next section, Improvisation, considers the improvisation part and reviews the use of 'time convergence' and identifies a third part of this section, that is 'action'. The final section, Post-improvisation, is concerned with the 'outcomes' of the action. The strengths and weaknesses of the model are reviewed as well as new information about the structure of the model of improvisation. This section closes with the presentation of a revised model (Figure 5) of improvisation based on the data collected, and analysed in this Chapter as well as the previous Chapter.

Pre-improvisation

The pre-improvisation section of the model determined that there are three parts to this section, 'unanticipated events', 'resolutions sought' and 'influences'. To address this three supplementary questions were developed. These questions were used to align the participants' activities against the model.

Unanticipated Events

It has been argued in the literature review that all businesses face 'unanticipated events' from time to time (Orlikowski and Hofman 1997; Bogner and Barr 2000). The 'unanticipated event' refers to an incident that has not been foreseen by the participant prior to it occurring. The causes of these events lie in the turbulent and unpredictable nature of the business environment today as defined in the literature review. The literature reviewed gives some general examples of the turbulent and unpredictable nature of business, rather than specific examples. For example, Sashittal and Jassawalla (2001) discuss one organisation's response to unanticipated customer reactions to their products in general terms.

It has been argued in the literature that improvisation is a process that allows a response to an unanticipated or anticipated event in some way. It has been further argued that an anticipated event would be planned for and therefore less likely to cause an improvisational reaction by the business operator. Therefore, 'unanticipated events' are more likely to be responded to using improvisation. This concept formed the first part of the pre-improvisational section of the model used in this study.

To confirm that the event being investigated was unanticipated a supplementary question was asked 'to what extent was the event that led to improvisation unanticipated in relation to the business plan of the participant?' This was to ensure that the event discussed was unanticipated.

It is clear that the participants all faced an 'unanticipated event' that affected their businesses to some degree. In most cases the participants were explicit in their responses. For example Paula stated that the inability to raise funding was 'very unexpected'. Others including Clare, Greg, Irene, Oscar and Ewen were also explicit in stating the event they faced was unanticipated. Others are less explicit in determining whether an event was unanticipated or not. However, it is clear that the event is not anticipated in that they are forced to implement a resolution that has not been considered in their business plan. An example of this is with Alana and her partner

when they dressed as professional business people and changed their clothing so as to appear as students when they realised that their dress was affecting their ability to conduct their market research. Bill found himself with a 'business opportunity' that was way outside of his business and in order to take advantage of this he changed his business activities.

The original model did not categorise specifically the 'unanticipated events' that the participants faced. This was something that emerged during the interviews with the participants. It has emerged from the data that the 'unanticipated events' in this case fall into two broad categories. These two categories are, a process that is not working as planned or an opportunity to further develop the business. A planned process that is not working is defined to some degree by the description of the event given by the participants. They have described the event as not what they expected when implementing their business plan. The 'business opportunity' has been defined by the participant as business situation that gives them a chance to participate in a potentially profitable business activity that is significantly different from their planned business.

In the case of the first category, bearing in mind that NEIS clients are required to undertake substantial test marketing, research and business planning, it is the most frequently cited cause of an 'unanticipated event'. Fourteen (Alana, Clare, Dave, Fred, Greg, Hugh, Jo, Kevin, Lee and Mary, Quinn, Robyn, Steve, Tess and Ewen) of the twenty-one participants stated that their 'unanticipated event' was the result of a preplanned business process not working as expected. This included activities such as promotional activities not providing the response anticipated, a supplier no longer able to provide anticipated services, decreased income levels due to seasonal effects, difficulty in finding products, unanticipated increase in demand, unanticipated decrease in demand, loss of customers, unsatisfactory working conditions, inability to provide a service, lack of funding, loss of stock, higher than anticipated costs.

The second, a 'business opportunity', occurs in this study less frequently. Only two of the participants reported their 'unanticipated event' as being a 'business opportunity'. Both Nic and Bill had an opportunity to expand their businesses through an unanticipated opportunity.

The last four (Eddy, Irene, Oscar and Paula) stated that their 'unanticipated events' were both 'planned processes not working' and a 'business opportunity' that emerged as they tried to resolve 'planned processes not working'. In this case they were facing an 'unanticipated event' relating to a process that was not working when a 'business opportunity' presented itself as a resolution. These opportunities included an unanticipated client group, printing and extending the range of products or services provided to their customers.

It should be noted that a number of the participants who reported their 'unanticipated event' was a 'planned process not working', also indicated that this then led to a change in business direction. That is to say, that a 'business opportunity' did not arise as an 'unanticipated event' but, the resolution to the 'unanticipated event' was to seek a new direction for their business. Robyn is an example of this, when she sought to change her business significantly as a resolution to an 'unanticipated event'. Robyn's planned process was not working and her resolution was to change her business substantially.

Findings from this study suggest that participants did face 'unanticipated events' and responded to the 'unanticipated events' at some stage, as has been argued in the Literature Review (Garavan and Deegan 1995; Moorman and Miner 1998b; Augier and Vendelo 1999; Lau, Doze et al. 1999; Pettigrew, Woodman et al. 2001). Whether the event is 'planned processes not working' or a 'business opportunity' does not necessarily affect this study outcome, but it identifies in more detail the process of improvisation in terms of more clearly defining the construction of improvisation. As a consequence of this discovery the new model has been adjusted to reflect the two categories of 'unanticipated events'.

Resolutions

The literature indicates that there are three basic categories of 'resolutions sought' in response to an 'unanticipated event'. These are either aesthetic improvements, adding value or preventing crisis (Crossan and Sorrenti 1997; Hatch 1997; Moorman and Miner 1998b). It is in the fields of music and theatre that 'aesthetic outcomes' are the most prominent. However, businesses can seek 'aesthetic outcomes' by presenting to their

customers a better impression of their business. An example of this in the literature is Benetton's reaction to a consumer boycott, where Benetton reacted to an 'unanticipated event' that affected the perception consumers had of the company (Mitroff and Anagnos 2001). 'Adding value' tends to imply financial 'outcomes' such as increasing profits or reducing costs. However, value can be added by either solving problems or taking advantage of opportunities (Von Hippel 1988; Barrett 1998; Moorman and Miner 1998b). It can also include improvements in customer service (Barrett 1998), or better use of software (Orlikowski 1996). In terms of resolving or preventing crisis, they are not necessarily life threatening. Although the literature gives several clear examples of the life threatening crises such as the fire at Mann Gulch (Weick 1993a), and the ship that lost its power (Hutchins 1991), there are crisis that businesses face that can have a profound effect on their survival. Businesses that do not respond to 'unanticipated events' can find themselves in difficulties (Crossan, Lane et al. 1996; Brown and Eisenhardt 1997; Barrett 1998; Davenport and Prusak 2000; Miles, Snow et al. 2000; Poolton and Ismail 2000; Augier, Shariq et al. 2001; Lewis, Palmade et al. 2002). Therefore, 'aversion' is a 'resolution' that could be sought by a business where the 'unanticipated event' threatens their survival as a business. Businesses rarely seek a single resolution and in responding to 'unanticipated events', many businesses would seek a combination of these resolutions (Miner, Moorman et al. 2001). This concept forms the second part of the pre-improvisational section of the model.

Having determined that an 'unanticipated event' has occurred, the participants were asked about the resolution they sought. The supplementary question asked was 'what resolution was sought by the participant in response to the unanticipated event?' The rationale for this question was to confirm that the participant did respond and to identify the 'resolution sought'.

While it was argued in the literature that most businesses would rarely seek a single resolution, in most cases in this study, a single resolution was sought. That single resolution was either to 'add value' to the business or for 'aesthetic' improvements. While some participants said that the 'resolution sought' was either to 'add value' and 'aesthetic' improvements or to 'add value' and 'aversion'. No participants indicated that 'aversion' was a single 'resolution sought'. No participants sought a resolution that

was for 'aesthetic' and 'aversion' reasons, or for all three resolutions, 'add value' 'aesthetic' and 'aversion'.

Twelve participants indicated the single resolution they sought was to 'add value'. The resolution to 'add value' covered a range of different interpretations. For example a number (Eddy, Fred, Hugh and Jo) indicated that the resolution they were seeking was to increase their cash flow, the 'unanticipated event' being a process that did not work as planned and so reduced their capacity to generate income. An equal number of participants (Bill, Irene, Nic and Oscar) interviewed responded that the resolution they were seeking was increased profits. In this case the 'unanticipated event' was a 'business opportunity', rather than a 'planned process not working'. Irene and Hugh, not only sought a financial resolution, they also sought a non-financial resolution that would 'add value'. Irene intended to improve customer satisfaction and Hugh wanted to reduce the number of quotes he was losing. Not all of the participants who sought a single resolution were seeking a resolution that added value through increased cash flow or profits. Two participants (Tess and Ewen) sought to 'add value' by reducing their costs. The remainder either sought to gather information that would help their business (Alana) or increase the number of customers (Quinn). This demonstrates a wide range of adding value resolutions as indicated by the literature.

Two participants sought to resolve their 'unanticipated event' for 'aesthetic' reasons. In both these cases the 'unanticipated event' was a 'planned process not working'. Lee and Mary found that their office set up may have caused clients to view them as unprofessional and so sought a resolution that would make their business look more professional. Robyn was deeply unsatisfied with her business efforts and was looking for greater level of personal satisfaction. Consequently, she sought a resolution that would give her the personal satisfaction she was seeking.

Paula and Steve both sought resolutions that would 'add value' and lead to 'aesthetic' improvements. In Paula's case, she needed to increase her cash flow through funding for her film and at the same time needed to retain her professional profile as a film maker, something she could not do without the funding. Paula's 'unanticipated events' were both a 'business opportunity' and a 'planned process not working'. From Steve's

'unanticipated event' of a 'planned process not working', he sought to reduce his advertising and promotional costs as well as present a professional appearance.

Four participants shared the same 'unanticipated event' of having a 'planned process not working' and consequently, sought two resolutions, one to 'add value' and the other to avert a crisis. Clare's 'unanticipated event' of a 'planned process not working' led her to seek a resolution that would 'add value' by reducing her costs and at the same time avert incurring a heavy financial loss that would have adversely affected her business. Dave was in the situation where he needed to 'add value' by making a profit from his business and at the same time avoid losing his NEIS support as non-profitable business. Greg found himself in a situation where he wanted to avoid breaching his lease and maintain his production volume of his own products. For Kevin, his resolution was to 'add value' by retaining customers and like Dave, avoid losing his NEIS support. Although none of these crisis are life threatening, they all reflect the profound negative outcome that they may have incurred had they not resolved their 'unanticipated event'.

The participants in this study have indicated that following an 'unanticipated event' some resolution was sought as previously determined in the literature review (Weick 1993a; Moorman and Miner 1998b). While most sought to 'add value', two sought an 'aesthetic' resolution. The balance of the participants aimed for either both value and 'aesthetic' or value and 'aversion'. Furthermore, some participants sought more than one resolution as suggested in the Literature Review (Barrett 1998). In each case in this study the 'resolution sought' has provided support for the model of improvisation. In this case the model remains the same as the original model.

Influences

The literature suggests that there are two fundamental factors that affect or influence the process of improvisation. One factor is the internal 'influences' such as 'declarative knowledge' and 'procedural knowledge' based on the memories of past experiences of the participants (Moorman and Miner 1998b). 'declarative knowledge' is knowledge on what to do, that is knowledge that determines what is the best course of action to take (Leach, Wall et al. 2003; Roberts and Ashton 2003; Taatgen and Lee 2003; Wilcox

King and Zeithaml 2003). The example in the literature is the Mann Gulch fire disaster, where the fire-fighter knew that if he set a fire he could lie down in the ashes and not get burnt, because a fire can not burn the same area twice (Weick 1993a). 'Procedural knowledge' is knowledge on how to perform a task (Huffman 1996; Leach, Wall et al. 2003; Roberts and Ashton 2003; Taatgen and Lee 2003; Wiklund and Shepherd 2003; Wilcox King and Zeithaml 2003). For example, it was the doctor's 'procedural knowledge' used in the emergency surgery described in the literature review that managed to save the airline passenger's life (Cheetham and Chivers 2000). That is the doctor knew how to utilise a range of diverse items to perform the surgery.

The literature argues strongly for the inclusion of intuition in the process of improvisation and intuition was mentioned several times by several of the participants. A number of articles state that intuition is dependent on past experiences and the ability to access them quickly (Mitchell and Beach 1990; Rosenblatt and Thickstun 1994; Senge 1994; Crossan and Sorrenti 1997; Prewitt 1998; Crossan, Lane et al. 1999). However, it has been argued that not all intuition leads to improvisation. Therefore, intuition is seen as part of 'declarative knowledge' rather than a factor on its' own.

The second factor is external 'influences' such as 'circumstances', 'time' and 'resources'. The 'circumstances' that influence the use of improvisation relate to the accepted view that businesses operate in an environment that is both turbulent and ever changing (Orlikowski 1996; Brown and Eisenhardt 1997; Barrett 1998; Grzeda 1999; Poolton and Ismail 2000; Porter 2000; Augier, Shariq et al. 2001; Lewis, Palmade et al. 2002; Jabnoun, Khalifah et al. 2003; McGee and Sawyerr 2003). Furthermore, this environment is not constant, but unpredictable and irregular (Garavan and Deegan 1995; Moorman and Miner 1998b; Augier and Vendelo 1999; Lau, Doze et al. 1999; Pettigrew, Woodman et al. 2001). This environment leads to the participants facing 'unanticipated events' that create specific 'circumstances' for the individual businesses. The influence of 'time' relates to the amount of 'time' the participant has in order to respond. That is how urgent is a response to the 'unanticipated event'. The influence of 'time' is further affected by the spontaneity of the participants in response to the 'unanticipated event' (Crossan and Sorrenti 1997; Hatch 1997). An example of this in the literature, is again, the fire-fighters' reaction to the fire. He responded immediately and spontaneously to the danger he found himself in. The influence of the 'resources'

available has been demonstrated clearly in the literature review. In particular the emergency surgery, where the doctor had access to a coat hanger and brandy, amongst other things, to perform life saving surgery on an airline passenger (Dyson 1995; Cheetham and Chivers 2000).

The literature demonstrated that improvisation is influenced by two factors, internal and external 'influences'. The model of improvisation developed from the literature shows that the process of improvisation is subjected to internal and external 'influences'. The supplementary question that arose from this part of the model was 'what influences impact on the improvisational actions of the research subjects?' The purpose of this question is to identify how the actions of the participants are influenced internally and externally. The interview questions asked of the participants were how they knew what to do and how did they respond to the 'unanticipated event'?

The most consistent internal influence was the use of 'declarative knowledge'. When describing the influence of 'declarative knowledge' a number of the participants stated past experiences influenced them in deciding what to do in response to their 'unanticipated events'. Alana, Bill, Clare, Eddy, Fred, Hugh, Irene, Jo, Kevin, Lee and Mary, Oscar, Tess and Ewen all stated that they drew on past experiences in determining what to do. Alana had only recently stopped being a student; she and her partner could recall what it was like to be a student and this influenced their decision to change from being dressed as business people to being dressed as a students. Bill's extensive experience in business influenced him in deciding what to do. Clare stated that her past experience in researching and identifying different suppliers assisted her in making her decisions about what to do in response to her loss of a supplier. Eddy's extensive understanding and knowledge of training influenced his decision to train young children. Fred had a past experience of standing behind small aircraft before they took off, hence his knowledge of the force of the wind that can be generated by a small aircraft. Hugh's past experience working on quotes helped him identify what needed to be done to resolve his 'unanticipated event'. Irene based the 'influences' to her response on what to do on her past experiences in teaching people. Jo was influenced by her trading experiences. Kevin was asked directly if he was influenced by his past experiences in determining what to do, to which he replied that he was. Lee and Mary's experiences of working under their house and how unprofessional that

appeared, influenced them in deciding what to do. It was Oscar's past experiences with graphic artists that influenced his actions to resolve the 'unanticipated event'. Tess's knowledge of the pot size and its relationship to the size of the square fencing enable her to make a decision on what to do to stop pots falling over in her car. Ewen's past creative experiences helped him decide on using the labels and plain bags to reduce his costs.

Bill, Eddy, Irene, Jo, Nic, Robyn, Oscar and Paula all specifically described their 'influences' as being intuitive. Bill described his intuition as his ability to feel for people. Eddy described himself as being very intuitive and that he had a good enough feeling about what to do in response to his 'unanticipated event'. Irene, when discussing the 'influences' in relation to computer training said that she got a feeling for what the customer needed. Jo's decisions on what to do were also influenced by intuition, in that she said it was based on establishing a feeling for what would sell. Nic described her internal 'influences' as being intuitive as well; saying that he knew the accessories would sell. Robyn emphatically stated that she relied on her intuition in determining want to do. Oscar stated that it was a trial and error process based on his intuition. Paula explained her intuition as being a comfortable feeling with her decision to change direction with her film.

Four other participants also implied that their internal 'influences' were intuitive. Fred, Lee and Mary, Quinn and Ewen, all made statements that imply they were influenced intuitively in their decision on what to do in order to resolve the 'unanticipated event' they faced. Fred stated that he had no idea how he knew what to do, but that he just came up with the idea. Lee and Mary said they just knew their solution to their 'unanticipated event' was a good idea. Quinn said he was influenced by his gut instincts in making his decision on what to do. Ewen said her decision on what to do just felt right.

Two participants were not very clear with their response when asked how they were influenced. Dave's response to being asked how he knew what to do was that he recognised the opportunity to resolve the problem. Greg, was vague as to how he knew what to do, he stated that he just remembered that Woolworth's sold ready made platters.

Although all the participants were asked, only five were able to explain how they knew what to do. That is, what 'procedural knowledge' they used in order to determine how to resolve the 'unanticipated event' they faced. Alana, Eddy, Irene, Oscar and Steve all indicated they knew how to resolve their 'unanticipated events'. The fact that Alana knew how to dress so that she and her partner would look like students influenced them on how to get students to talk to them. Eddy's 'procedural knowledge' comes form his years of training, in that he knows how to train people and therefore can train anyone including young children. Irene's knowledge of software enables her to understand how and what to teach. This influenced her decisions. Oscar's knowledge of colours and how printing layouts work come from his training as a graphic artist and this 'procedural knowledge' influenced his decisions. Steve's knowledge of how to use software effectively influenced his response to the 'unanticipated event'.

When asked about the external 'influences', the most consistent response was 'circumstances'. Seventeen of the participants describe their 'circumstances' as being influential in responding to the 'unanticipated event'. The circumstance each found themselves in was unique to that individual business, although most were linked to some financial issue. For example, the 'circumstances' that influenced Dave's response was the need to increase his cash flow to a level that would allow him to remain on NEIS. Dave was also receiving constant requests from his clients for his new service which also influenced his decision. Eddy's 'circumstances' were also to increase his cash flow to a more profitable level. Fred's 'circumstances' were that he found the high cost of manufacturing his palings forced him to seek an alternative product. Greg was faced with the prospect of losing his lease which would have closed his business. Hugh was losing work and as a consequence was working longer hours for less income, this circumstance influenced his decision to change the way he presented his quotes to his customers. Irene, like Eddy's 'circumstances', had a desire to increase her income. The change in market demand reduced Jo's income significantly and in these 'circumstances', Jo sought to change the types of products she sold. Kevin's 'circumstances' that influenced his decisions, were that he lost a customer to a much cheaper competitor. Oscar, like Eddy, found that his income was not sufficient and sought to increase it. Steve's 'circumstances' were that he needed to reduce his travel costs. Both Tess and Ewen's 'circumstances' that influenced their decisions were that

they need to reduce their costs too, Tess by reducing wastage and Ewen by reducing packaging costs.

Others found themselves in different 'circumstances' that were not financially related. Alana and her partner discovered that they were inappropriately dressed for the 'circumstances' they were in while conducting their survey. Apart from seeking to increase income, Irene also found herself faced with increasing demand for services that she did not provide. This demand created the 'circumstances' that influenced her response. Lee and Mary's difficult working conditions were the 'circumstances' that influenced their decision to hire a site office. The 'circumstances' that Oscar found himself in was a large number of complaints about the art work for his clients. These complaints influenced Oscar's actions in seeking a resolution. Paula's 'circumstances' were the potential loss of prestige and constant rejections for funding that 'influences' her responses. Quinn like Lee and Mary needed to change location, although for different reasons. The need to find premises that offered Quinn greater exposure were the 'circumstances' that influenced his resolution to his 'unanticipated event'. That Robyn was unhappy with her personal life meant that she sought a more personally fulfilling business. This circumstance that Robyn found herself in influenced her decision to change business direction.

Most of the participants indicated that 'resources' were also an influence. Alana and her partner were able to change into their casual clothing. Having the clothing available was a valuable resource that influenced their actions. The 'resources' available to Bill were his contacts in Asia. Without these contacts Bill would not have been able to take advantage of this 'business opportunity'. For Clare it was her list of potential suppliers that enabled her to respond to the 'unanticipated event' of losing her preferred supplier. Not only did Fred cite his 'circumstances' as influencing his decisions, he also stated 'resources' were an influence, in this case, the fact that Fred was able to utilise 'resources' that were readily available. Fred was able to easily access wiring conduit for palings and an aircraft for wind testing. Greg was able to utilise the 'resources' of Woolworth's Deli department. The fact that platters were readily available influenced Greg's action of purchasing them to meet his lease obligations of providing meals when requested. Irene also stated that 'resources' influenced her actions. In obtaining a letter that advertised another business, Irene used this to resolve her 'unanticipated event'.

That Lee and Mary were able to readily access a site office to replace their under the house workshop influenced their action. Nic stated that the resource of having sufficient capital enabled her to respond to the opportunity she faced. The access to this capital influenced her decisions. The software that was available to Steve influenced his actions. By utilising this software Steve was able to address the 'unanticipated event' and so achieve his resolution of improving his presentations and increasing sales. Tess found some old deer fencing that she was able to adapt into a frame to hold her flower arrangements. This resource clearly influenced her actions in resolving the 'unanticipated event' of losing her flower arrangements. Ewen took advantage of conveniently available labels and bags that maintained the high quality appearance of his products and reduced his costs.

Only Clare stated that the external influence on her actions was 'time'. Clare had a number of people arriving when she lost her supplier. Consequently, a lack of 'time' influenced her actions. Although Alana was not explicit, she did indicate that 'time' may also have been an external influence on her actions. She did state that she was falling behind in completing her business plan for NEIS. While Alana did not indicate this influenced her actions, it is possible that it may have. Others too alluded to the influence of 'time', by implying that their actions were spontaneous, but none were as specific as Clare.

In each story the participants stated that they were influenced significantly enough to determine their actions. The literature argues internal 'influences' such as declarative and 'procedural knowledge' play a substantial role in determining how the participant will respond to an 'unanticipated event'. It is by drawing on this past memory that that the participants could decide what to do and how to do it (Moorman and Miner 1998b). The literature also states that these external factors, 'circumstances', 'time' and 'resources' affect the response to an 'unanticipated event'. The influence of external factors were demonstrated very clearly in the stories of the participants. Although in most cases in this study only one 'unanticipated event' was considered, each person interviewed stated that they experienced several 'unanticipated events' during their first six months. Irene, Nic and Oscar, in particular, expressed that in their businesses they were constantly facing 'unanticipated events' in terms of customer requests or changes in market conditions. This demonstrates that the 'circumstances' of all participants

were to varying degrees turbulent and unpredictable and matches the literature view that most businesses face a turbulent and unpredictable environment. The influence of 'time' on the participants actions, according to the literature, affects their actions.

Although only one participant categorically reported being influenced by 'time', others appeared to be influenced by 'time' in that they made their decisions quickly and carried out their actions with a degree of spontaneity. This reflects the literatures views on the influence of 'time' on improvisation. According to the literature, 'resources' too play a role in influencing the actions of people facing 'unanticipated events'. Most of the participants in this study specifically expressed the view that 'resources' influenced their actions in response to the 'unanticipated event'. However, not all the participants required access to 'resources' in the same way. For example Robyn did not require any 'resources' to change the direction of her businesses from manufacturing to a personal service in the same way as say Fred or Tess.

The findings in this study suggest that the participants' decisions and actions are influenced by both internal and external factors as demonstrated in the literature. Furthermore, the participants recall of the factors that influenced their actions follows the original model of improvisation. However, the relationship of the 'influences' in the original model indicate that it is a step or process that occurs after a resolution has been decided. This was defined in the literature review as a weakness of the original model. What the data has shown is that the 'influences' actually do occur across all three sections. Consequently, the new model shows this change.

Improvisation

The model derived from the literature shows that improvisation occurs at different levels. These levels can been seen in the second section of the model. The second section of the model consists of 'time convergence'. This section of the study considers the data relating to 'time convergence'. The supplementary question were developed for both this factor. However, it became clear during the analysis of the data that there is a third part to this section. This third part consisted of some sort of activity undertaken by the participant as they resolved the 'unanticipated event'. That is to say

they implement some sort of action, that they do something. This was unanticipated in the literature and has been included in this section.

Action

In seeking a resolution to the 'unanticipated event', it is suggested that some sort of 'action' or activity is undertaken by the participants. In other words the participants did something when improvising a resolution to the 'unanticipated event' that they had faced. This 'action' or activity was not included in the original model, and represents a significant oversight. Essentially, there is an assumption of action in the literature which the author failed to state implicitly in the model. Consequently there was no supplementary research question regarding this concept. However, during the interview the participants were asked 'What did you do' as an interview question as part of the supplementary research question that sought to determine to what extent the 'action' was improvisational.

The data collected implies that every respondent undertook some sort of 'action' that deviated from their planned actions in order to implement the resolution they sought, regardless of the outcome. This 'action' varied according to the 'resolution sought' and 'circumstances' of the participant. Some of the 'actions' involved the manipulation of objects to provide a solution. Examples of this are Fred when he used an aircraft to wind test his fences and Tess who took deer fencing and built a rack to stand her flower arrangements in. Alana and her partner changed clothes, while Ewen used a set of readily available labels and bags, and so they all manipulated objects to achieve their resolutions. Lee and Mary moved location from under their house to an on-site office. Others simply started doing something different or stopped one 'action' and started another or increased the number of 'actions'. For example, Irene who accepted orders for computer equipment, Robyn, Bill and Oscar started developing a new businesses and Eddy began training children, rather than adults. Dave, Jo and Nic expanded their range of products, Jo and Nic on their EBay sites and Dave on his own web site. Hugh removed elements from his quotes and Quinn looked for better premises. Clare, Greg, Kevin, Paula and Steve all changed their business processes by stopping a process that

was not working and starting a different process that was intended to resolve their 'unanticipated event'.

The findings in this study imply that some 'action' took place when improvisation is used to resolve 'unanticipated events'. In other words, the participants do something. Although it is implicit in the literature, this had not been considered when constructing the model. Some understanding of the 'action' is critical in considering the role of 'influences' as well as determining if that 'action' was improvisational. It is the comparison of 'time convergence' against the 'action' undertaken that determines if the process is improvisational. As a consequence of this, the model of improvisation has to be amended to include the finding that all the participants undertook some sort of 'action'.

Time convergence

The literature defines improvisation as time convergence, that is a fusion between concept and implementation.. 'Time convergence' has been described in the literature as the gap between the conceptualisation of a response to an 'unanticipated event' and the implementation of actions to address the 'unanticipated event' (Moorman and Miner 1998a; Moorman and Miner 1998b; Miner, Moorman et al. 2001; Baker, Miner et al. 2003). The narrower the gap the higher, the degree of 'time convergence'. 'Time convergence' can be evidenced when time becomes a scarce resource and businesses need to respond to an 'unanticipated event' quickly in order to avert disaster and do so without forward planning (Crossan and Sorrenti 1997; Pearson and Clair 1998; Ciborra 1999; Bogner and Barr 2000). However, 'time convergence' is not limited to disasters or crises, but can reflect any incident where there is little or no planning between the conceptualisation of an action to address an 'unanticipated event' and the implementation of that action (Mallak 1998; Moorman and Miner 1998b; Dyba 2000). The literature also noted that 'time convergence' did not necessarily indicate improvisation. This is noted in the case where shortening time to undertake an action does not imply improvisation (Miner, Moorman et al. 2001). As a result of this, 'time convergence' is taken to mean when the participant responds to an 'unanticipated event' there is a significant convergence of time between conceptualisation of a response and

its implementation through action. That is in comparison to the amount of time and effort used by the participants to prepare their business plans there is little or no planning between the conceptualisation and implementation of the action used to address the 'unanticipated event'.

The model developed from the literature review shows that the second stage of the process of improvisation consisted of the concept, 'time convergence'. Consequently a supplementary question was developed for this section. The supplementary question was 'to what extent was the action taken by the participant improvisational'? This question allows the application of 'time convergence' against the participants stories in order to determine to what extent improvisation occurred.

As most of the literature addresses the concept of 'time convergence' as a indication of improvisation. There are two methods of ascertaining this, firstly by looking at the time lapse between conceptualisation of the resolution and its implementation. The second method is the level of formal structured planning that took place between the conceptualisation and implementation of the resolution.

In this study all except one participant reported that 'time convergence' based on the time lapse between conceptualisation and implementation occurred to varying degrees. Some of the participants stated that the time gap between conceptualisation and implementation was very short, a matter of seconds, others stated it took longer. Alana demonstrates this by stating that the time lapse between conceptualisation of the resolution and its implementation was about three seconds. Clare like Alana responded within seconds, as did Eddy, who took about five seconds, while Greg took slightly longer and stated he needed about a minute. Jo was instantaneous in responding and Lee and Mary decided on the spot to implement their resolution. Both Bill and Nic considered they took about thirty minutes between conceptualising the action and then implementing it. Oscar, Paula, Steve and Tess did not specify a time frame, but indicted that it was spontaneous. Quinn stated he took ten minutes. Others that were less spontaneous took longer. This included Fred, Irene, Kevin and Ewen who reported that it took a day between conceptualisation and implementation. Dave was less clear about the time he took, but his response clearly suggests that 'time convergence' did occur. Robyn described her time gap as an organic process that lasted a few days. She could

not be specific, as the decision to change evolved over a period of time. Hugh was the only person who took more than a few days. Hugh said that it was about a week between he realising he had a problem, deciding on the resolution and implementing the resolution. Time convergence can occur over a period of time, in some of the stories time convergence occurred over a period of time. Robyn took about a week to implement her changes, but it was as she described an organic process. As she conceptualised the resolutions she implemented them. Other, on the other hand experience much short periods of time between conceptualisation and implementation.

Considering the second method of ascertaining 'time convergence', that of planning, everyone in this study indicated that compared to the amount of planning undertaken at the start of their business, very little if any structured planning took place between the conceptualisation of the resolution and its implementation. None of the participants reported discussing it with their mentor or NEIS provider. Even Robyn and Hugh, who took at least a few days, did not undertake any formal planning. When asked if they intended to change or adjust their business plans to reflect the changes in the business processes or new business directions, all again indicated that they would not do so.

The literature has clearly described one aspect of improvisation as the time lapse between the conceptualisation of a response and its implementation. That is the narrower the gap between these two factors the more improvisational the activity. The literature also goes on to suggest that this narrowing of the time gap leads to limited or no formal structured planning between conceptualisation and implementation. Despite the fact that two participant responses were less than spontaneous, there is support in this study for the concept of time convergence as part of the process of improvisation. This reflects the original model quite accurately and in relation to this aspect the model has not been changed.

Post-improvisation

The final section of the model of improvisation shows that there is an outcome as a result of using improvisation to address an 'unanticipated event'. The model suggests that it is either a successful outcome or an unsuccessful outcome. This section of the

data analysis considers if the actions of the participants were successful or not. In order to establish if the actions were successful or unsuccessful, a supplementary question was asked. The question was 'to what extent does the outcome, positive or negative, meet the expectations of the business in addressing the unanticipated event?' The question enables the study to identify those actions that were successful and those that were not.

Outcomes

The literature indicates that every act of improvisation has an outcome. This outcome may either be successful or unsuccessful, as determined as to whether it resolves the 'unanticipated event'. The examples in the literature tend to relate to either crises such as the Mann Gulch fire (Weick 1993a) the emergency surgery (Dyson 1995; Cheetham and Chivers 2000), and the Apollo 13 incident (Augier, Shariq et al. 2001) or to the arts such as the successful retention of audiences in terms of jazz music and theatre (Jackson 1995; Crossan, Lane et al. 1996; Hatch 1997). It was further argued in the literature review that some 'outcomes' may be unintended (Miner, Moorman et al. 2001).

Not all the participants enjoyed successful 'outcomes', for two the outcome was unsuccessful and for three, the success of the outcome was unclear. The others all enjoyed varying degrees of success. Alana and her partner achieved their goal of completing their market research survey on time. Although Clare did not make the profit she and her partner had anticipated before the 'unanticipated event' their outcome was successful in that they did make some profit from the resolution. Eddy had achieved some success in enlarging his client base, although at the time of the interview he still needed to increase the number of clients in order to meet his targets. Fred was successful in that he managed to get his product into the market place, although it was later than originally anticipated. Greg managed to retain his lease, and unexpectedly expand his business as well. This was no doubt a successful outcome for Greg. Hugh measured his success with a reduction in the number of lost jobs. Irene's business growth demonstrates her successful outcome from her business activities. Lee and Mary felt much more comfortable with there new office and believed it had a positive effect on their business. Nic's business like Irene's, has expanded and increased

turnover and profitability. Both of these factors indicate a successful outcome for Nic and Irene. Oscar has seen his business grow successfully as a result of the resolution to his 'unanticipated event'. Paula was able to commence filming as a result of her change of direction. Robyn stated that not only is she enjoying a better income, but she has been successful in achieving a more satisfactory lifestyle. By getting on to the preferred supplier lists for one of Australia's largest Real Estate Agents, Steve has obtained a significant level of success in response to his 'unanticipated event'. Tess's success can be measured by the fact that she reported a substantial drop in the number of flower arrangements she was losing. Ewen was able to reduce her costs of packaging her products successfully.

The two unsuccessful participants were Dave and Kevin. Dave had to increase his turnover in order to remain on the NEIS. He was unable to increase his turnover to the level he had anticipated and consequently still faced the prospect of being removed from the scheme. Kevin's goal was to retain his potential customer by making the DVD in different way. Despite his efforts, Kevin was unable to retain his customer. In both these cases, the participants did not achieve the successful outcome they had anticipated.

The literature does not address the issue of 'outcomes' that may be unclear. In this study there were three participants who's 'outcomes' were still unclear some time after the interview had taken place. In the case of Jo, an outcome was critical as she needed to increase her income as a result of a collapse in her market. However, that her outcome was unclear was as a result of being unable to clarify the outcome. The process was still in place at the time of the interview and later it proved to be extremely difficult to follow up with Jo after the initial interview. With the other two, Bill and Quinn, the 'outcomes' seem to be less critical to their businesses overall. Both were operating at an acceptable level for NEIS, although once Quinn and his partner reached the end of the NEIS financial support they would need to increase their income to compensate the loss of the NEIS income. Bill was still pursing the 'business opportunity' and waiting for some samples to be sent to him. While Quinn was still looking for premises, he and his partner had been offered a partnership, but they were reluctant to take this as they wanted to retain their independence.

The literature also suggests that there are some unanticipated 'outcomes'. Miner et al (2001) suggest that improvisation leads to some learning experiences. In some cases the 'outcomes' sought may be successful, but are not always the 'outcomes' that were expected. At other times there are unsought 'outcomes' that affect the participants in either a positive or negative manner. In order to ascertain what the unanticipated 'outcomes' were, the participants were asked if they learnt anything from this experience.

Not all the participants reported unanticipated 'outcomes', or that they learnt anything from their experience. Alana gained two beneficial unanticipated 'outcomes' from her experience. The first was additional information that was not expected. This information was of value to Alana as it enabled her to build a better picture of her potential clients. The second outcome was that Alana felt that she should trust her intuition more, and should respond to 'unanticipated events' more spontaneously. Eddy felt that he learnt that his market was much broader than he thought, if he was willing to try different things. Greg found his turnover increasing from an unexpected source which was of benefit financially, but made it harder for him to concentrate on his own products. He also said that he learnt to be more circumspect about lease agreements. Hugh was not sure if he had any unanticipated 'outcomes' or if he learnt anything. He did say that he felt he needed to be more realistic about the difficulties of running a business and winning quotes. One of the unanticipated 'outcomes' for Irene was that she built up a bank of lessons plans that she was able to draw on as she met clients with similar needs to previous clients. Kevin felt that his business was an ongoing learning process, however from the 'unanticipated event' he discussed he did say that he had gained a better understanding of how the market operated. Lee and Mary had some significant beneficial 'outcomes'. One of the most profound was the change in both Lee and Mary's approach to their business. By installing the site office they now felt as if they were actually going to work, even though the site office was about twenty metres from their home. Lee and Mary stated that they became more positive and active in their business, and less distracted by events that were not related to their business such as housework. Nic's experience taught her a significant factor about her business. He realised that his business was not so much product focused, as delivery focused. That is he realised that he could sell any product that could be placed in an envelope, not just products that were related to each other. Steve, was not sure if he gained any

unanticipated beneficial 'outcomes' or if he learnt anything. He did say that he would be less trusting on other people's advice in the future.

Several others reported that they did not gain any unanticipated 'outcomes' nor did they learn anything. Clare, Dave, Fred, Oscar and Paula all felt that there were no additional 'outcomes', nor did they learn anything. The 'outcomes' for Bill, Jo and Quinn were unclear at the end of the study, so it is impossible to determine if they learnt anything or if they had any additional 'outcomes'.

The model revisited

The original model consists of three sections, pre-improvisation, improvisation and post improvisation. These three sections were used to determine 'to what extent does the model of improvisation reflect the use of improvisation as a process when businesses are faced with an unanticipated event?' The literature review identified a number of weaknesses with the original model.

The data indicates that to a significant degree all three sections of the model reflect the use of improvisation as a process when businesses are face with an 'unanticipated event'. However, the data also indicates that the original model needs to be refined. While all three sections are reflected they are not reflected in the same way as the original model. Furthermore, through data analysis, a number of aspects were identified, relating to improvisation that were either inadequately addressed or not addressed at all in the original model. The revised model (Figure 5) is now discussed.

Pre-improvisation

The first section consists of three factors; 'unanticipated event', 'resolution sought' and 'influences' as argued in the literature. This study has suggested that 'unanticipated events' as depicted in the model do occur. However, this study has discovered that 'unanticipated events' can better be represented in three broad groupings, as a 'business opportunity' or a 'planned process not working', or a combination of both. This is shown in the data as each participant discussed the 'unanticipated event' they faced.

Each participant stated that their 'unanticipated event' was either a 'planned process not working', or they were presented with a 'business opportunity', or it was a combination of both.

The original model suggested that resolution and 'influences' go together. This was a weakness in the original model and an aspect not previously identified in the literature review. It implied that the 'influences' only occur as part of the resolution being sought. This study has discovered that that is not necessarily the case. Resolutions are sought and they do consist of either 'aesthetic', value or 'aversion', or a combination of any of these factors and the data supports this. 'Influences' are, on the other hand, a separate function within the process of improvisation. It appears that 'influences' affect the process of improvisation far more broadly than the original model indicated. When the participants were asked about the 'influences' on their use of improvisation, the response covered not just the resolution they were seeking, but also covered the action they took and the outcome achieved. The data suggests that 'resolutions sought', action taken and 'outcomes' achieved are inextricably linked to the 'influences' throughout the use of improvisation. Therefore, the 'influences' not only have an impact on the 'resolution sought', but also on the action undertaken and the 'outcomes'.

The revised model now represents the pre-improvisation stage as consisting of two parts. The first part is an 'unanticipated event'. This 'unanticipated event' consists of either a 'business opportunity' or a process not working as planned, or a combination of both. The second factor is the 'resolution sought' in response to the 'unanticipated event'. This remains the same as the original model as consisting of either 'aesthetic', 'value' or 'aversion'. 'Influences' still consist of two factors; internal and external, but are part of all three sections; pre-improvisation, improvisation and post-improvisation.

Improvisation

The second section examines 'time convergence' as stated in the literature. The data from the study has proposed that these two factors are present in the act of improvisation and to that end remain as in the original model. However the data identified that some sort of action occurs as improvisation is used.

The literature argues that improvisation does not occur in a vacuum and that you need to improvise on something. Yet the original model has failed addressed this issue. All of the examples in the literature on improvisation discusses how the improvisers actually do something. Some sort of activity takes place. This too is reflected in the data. Every participant stated that in order to achieve some resolution they did something. The participants responded to the 'unanticipated events' by performing a task that they were not performing prior to the 'unanticipated event'. For example, Alana and her partner changed their clothing, Lee and Mary rented a site office, Tess made a frame for her flowers. This 'action' is a fundamental aspect of the overall concept of improvisation. According to the data this 'action' is improvisation. The 'action' can be classified as being 'time convergence'. 'Time convergence' is a descriptor for the act of improvisation. Different levels of improvisation occurred in this study; most of the participants had high levels of 'time convergence' others had lower levels, but every participant undertook some activity. The new model has been adjusted to reflect the activity factor.

Post-improvisation

The original model determined that there was one part to this section. This part was the outcome as a result of using improvisation. This part considered whether the outcome was successful or unsuccessful in addressing the 'unanticipated event'. While the data indicates that this is the case, the responses by the participants show that there is more to the 'outcomes' than simply being successful or unsuccessful. Consequently, the new model retains the concept of whether the 'outcomes' were successful or unsuccessful, and it also addresses the 'outcomes' discovered in this study.

Although Miner et al (2001) indicates that organisational learning is sometimes a byproduct of improvisation, rather than an intended outcome this was not adequately
addressed in the model. This is because the aim of the model was to focus on intended
'outcomes' linked to the resolution. However, as the data shows, seven of the
participants experienced additional 'outcomes' other than organisational learning. All
of these additional 'outcomes' enhanced the overall benefit of the use of improvisation.

The final section of the new model demonstrates these findings. 'Outcomes' are not only categorised as being either successful or unsuccessful, but also takes into consideration the unanticipated 'outcomes'. These changes to the new model of improvisation are included in Figure 5.

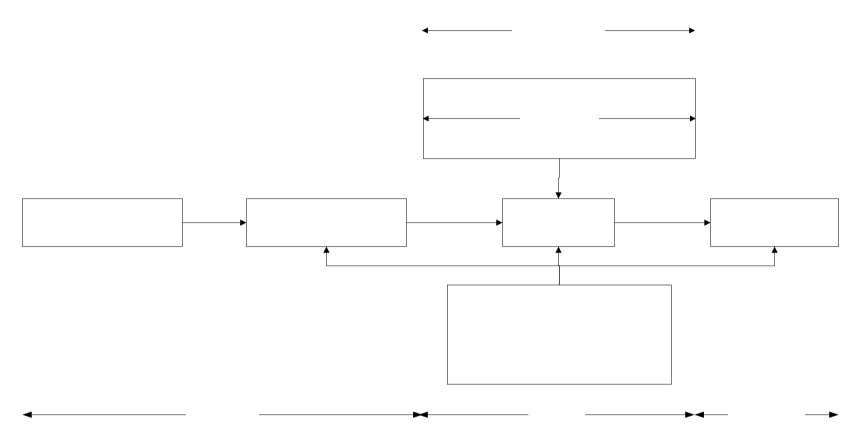


Figure 5: New Model of Improvisation

Bias

Qualitative research is an ideologically driven activity (Janesick 1994). Consequently, data collected will be influenced in some way by the researchers and participants frames of reference in how they see the world around them (Keats 2000). It has been suggested that the removal of bias from any study is virtually impossible despite the steps taken by the researcher. At best, it can be minimised only slightly as most of the sources of bias are not under the control of the researcher. However, bias can contribute to the strength of the research through the motivation of the researcher. In this case, the strong interest in the notion of improvisation is a motivating factor to discover more about the concept of improvisation. Consequently, it can be argued that any attempt to remove the bias may in fact be detrimental to the study (Davies and Dodd 2002). What is critical to this study, and any other study, is the concept of rigor. That is, that this study was dependent on the honesty, sincerity and integrity of the relationship between the researcher and the participants, and the researcher and the data collection and presentation (Byrne 2001; Johnson 2001; Davies and Dodd 2002). To this end this researcher has been honest, sincere and acted with integrity.

Chapter Six: And...So What?

The purpose of this chapter is to provide a summary of the study and to discuss the implications of the findings. A brief review of the structure and content of the study is provided. This is followed by a discussion of the findings of the study from the perspective of the experiences of the participants and then the various elements of improvisation is examined. The final part of this chapter considers some of the potential opportunities to study the concept and use of improvisation.

Review of the study

This study began by broadly considering the role of small business and the need for research to be conducted in relation to small business activities. It was identified that small business plays a significant role in the business economies of most countries. It was noted that small business processes needed further research in order to develop a greater understanding of how they function in today's turbulent environment. It was also noted that small businesses often face unanticipated events that require a response. The purpose of this study was to examine how a number of small businesses responded to unanticipated events, and in particular, the use of improvisation as a business process during this response.

The literature specifically identified a need for further research into the use of improvisation by small businesses. It was noted in the literature that improvisation was a complex process and therefore should be considered for more detailed study. Generally, the literature tended to provide a fragmented view of improvisation with different researchers arguing different views. However, one consistent views emerged; that of time convergence. A number of other factors also emerged from the literature review such as resolutions sought and outcomes achieved as well as influences on the process of improvisation. A model of the process of improvisation is developed taking into consideration the various aspects and concepts discussed in the literature on improvisation. This model was then used to investigate the use of improvisation among small businesses.

The model developed from the literature on improvisation formed the basis of this study. From this model the research question was developed. As the research question sought to consider the participants' experiences of improvisation, it was determined that the most suitable method for data collection would be a qualitative study. This allowed the participants to tell their stories within the framework of the model. In choosing this methodological approach a number of supplementary questions emerged. These formed the framework for the semi structured interviews used to obtain the data from the participants. The sample was determined by a number of factors such as the researcher's past experiences with NEIS clients, their likelihood of experiencing an improvisation response currently being involved in a small business start-up. A final consideration was the timeframe to undertake the study.

The data was collected by recording the interviews and then transcribing them. By listening to the tapes and reading the transcripts the data was coded according to elements of the model of improvisation. The data was then presented as a series of individual participants' stories with each story linked to the model of improvisation. Following this, the data was then analysed collectively against the model and a number of changes were made to the structure and elements of the model as a result of this analysis.

Limitations of the study

That every study is bound by certain considerations indicates that this thesis has its limitations. These limitations create the boundaries by which each study proceeds. This study was bound by similar considerations such as the methodology, ethical considerations, the biases of the participants and the researchers previous experiences, as well as the circumstances of the study.

In this study the model that was developed from the literature guided the interviews, the focus of the study being on the use of improvisation to resolve unanticipated events.

One of the specific limitations of this study was that most of the participants discussed several unanticipated events and of their responses to those events, only three discussed

one unanticipated event. To meet the requirements of this study, most of the interviews focused on a single event and response that seemed to reflect the model of improvisation. Consequently, responses to unanticipated events that did not reflect the use of improvisation have not been discussed in this study. While the consistency in all of the participants responses suggest that they used improvisation, the study does not conclude that they always use improvisation for every unanticipated event.

Another specific limitation was the concern shown by a number of participants about being identified. This is because some had deviated away from their original business plan to such a significant extent due to unplanned events, that they may have been in breach of their NEIS contractual obligations with DEWR. NEIS clients are expected to follow their business plan with minimal deviation, as any deviation could be construed as a new business and therefore not approved by DEWR. The participants may, as a result of this fear, have been less than truthful in describing their activities. Furthermore, efforts by the researcher to disguise the participants and their business activities may have had the effect of diluting the participants stories.

The sample size and its location was also a particular limitation. While the response rate was significant and the participation rate also high, the study was limited to the Gold Coast-Brisbane-Sunshine Coast region of Queensland, Australia. The question can be asked if these twenty interviews provided sufficient data to adequately support the model used in the study. That there was such high consistency between the participants stories suggests that this may be less of a limitation than otherwise anticipated for this particular study.

Finally, NEIS businesses are unique in the way they are set-up and operate during the first year. Starting with small business management training the NEIS clients received income support in the form of a payment equivalent to the unemployment benefit and are provided with mentoring support during their first year of operations. In itself this is not necessarily a limitation, but it does profoundly categorise the participants of this study into a narrow group within the small business community.

Collecting the data

Although the sample was chosen for their likelihood of having experienced improvisation and having just starting a business, accessing the sample was not a simple process. Due to the privacy laws (Privacy Act 1988), it would have been virtually impossible for the researcher to identify potential participants without some sort of assistance. In order to identify appropriate participants a number of organisations involved with NEIS were approached. Two of the organisations approached gave the impression they were not interested and did not provide any assistance. Those organisations that did assist, did so in one of two ways: either by sending out invitations directly to potential participants, or by allowing the researcher to make a twenty minute presentation directly to potential participants. Presentations were made to approximately 90 potential participants. The presentation explained the purpose of the study and how the participants could contribute. The participants were invited to take a form and return it directly to the researcher indicating if they wished to take part in the study. It is unknown exactly how many letters were sent out by the NEIS providers or DEWR, but based on the number of contract places during the time frame it was anticipated that less than three hundred people would have been informed about the study. In total one hundred and twenty one people returned the form indicating a willingness to participate in the study. This suggests a very high response rate. Part of the reason for a high response rate may have been due to the enthusiasm shown by those NEIS providers who assisted with contacting their clients as they all commented on the value that they anticipated gaining from the study.

As the agreements to participate were received they were logged and the person contacted to arrange an interview. Of the one hundred and twenty one people who were willing to participate thirty four were successfully contacted and a time was arranged for an interview. However, of those thirty four, five appointments were cancelled for various reasons, mostly a lack of time. Twenty nine interviews took place of which twenty interviews with twenty one participants were used in this study. Two of the interviews did not contain sufficient information to be included in the study. This is because in both cases the business was not fully operational. One interview was not useable due to a technical failure of the recording equipment. The participant was not available to be re-interviewed within the time available. Unfortunately, five of the

participants withdrew from participating, citing concerns about their participation after discussing their involvement with their NEIS provider. All five had the same NEIS provider and this was the only provider that had expressed reluctance in assisting with the study. In fact none of the clients of this particular provider took part in the study. The implications of this are unclear. One thing it does suggest is that a negative response to a study by an influential person or organisation can have an immense impact upon participation within that study. Certainly it means that a particular group did not contribute their experiences to this study, but given the ratio of those that took part against those that withdrew, it is unlikely that the data collected was affected in any great way. Furthermore, although the data was not used in the study, the stories they told were similar to the stories ultimately used.

Reviewing the data

While the literature reviewed for this study, acknowledged that businesses do operate in a turbulent and unstable climate, there was little indication in the literature to what extent. One of the first things to emerge from the study was the response to the interview question "Have you faced an incident that you have had to respond to, that you did not anticipate in your business plan?" Without exception the response was an emphatic "yes". All of the participants indicated that there were unanticipated events that they had to respond to, occurring on an almost daily basis, and for some, several times a day. So much so, that at times it was difficult to focus on the purpose of the study and not get swept away on the issues facing these businesses. This has been highlighted in the data to some degree, where participants have told more than one story of their responses to unanticipated events. It is clear that the concept of a turbulent and unstable business environment was re-enforced by the participants' responses. The study further suggests that this unstable environment is, at least for the participants, almost constant.

While the original model did not define what an unanticipated event might be, what has emanated from this study was that unanticipated events seem to consist of two broad categories. That is not to say that these two categories are necessarily the only types of unanticipated events that small businesses face. When coding the unanticipated events

faced by the participants, they tended to be either a planned process that was not working in the manner anticipated in the business plan, or a business opportunity that appeared that also had not been anticipated in the business plan. Many of the participants (18) experienced an unanticipated event that was coded as a planned process not working as expected. This supports the concept discussed in the literature review that you can not plan for every eventuality and suggests that a degree of flexibility is required by business operators when running their businesses. A further implication, particularly for new businesses is that while their business plan is essential, the operators need to be aware of potential deviations and the impact of those deviations. The original model assumed that unanticipated events did not fall into any specific category. A result of this is that the model had to be adjusted to take this discovery into consideration.

The resolutions sought by the participants to the unanticipated events they faced followed the model. That is, the participants were seeking either to improve appearances (aesthetic), reduce costs or increase income (add value), or avoid an unpleasant situation (aversion). The data from the study did not fundamentally change this part of the model. This tended to support the view discussed in the literature about the types of resolutions generally being sought by businesses when facing an unanticipated event.

The original model had resolution and influences together, as a single factor. However, what this study suggests is that influences play a more significant role. The original model suggested that influences occurred during the determination of the resolution being sought. This study implies that the factors that influence improvisation do so at all times during the process of improvising. While the factors that make up the influences remain unchanged from the original model (unanticipated event, resolution sought, influences, time convergence, resource usage and outcome), these factors did influence the choice of resolutions sought, the improvisation process and the outcomes obtained. This became apparent when the participants emphatically reported that some sort of action needed to take place in order for an improvisation to occur. If the participant determined a resolution to the unanticipated event, then it only became a resolution when the participant acted on the resolution. The act of doing something is therefore held to be a critical part of the improvisation process. Therefore, the

influences affected the improvisation process, from the conception of a resolution, to the action to put the solution into place and finally achieving the outcome. This has been reflected in the revised model, where the influences are shown to underpin the overall process.

The absence of an action component in the original model of improvisation, with hindsight, may seem an obvious and significant oversight. However, while the literature makes specific mention of actions, these are not necessarily classified in the literature as critical components of the improvisation process. It does become very apparent from the study that for improvisation to occur some activity or action must take place. Exactly what this action or activity is, becomes dependent on the resolution sought, the influences affecting the process and time convergence. The participants' stories of what they did graphically illustrate this. Furthermore, this action needs to be analysed in order to determine if the action is one of time convergence or planning. The study implies that this concept is present only when some activity takes place and that activity can be described as time convergence.

The fact that some action takes place, leads to an outcome of some sort. The original model suggested that the outcome would be either successful or unsuccessful. The data from the study also infers, that outcomes could be either successful or unsuccessful. While four participants outcomes were inconclusive and one was unsuccessful, the majority of the participants reported successful outcomes. This supported the literature and the model in terms of defining outcomes. However, the study also showed that while the outcomes may be successful, unsuccessful or even inconclusive, some of the outcomes were unanticipated and this was not apparent in the literature. The actual result was at times not what the participant had intended to occur. This was particularly noticeable where a business process was not working. It appears that the participants often ended up with more than they expected. In some cases this was with greater benefits than had been anticipated, not only had the participants solved their initial problem they had often gained something extra, such as increased learning and knowledge.

In essence this study implies that improvisation is constructed of a number of elements. The study intimates that improvisation consists of an unanticipated event occurring, a resolution being determined, an action taking place and an outcome being achieved, with each step being affected by various internal and external influences.

Future Research

The literature strongly supports the need for further research into improvisation and this study has gone a little way towards adding to the understanding of the concept of improvisation. However, as this study has only contributed in a limited way towards the understanding of improvisation, a number of further questions arise that point towards other opportunities for research into the concept.

The study indicates that the participants could identify several occurrences of unanticipated events. However, only one event (and in a few cases two) was considered where the use of improvisation was investigated. This creates an opportunity for a more thorough investigation into the use of improvisation. The study gives no indication of when improvisation is used to resolve unanticipated events. While it is unlikely that improvisation is used to respond to every unanticipated event, it is used as a process to respond to many unanticipated events. Having established that improvisation is used, future research could consider under what circumstances this is most likely.

Given that this study has indicated that unanticipated events fall into two categories, it may be prudent to consider research into whether either category is more likely to lead to an improvisational response. This is important, as it is clear from the literature and supported by findings in this study that the key starting point for improvisation to be used as a business process is an unanticipated event. This could have a significant impact on the model of improvisation.

One other area that should be considered for further research is the need to broaden the range and types of participants. This study focused on one small group who all shared the same characteristic of being NEIS clients. All of the participants were microbusinesses were without any employees, while none had been operating for more than twelve months. Consequently, one question that needs to be considered is the

application of the model of improvisation to a wider range of small businesses. For example, there was an emphasis on businesses during their start up phase, and the question arises about the application of the model to more established businesses and whether they would achieve a similar outcome. The model needs to be tested on a broader range of businesses that will take into consideration other variables that were not present in this sample.

The study used a model constructed of several factors. This was applied as a whole to the experiences of the participants. The factors could be tested independently of each other to explore their impact on the process of improvisation. For example, it may be prudent to consider in greater detail how 'intuition' and 'spontaneity' contribute to the process of improvisation. The literature identified procedural and declarative knowledge as being aspects of improvisation and these aspects were confirmed by this study. Several of the participants explained how they drew on their experiences to respond to unanticipated events. Eesley (2004) in particular raises the issue of experiences and their relationship to improvisation. The need to investigate these two factors is important, to find out to what extent procedural and declarative knowledge influence improvisation.

One other area of research that could also be considered is that of incidences where the improvisation has failed. The literature argues that research into this is lacking and this study found only one incident of failure. If, as the participants indicated, small businesses are faced with a myriad of unanticipated events, then it is reasonable to assume that not all would be successful. Therefore, it would seem to be worthwhile if research was to be carried out into acts of improvisation that have failed. Future research into improvisation should not be limited by the suggestions above.

A number of concepts also emerged from the study that were not directly linked to this study on improvisation. For example, it has already been mentioned that the participants indicated that they faced unanticipated events regularly. This could be an area for further research, how often are unanticipated events occurring and what is the impact on the businesses. Also mentioned was that NEIS clients have access to mentoring, yet there is little research into the effect that the mentoring has on the actions

of NEIS clients. This too is an area that would be worth considering for further research.

The participants responses have been taken at face value as they have been considered as experts of their own experiences. This leads to a further opportunity to undertake future research, in terms of reporting actual experiences. This study needs to be taken further, and one possible aspect is that rather than rely solely on self-reporting a future study should include observation. That is, compare the process of improvisation against the self reporting and direct observation of that improvisation.

Conclusion

Based in the literature review a proposed model of the process of improvisation was presented. The model was used as the basis of interviews of participants about their actions and responses to unanticipated events. As a result of the data collected the model was refined. This refined model gives a significant structure to the concept of improvisation in a way that contributes to a better understanding of the concept of improvisation. In has put in to a theoretical context what happens when a microbusiness is faced with an unanticipated event and responds by using improvisation. The model gives those interested in how micro-businesses respond to unanticipated events a structure from which to better understand the actions of the business operators during the start-up phase.

This study has shown that improvisation is a legitimate and common process used to resolve unanticipated events that businesses face on a day to day basis. It is a complex and pervasive process that seems to be largely unexplored. This study has made a significant contribution to the field by extending on the work undertaken to date and by the development of a model that more comprehensively represents the process of an improvisational response to an unanticipated event, in the context of small business.

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Appendices

Appendix One: Summary of Improvisation Definitions

Performing Arts Perspectives				
"actors respond to the audience's participation	(Spolin 1963; Knapp 1989)			
and develop the story accordingly"				
"playing extemporaneously"	(Schuller 1968)			
"trying something out, seeing where it leads"	(Barrett 1998)			
Teaching and Sociological Perspectives				
"teachers are known to enter the classroom with	(Borko and Livingston 1989; Irby			
a defined goal, but make a number of teaching	1992; Cleary and Groer 1994)			
decisions that do not reflect the lesson plan, but				
rather the teacher's actions reflect the needs of the				
students at that time."				
"improvisation occurs when people change the	(Powers 1981; Volkman 1994)			
definition of their relationships and then rebuild				
them in a fast and unintended way according to				
their current situation"				
"make things up"	(Mirvis 1998)			
Medical Perspectives				
"being, acting, creating in the moment without	(Nachmanovich 1990)			
props and supports"				
"practise without planning"	(Embrey, Guthrie et al. 1996)			
Management Perspectives				
"a process that brings order by reducing	(Mangham 1987; Mangham and			
confusion and making sense out of non-sense"	Pye 1991)			

"a process for developing individual solutions for	(Gobeli and Brown 1993)			
individual problems or unanticipated events"				
"winging it or making it up as problems	(Brown and Eisenhardt 1997;			
arise"	Mirvis 1998)			
"an improvement process that refines the	(Dyba 2000)			
understanding of the relationship between learning				
and action."				
"acting in a spontaneous way while being	(Crossan and Sorrenti 1997)			
guided by intuition."				
"narrowing of the time gap between	(Moorman and Miner 1998a;			
deliberately conceiving a resolution to an	Moorman and Miner 1998b;			
unanticipated event and its implementation"	Miner, Moorman et al. 2001;			
	Eesley 2004)			
"simultaneous convergence of thought and	(Ciborra 1999; Sashittal and			
action."	Jassawalla 2001)			

Appendix Two: Summary of Research Results

Sample Data Analysis

I guess this is a bit of

A049 da. DVD production aimed at corporate training market

Pre-Improvisation

Improvisation

improvising... Um, about a day.

Post Improvisation

UE:

His cousin introduced a potential client for a training video, the client hired students to do the video for 10% of the market rate.

I rang and the guy said actually, well some students were going to, have offered to do a video and, but they'd like 250 bucks for it. And I said oh really?

Res:

Value, not lose customers

well I have to do something creative because you can't just... I couldn't say to the guy, well you know, don't do it, obviously he's going to... so I thought of a way that maybe that um... I would do the training DVD for free, but I own the product it gets sold along side his product.

Value, increase income

Not if I didn't think they sold enough units for it to pay for itself and then to earn me a royalty or income stream

Outcome:

Unsuccessful to date, no sales

Successful on a personal level

Yeah, yeah. So I guess that's where I've had to sort of learn to speak their language and think in terms of them and when they see it as being a, that was a bit unexpected that a video is just a cost

Pre-Improvisation

Improvisation

Post Improvisation

Influences (internal)

Declarative

Was it just something that came to you intuitively?

R: Yeah.

I: Or did you discuss it with anyone?

R: No, I took a flatmate who's doing his MBA and he didn't see any problems with it and he usually picks...

I: so it was initially your idea?

R: Yeah, yeah.

(external)

Circumstances

It was in the morning that it happened and then by the, after the swearing and cursing until probably about 5pm or something then it... I thought well I can't... get that to shrink...

Turbulence

I guess I hadn't thought about it too much I mean I.. probably not, not really, no

I think probably a major deviation because I've taken it a step further

Time

I need to increase my income stream soon or I am off the NEIS

RESULTS										
Unanticipated Event		Resolution Sought		Influences		Improvisation		Outcome		
Planned process not working	Business opportunity	Add value	Aesthetic	Aversion	Internal	External	Time convergence	No planning	Successful	Unsuccessful
Alana Clare Dave Eddy Fred Greg Hugh Irene Jo Kevin Lee and Mary Oscar Paula Quinn Robyn Steve Tess Ewen	Bill Irene Nick Oscar Paula Robyn	Alana Bill Clare Dave Eddy Fred Greg Hugh Irene Jo Kevin Nick Oscar Paula Quinn Steve Tess Ewen	Lee and Mary Paula Robyn Steve	Clare Dave Greg Kevin	Alana Bill Clare Dave Eddy Fred Greg Hugh Irene Jo Kevin Lee and Mary Nick Oscar Paula Quinn Robyn Steve Tess Ewen	Alana Bill Clare Dave Eddy Fred Greg Hugh Irene Jo Kevin Lee and Mary Nick Oscar Paula Quinn Robyn Steve Tess Ewen	Alana Bill Clare Dave Eddy Fred Greg Hugh Irene Jo Kevin Lee and Mary Nick Oscar Paula Quinn Robyn Steve Tess Ewen	Alana Bill Clare Dave Eddy Fred Greg Hugh Irene Jo Kevin Lee and Mary Nick Oscar Paula Quinn Robyn Steve Tess Ewen	Alana Clare Eddy Fred Greg Hugh Irene Lee and Mary Nick Oscar Paula Robyn Steve Tess Ewen	Kevin