

**PROXIMAL & DISTAL EMERGENCY MANAGEMENT:
THE WELLINGTON RESPONSE TO THE CHRISTCHURCH EMERGENCY 2011**

Beverley McNally

Massey University

beverley.mcnally@paradise.net.nz

Robert Shaw

The Open Polytechnic of New Zealand

robert.shaw@openpolytechnic.ac.nz

Running Head: PROXIMAL & DISTAL EMERGENCY MANAGEMENT

**PROXIMAL & DISTAL EMERGENCY MANAGEMENT:
THE WELLINGTON RESPONSE TO THE CHRISTCHURCH EMERGENCY 2011**

ABSTRACT

This paper inaugurates a research programme examining the challenges confronting regions when a civil emergency occurs elsewhere. We introduce a new concept for emergency management planning and operations, the notion of distal and proximal planning/responding. With this distinction in mind it is possible to examine and provide an assessment of emergency management plans and responses. Our preliminary work suggests there are different structural and human resource issues to address dependent on the perspective taken. Our ongoing programme of research explores the realities and perceptions of staff in Wellington local authorities as they sought to collaborate in a situation of extreme urgency.

DEDICATION

The authors dedicate this paper to those in distress because of the Canterbury emergency 2011 and those who work in a practical way to alleviate their suffering.

**PROXIMAL AND DISTAL EMERGENCY MANAGEMENT:
THE WELLINGTON RESPONSE TO THE CHRISTCHURCH EMERGENCY 2011**

INTRODUCTION

“Emergency management incorporates all the processes of management, only that you have to engage in these processes quickly and under a degree of pressure.”

A research participant reflection

Whilst New Zealand is referred to as the “shaky isles” and the country has seen its share of the large earthquakes, most notably the 1931 Napier earthquake, it has no recent experience of a civil emergency of the magnitude of that in Canterbury in September 2010 and February 2011. The 7.1 magnitude earthquake on 4 September 2010 at Darfield (40 kilometres west of Christchurch City) was at a depth of only 10 kilometres. It was followed by a large number of significant aftershocks. In response to this first event local authorities around New Zealand sent staff to the Christchurch region to assist in the restoration of essential services, for example, water, sewage and electricity. Then on 22 February 2011 the city was rocked by a magnitude 6.3 just 10 kilometres south-east of Christchurch, occurring on a previously un-identified fault line. Buildings already weakened by the previous seismic events collapsed and resulted in requests for rescue and recovery teams from local authorities around New Zealand and from international agencies. Subsequent events of significant magnitude (between magnitude 6 and 7) continued throughout 2011. By June 2011 over 200 people had died and Central Government declared the abandonment of suburbs. From the first days it was apparent to both, emergency managers throughout the country and, the general public at large, that the entire nation would be involved the rescue, recovery and regeneration of Christchurch city.

The comment at the head of this page was made by an emergency management specialist in Wellington at the beginning of a discussion about events that related to the Christchurch emergency. It is worth keeping in mind that – if you can manage devastation you can manage anything. In fact Lagadec (1993) argues that the decision maker faced with a difficult decision does not need a first aid kit but rather the means by which to sharpen his or her judgement. He goes on to state that crisis/emergency management is not merely management at the top or a monopoly of some commander-in-chief it is a situation where everyone will have personal decisions to make, personal organisations to direct and relations to establish and maintain with the authority in charge. Consequently, the following research problem was identified:

There is limited empirical research that examines the tensions and paradoxes confronting emergency management officials when confronted by a civil emergency of the size faced by Christchurch City New Zealand in 2011. Specifically, research examining the management, leadership, and human resource challenges impacting on those officials in regions some distance from the actual emergency site and, who are expected to contribute to rescue and recovery operations.

This found expression in the following research questions:

1. What barriers problems and dilemmas were encountered by Wellington emergency management staff during the Christchurch emergency?
2. What management and coping strategies were employed to deal with the barriers/problems and dilemmas?

In this article we explore the provisions for emergency management and the interplay of legislation and practice, particularly as it is exemplified in the interaction between the Wellington region and the Canterbury region. In doing so we acknowledge the argument of Lagadec (1993) that research examining management in crisis situations must not only provide answers for those involved in such crises. It should also broaden horizons and focus thought, so that an awareness of the problem is not the only outcome. Rather, the research must expand the body of knowledge in such a manner that it is possible to consider strategic responses to an emergency event. With this commentary in mind the purpose of this article is to report on the preliminary phase of an empirical study examining the responses of emergency management professionals in Wellington to the Christchurch emergency with the aim of assisting the emergency professional to 'hone his or her judgement'.

METHOD

The desire to explore the perceptions of the research participants about the realities of their experiences during the Christchurch emergency led us to situating the study within the qualitative paradigm. Crotty (1998) argues that when setting out a research project, any researcher will hold a set of beliefs with regard to the nature of reality, a particular view of the world, and also a perspective on how a particular research project should investigate that world. These beliefs, views and perspectives are influenced by the individual's history and cultural context and have shaped his or her view of the world. This in turn influencing his or her construction of meaning (Mills, Bonner, & Francis, 2006).

Acknowledging the arguments of Leininger (1985) and Munhall (1989) we argue that by conducting a qualitative study we have at our disposal a range of methodological tools that will allow us explore the participants' perceptions and experiences and identify the social processes within their context that might affect those perceptions and experiences. Munhall and Boyd (1993) contend that qualitative research has two commonalities; the first, is an acknowledgement and acceptance that reality changes over time and reflects the perceptions of an individual, thereby creating a different reality for each person. The second commonality is that an individual's knowledge is specific to a given situation or context, thus leading to the existence of a diversity of "realities". Furthermore, we recognise the argument of Ebbs (1989) who stated that qualitative methods do not silence the voices

of the research participants. Rather they support and celebrate them for the contributions they make to organisations, communities and society.

Thematic analysis is being used to analyse the data. The use of thematic analysis supports the exploration of the mutual interactions, adding what Carr (1994) termed depth, richness and complexity to the findings. Thematic analysis is highly inductive, that is, the themes emerge from the data and are not imposed upon it by the researchers. This contrasts with a deductive study where the study commences with a theory and a resultant hypothesis, and then gathers observations in order to seek confirmation, or otherwise, of the theory. On the other hand, inductive research could be considered to be a bottom-up approach where the theory is developed as a result of the analysis of the data which is obtained by studying the social world (see Figure 1) (Gilbert, 2008a).

Put Figure One here

Accordingly, when conducting inductive research, the researcher commences with a research problem pertaining to the social world and then creates a research design that studies that social world and allows the researcher to generate a theory of that social world (Gilbert, 2008b). Once the themes have been established it is envisaged that in the final stage a deductive confirmatory process will be undertaken to test the authenticity and appropriateness of the inductive analysis. Offers from researchers working in the field of disaster management have already been received to help facilitate this process.

Thematic analysis involves the data collection and analysis taking place simultaneously. This involves the researcher with the researcher moving backwards and forwards between transcripts, memos, notes and the research literature. Consequently, even background reading can form part of the analysis process, especially if it can help to explain an emerging theme. Therefore, we are also able to analyse documents and legislation in order to add meaning to the primary data. After interviewing key emergency management staff involved in the Wellington response to the Christchurch emergency, attending emergency management briefings, examining local body documents and sourcing emergency management policies and processes of organisations publicly available both in New Zealand, Australia and the USA, patterns of experience were identified. Then all data that were that related to these patterns of experience were catalogued into sub-themes. Once the sub-themes were identified we returned to the literature in order to confirm the patterns that were emerging and formulated two key theme statements. The first, the legislative requirements underpinning responses to emergency management, and second, the unforeseen human resource implications of that response, the discussion of which now follows.

THE LEGISLATIVE AND MANAGEMENT CONTEXT

Early in the study specific concerns were raised pertaining to the legislative frameworks governing the response to civil emergencies. Specifically, the perceived adequacy of the Act of Parliament which governs emergency management in New Zealand and the provision of what could be deemed to be more effective arrangements in relation to situations where the emergency is outside of one's own district, were raised as a concern. The 2002 Act of Parliament sets out the requirements for emergency management in New Zealand and one of its leading concepts is the "Civil Defence Emergency Management Group" (Groups). The *Civil Defence Emergency Act 2002* sets out its purposes in Section 3 which are *inter alia* to:

- (a) *improve and promote the sustainable management of hazards (as that term is defined in this Act) in a way that contributes to the social, economic, cultural, and environmental well-being and safety of the public and also to the protection of property; and*
- (b) *encourage and enable communities to achieve acceptable levels of risk (as that term is defined in this Act), including, without limitation,*
 - (i) *identifying, assessing, and managing risks; and*
 - (ii) *consulting and communicating about risks; and*
 - (iii) *identifying and implementing cost-effective risk reduction; and*
 - (iv) *monitoring and reviewing the process; and*
- (c) *provide for planning and preparation for emergencies and for response and recovery in the event of an emergency; and*
- (d) *require local authorities to co-ordinate, through regional groups, planning, programmes, and activities related to civil defence emergency management across the areas of reduction, readiness, response, and recovery, and encourage co-operation and joint action within those regional groups; and*
- (e) *provide a basis for the integration of national and local civil defence emergency management planning and activity through the alignment of local planning with a national strategy and national plan; and*
- (f) *encourage the co-ordination of emergency management, planning, and activities related to civil defence emergency management across the wide range of agencies and organisations preventing or managing emergencies under this Act and the Acts listed in section 17(3).*

Thus, the Act provides for both the planning before an event, responding to an event and, for recovery after an event. When examined with the Christchurch events in mind, the Act shows considerable strengths. First, it introduces the worth notions of "hazards" and their "sustainable management". However, the burden that this places on professional emergency managers is considerable, particularly as the list of matters to be considered is substantial and inevitably generates

conflicts. When you must contribute to “social, economic, cultural and environmental well-being” and also ensure public safety and protect property, conflicts and tensions are inevitable. Equally, many of the practical decisions involved in emergency management call for satisficing decisions, that is, decisions must be made with inadequate information and it is acknowledged that optimal decisions may be beyond the ability and/or scope of the decision-maker. When legal requirements are imposed – such as the need to balance social, economic, cultural and environmental well-being – the task of decision-making becomes a daunting prospect.

The first principal of the Act is to emphasise regionalism. Essentially, rescue, stability and recovery are the responsibility of local government in the sense of local councils established under the Local Government Act 2002, or other local agencies, for examples, schools, hospitals, and police. Yet the entities charged with responsibilities under that Act are not precisely any of these bodies. Rather, the statute creates a new body, the Civil Defence Emergency Groups (Groups). The function of the Groups is set out in Section 17 of the Act. (See Appendix One).

The Groups are the principal practical operational units envisaged in the Act. They are specifically designed as functional units which will bring together people and resources in purportedly sensible combinations having regard to human and physical geography. Accordingly, the Group specified in accordance with the legislation for Wellington involves Greater Wellington Regional Council, the Wellington City Council, Porirua City Council, Hutt City Council, Upper Hutt City Council, Carterton District Council, Kapiti Coast District Council, Masterton District Council and the South Wairarapa District Council. Yet many of these Councils are geographically distant from each other. Some do not necessarily have any regular contact with each other on a regular basis. It also brings forward the appropriate local representatives and offices of central government in a network of relationships in the event of a civil emergency. Thus, the strength of the arrangement lies within the ability to share knowledge, access to expanded local knowledge, and the maintenance of flexibility within the Group’s territory. One of the functions refers specifically to the notion of cooperation between regions:

(f) when requested, assist other Groups in the implementation of civil defence emergency management in their areas (having regard to the competing civil defence emergency management demands within the Group's own area and any other requests for assistance from other Groups):

Prima facie what this would appear to preclude is one City Council (say Christchurch) asking another City Council (say Wellington, or Auckland) for assistance when an emergency has been formally declared. The early indications were that in practice, officers in regional authorities know each other in their sector and would regard communications, including discussions about needs or

requests, as a part of normal business. However, normal or otherwise, the experience of Christchurch has given us cause to consider “(f)” in terms of both its meaning and practice. Parliament’s intention with “(f)” is clear: there is strong support for Group autonomy. The Group must ask and the other Group must decide having regard to the situation in their area and requests received from other Groups. So how do Groups ensure process is followed while at the same time ensuring skilled people are immediately available should they be requested? There were reported instances where process was circumvented and requests made directly to professional bodies and/or specific agency groups without the emergency management professionals being aware that a request had been made. This has raised a concern with respect to managerial control and decision making that should be investigated further.

The second body of legislation that was deemed to impact on the ability to respond effectively to an emergency was the Occupational Health and Safety Act. Examination of organisation policies and practices indicated that the majority had some form of provision to ensure the safety of staff in the event of a civil emergency. That is, organisations conformed to the requirements of the Occupational Health and Safety Act when developing human resource policies and practices with respect to a civil emergency for their staff. However, these policies and practices were based on the presumption the staff were ‘in situ’ within the organisation’s confines or focussed on the immediate geographic location of the organisation and not necessarily the health and safety of an employee in another location. Evidence thus far indicates a paucity of planning with respect to employees that may be sent to another region or be in a different geographic location when a civil emergency occurs. Additionally, there was little evidence of human resource policies and processes that act to ensure the safety and well-being of staff who may be in a region away from home when an event such as the Christchurch earthquake occurs. One issue identified was the evacuation of people from the Christchurch area to Wellington, in particular foreign nationals. The local emergency management staff were contacted at very short notice and informed they were to receive evacuees including foreign nationals from Christchurch. Therefore, the local authority became responsible for the health and safety for people who were not their staff members.

Initial analysis indicates that reconsideration of aspects of the Occupation Health Safety Act in tandem with related emergency legislation may be required in order to ensure the safety of not only employees, but also for people the emergency management staff find themselves responsible for, in these situations.

HUMAN RESOURCE CHALLENGES

The second theme that was identified was the additional requirements made of the human resource function. The situation in Christchurch was such that teams sent there for long periods may not even be assured of food and water. Therefore, a number of different HR challenges outside the norm have become apparent. There is evidence to suggest that Wellington responders were not as

prepared for the practicalities of maintaining specialist officers in the field for a lengthy period of time as they may have been.

Challenges manifested themselves in the following ways: Accommodation ; many of the hotels in Christchurch were within the exclusion zones and some of those that were not in the exclusion zone were unsafe for habitation – therefore a core HR function for organisations sending was to ensure appropriate standards of safe accommodation. Recall that it was no longer possible to simply pick up the telephone and talk to people in the area. The question was asked as to how practical tent cities are in an event such as this?

What provision is there for rest and relaxation during extended assignments and the minimisation of stress? How can we maintain supplies of basic equipment and facilities when access is unreliable? Access to cash was also an issue reported. Power failures meant that ATM machines were not accessible and those that did initially work quickly ran out of cash and resupplying them was not possible. The banks were closed and EFTPOS uncertain even in those shops which were functioning.

Food was an issue. An organisation that deploys staff has a responsibility to ensure that employees are fed on a regular basis – in the case of the Christchurch emergency –many meals were prepared in Hall of Residence in Dunedin and flown to Christchurch. Anecdotal evidence received by the researchers suggested that in excess of 18,000 meals were supplied in this manner. A situation not appreciated at the time decisions were made to send teams into the field. The human resource implications were such that it was not merely ensuring the provision of funding – it may mean that human resources have to ensure that food is able to be supplied through alternative networks.

Many involved in the response reported difficulties with communication – particularly with their own families. Cell networks did not function reliably and the continuation of after-shocks made the exercise a worry for the families in Wellington. In New Zealand traditionally human resource professionals have little direct contact or involvement with the families of employees. Events such as the Christchurch civil emergency require an increased participation on the part of HR in employees' lives. There is a need for a higher standard and frequency of communications than would be required during a normal business trip. One suggestion was that organisations could maximise the use of asynchronous communications, such as the provision of dynamic web pages the uploading of which could be achieved though wireless/satellite internet facilities. This would allow families to leave messages and in some cases to reassure each other that everything 'is OK'. This may mean that current organisational policies with respect to the provision and funding of cell phones may need to be waived during the emergency. In one local authority it was noted in a number of homes both parents were working and this may mean assistance in delivering children to and from school or the provision of after-school care. The conclusion to draw from this is that there is a substantial human resources

component to emergency management in a different location - work needs to be done to address this component.

PROXIMAL AND DISTAL EMERGENCY RESPONSES

The results of this initial investigation suggest that a new concept is needed in emergency management planning in New Zealand. It is the concept of proximate-distal planning/responding. We advance this concept on the basis of our preliminary enquiries into the organisational structures that pertained to the Christchurch situation and how events actually occurred in Wellington as the emergency unfolded. Immediately, we must emphasise that this notion is based on minimal investigation and it is therefore advanced to facilitate discussions with our colleagues. We define our terms this way; Proximal emergency management planning is that planning which is undertaken to address an emergency in the location of the planners. Distal emergency management planning is that planning which is undertaken to address an emergency outside of the territory of the planners. Distal and proximal responses are, obviously, the events that actually occur in a location in response to an emergency in that location (a proximal response) and elsewhere (a distal response). The terms are meant to relate only to the work of government emergency management professionals and those who respond in accordance with their strictures. The thesis we advance is that the emergency planning is well advanced in relation to proximal emergencies, but not equally advanced in relation to distal emergencies.

FURTHER RESEARCH FORESHADOWED

The present conference paper is an opportunity to indicate to colleagues our proposal to develop in a more systematic way the themes which the present paper indicates. We have begun to interview key managers in the Wellington region to record their perspectives and insights. This work we deem urgent because memories change and details are lost in the march of time. The Wellington situation is ideal for our purposes because the managers involved all know each other well and work harmoniously as professional colleagues. They are all experienced in their field and competent. Consequently they respond in an open and positive way to difficulties which become evident and this allows insights to emerge and suggestions to be made in a supportive environment.

There are two major themes: structural issues (lines of authority, the locus of decision, ease of communications) and human resources management. These themes refer in both cases to proximal management. We will explore the early events that occurred in Wellington as the Christchurch situation became known. From the first, the City Councils in the Wellington Region began a collaboration to manage their work in response to Christchurch. Managers were conscious of the need to target efforts precisely, to conserve resources and to avoid duplication. There were two kinds of initiatives to be considered: (1) those which related to the establishment of facilities in Wellington as

people fled Christchurch and (2) those which related to the transport to Christchurch of specialist technical people, along with some equipment, and their maintenance there.

CONCLUSION

The Wellington regional emergency management team are actively pursuing improvements to procedures, training, and readiness. In May 2011 the Ministry of Civil Defence and Emergency Management published a draft capability assessment to facilitate the on-going process of development (Ministry of Civil Defence & Emergency Management, 2011). This report responded to the concerns of the profession and the Group Plan which became operative on 5 May 2005 after the formation of the Wellington Region Emergency Management Group on 15 May 2003, extensive consultation and the approval of the Minister of Civil Defence. This plan was a major formal step in the region in response to the 2002 Act. The May report created considerable public interest particularly when it was featured in a major national newspaper (Chapman, 2011). Wellington has reason to be concerned with proximal emergency management: if the Wellington fault line ruptures it is calculated to release four-times as much energy as the 7.1 earthquake at Darfield on 4 September 2010. The report has as its focus minor and major events within the region, which is to say proximal planning and responding. The chairperson of Greater Wellington The Regional Council, Fran Wilde was reported as saying she did not agree with all that was in the report because any event in Wellington “was likely to be a national emergency” (Chapman, 2011: 1). An outline of the key points of the report can be found in Appendix Two. The proximal distal framework applies to this list. It is apparent that the structural and human resources issues which the present paper identifies are reflected in the list. However, they relate to proximal planning and responding. They do not have the perspective necessary to facilitate Wellington’s response to an out-of-district crisis.

We show in the present paper some of the complexities inherent in emergency management when the event is devastating and well beyond the capacity of any local organisations – importantly it is distal. Perhaps the Act did not sufficiently envisage this situation and the fact that Government quickly introduced legislation specifically to alleviate difficulties in Christchurch supports this contention to some extent. However, the purpose and the structure of the *Civil Defence Emergency Act 2002* is enlightened in many ways. It does address the geographical complexities of the country – both human and physical – and it does strike a balance between prescriptive and permissive provisions. In emergency management the rules must facilitate action and not hinder initiative. The Act is a significant positive contribution to such an ideal.

Yet there are issues around distal emergency management. The pattern of response in Wellington, as shown in a sequence of events, indicates that the lines of communication and control/decision might be improved for distal responses. The Act suggests Group to Group

communication is vital to the raising of support from outside of one's own region, but depends on the regions all functioning. It might be asked, why should (say) the Auckland regional Group or the Taranaki regional Group mobilise for an event in Southland. Even if it is a major event is it reasonable to trigger every Group in the country to readiness? On the other hand, local government managers and many central government officials have strong personal and professional relationships, derived often from both emergency management activities and activities outside of that framework. As occurred in Wellington, it seems sensible that use is made of these relationships.

Finally, there is emerging set of themes that we should address regarding distal emergency management. The structural issues that derive first, from the statute and, then from the emergency itself, are of paramount concern, lines of communication and the loci of decisions need to be explicit and work in a timely manner. The second major theme is around human resource management in distal responses. How might such things be addressed in a systematic and comprehensive way? Through the provision of *a specific audit that implements the concepts of proximal and distal planning and responding*. We look forward to the contribution of practitioners and academics on these and other emerging matters.

REFERENCES

- Carr, L. (1994). The strengths and weaknesses of quantitative and qualitative research: What method for nursing. *Journal of Advanced Nursing*, 20, 716-721.
- Chapman, K. (2011, Thursday, June 2, 2011). Can we cope with a big one? Government report finds cracks in capital's emergency management. *The DominionPost*, p. 1.
- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Thousand Oaks, CA: Sage.
- Ebbs, C. A. (1989). Qualitative research inquiry: issues of power and ethics. *Education*, 117(2), 217-222.
- Gilbert, N. (2008a). Research, theory and method. In N. Gilbert (Ed.), *Researching social life*. London: Sage Publications.
- Lagadec, P. (1993). *Preventing Chaos in a crisis: Strategies for prevention, control and damage limitation*. Maidenhead, UK: McGraw-Hill.
- Leininger, M. M. (1985). *Qualitative research methods in nursing*. Orlando, FL: Grune & Stratton.
- Mills, J., Bonner, A., & Francis, K. (2006). The development of constructivist grounded theory. *International Journal of Qualitative Methods*, 5(1). Retrieved from http://www.ualberta.ca/~iiqm/backissues/5_1/pdf/mills.pdf
- Ministry of Civil Defence & Emergency Management (2011). *Wellington Region Civil Defence Emergency Management Draft Capability Assessment Report*. Wellington: Ministry of Civil Defence & Emergency Management.
- Munhall, P. (1989). Philosophical ponderings on qualitative research methods in nursing. *Nursing Science Quarterly*, 2(1), 20-28.
- Munhall, P., & Boyd, C. (1993). *Nursing research: A qualitative perspective*. New York: National League for Nursing Press.

APPENDIX ONE

(1) The functions of a Civil Defence Emergency Management Group, and of each member, are to— (a) in relation to relevant hazards and risks,—

(i) identify, assess, and manage those hazards and risks:

(ii) consult and communicate about risks:

(iii) identify and implement cost-effective risk reduction:

(b) take all steps necessary on an ongoing basis to maintain and provide, or to arrange the provision of, or to otherwise make available suitably trained and competent personnel, including volunteers, and an appropriate organisational structure for those personnel, for effective civil defence emergency management in its area:

(c) take all steps necessary on an ongoing basis to maintain and provide, or to arrange the provision of, or otherwise to make available material, services, information, and any other resources for effective civil defence emergency management in its area:

(d) respond to and manage the adverse effects of emergencies in its area:

(e) carry out recovery activities:

(f) when requested, assist other Groups in the implementation of civil defence emergency management in their areas (having regard to the competing civil defence emergency management demands within the Group's own area and any other requests for assistance from other Groups):

(g) within its area, promote and raise public awareness of, and compliance with, this Act and legislative provisions relevant to the purpose of this Act:

(h) monitor and report on compliance within its area with this Act and legislative provisions relevant to the purpose of this Act:

(i) develop, approve, implement, and monitor a civil defence emergency management group plan and regularly review the plan:

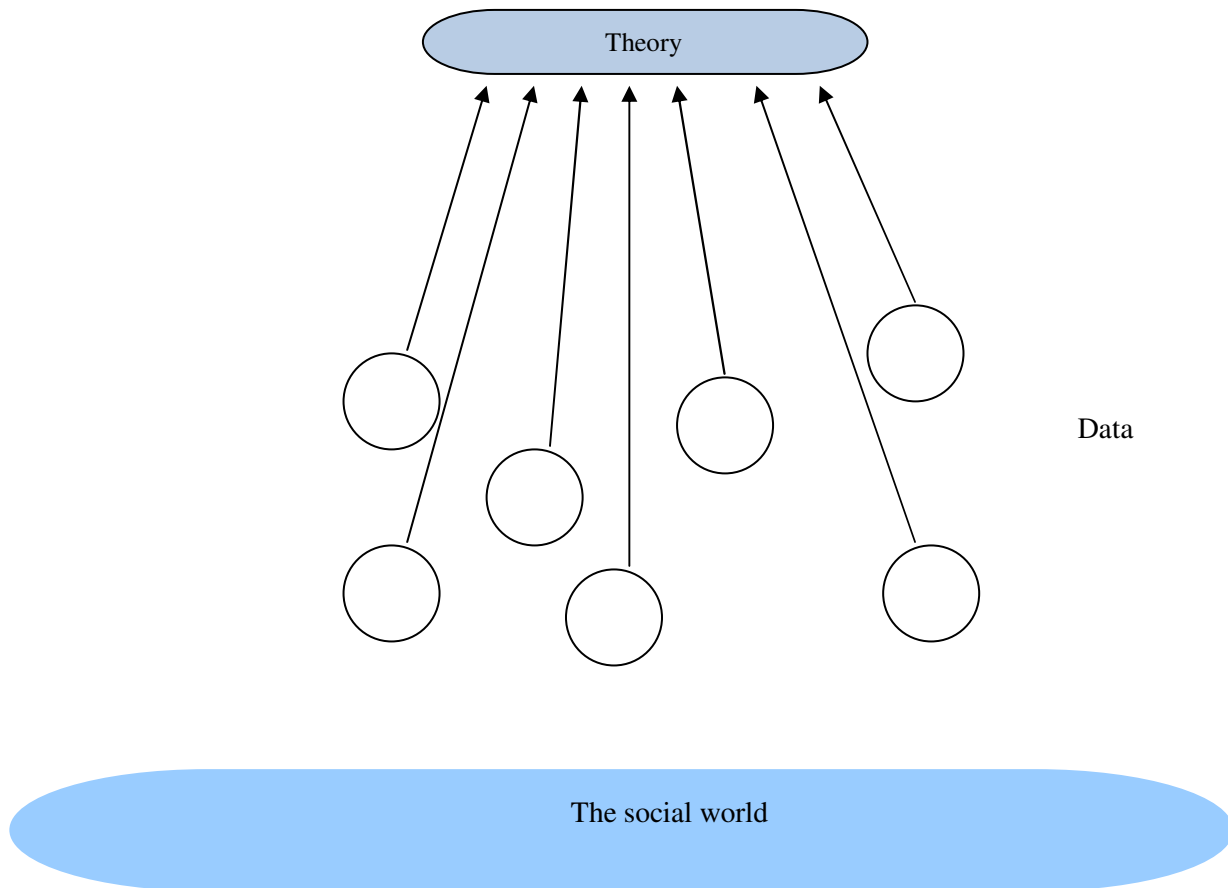
(j) participate in the development of the national civil defence emergency management strategy and the national civil defence emergency management plan:

(k) promote civil defence emergency management in its area that is consistent with the purpose of this Act.

APPENDIX TWO

Government report into Wellington's emergency planning identifying the - "key priority areas for attention":

- i. Leadership by the Joint Committee and Coordinating Executive Group to provide the Group with direction and priorities.*
- ii. Definition of the Civil Defence Emergency Group's roles, responsibilities and structures.*
- iii. Generating an effective organisational culture for the structures, identities, and arrangements through which Civil Defence Emergency Management is delivered in Wellington.*
- iv. Clarification of the role and structure of the Group Emergency Management Office.*
- v. Development of the Group's second generation plan with an associated work programme for the Group.*
- vi. Promotion of Civil Defence Emergency Management in councils and the integration of Civil Defence Emergency Management Principles into other aspects of council's planning and activities.*
- vii. Appointment of Group and Local Recovery Managers and development of recovery plans.*
- viii. Appointment of Group Welfare Manager and development of welfare arrangements across the region. (Ministry of Civil Defence & Emergency Management, 2011: 5)*

B. FIGURES AND TABLES**Figure 1: Theory construction by induction**

Source: (Gilbert, 2008a: 27)