TURNING CRISIS INTO RENEWAL: GOVERNMENTAL DISCOURSE OF RENEWAL IN REBUILDING WENCHUAN EARTHQUAKE-DAMAGED COMMUNITIES

by

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Turning Crisis Into Renewal: Governmental Discourse of Renewal In Rebuilding Wenchuan Earthquake-Damaged Communities

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DEDICATION

I proudly dedicate this thesis to my loving husband, Ben, who is a constant source of love, encouragement and support from the very first idea of this project to the very final hour. It is a true gift to have you by my side. I will never forget how much time you have spent assisting me with this study. This thesis would not be completed without your physical, intellectual and spiritual contribution.

This is also dedicated to my parents who taught me it is OK to fail and I should never stop trying. I have learned perseverance and passion from you which have been so essential in my professional and personal endeavors. My in-laws have been offering everything they have and I know they scarified a lot to support me to get the degree. My two sisters, my son and many of my friends are important sources of strength to get me through all the difficulties in this educational journey.

After all, I am *me* because of all of you. Thank you all for guiding and helping me to become who I am today.
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LIST OF ABBREVIATIONS

PR ................................................................................................................ Public Relations
DR ............................................................................................................. Discourse of Renewal
IRT ........................................................................................................... Image Repair Theory
SCCT .................................................................................................. Situational Crisis Communication Theory
WPDRR .......................................................... Wenchuan Post-disaster Restoration and Reconstruction
ABSTRACT

TURNING CRISIS INTO RENEWAL: GOVERNMENTAL DISCOURSE OF RENEWAL IN REBUILDING WENCHUAN EARTHQUAKE-DAMAGED COMMUNITIES

Yue Hu, Ph.D.

George Mason University, 2012

Dissertation Director: Dr. Carl Botan

This study reviews and evaluates public relations (PR) campaigns launched by the Chinese government to facilitate long-term disaster recovery after the Wenchuan earthquake in 2008. Theory of Discourse of Renewal (DR) is employed to guide the study to explore how the Chinese government utilized communication to help communities recover from disaster, and even promote community growth. Steered by the co-creational perspective, this study also examines the influence of PR campaigns on publics’ situation awareness, attitude agreement, perceived care and concern, and ultimately publics’ relationship with the Chinese government in renewal. A Discourse of Renewal Evaluation model is developed and tested. Furthermore, this study investigates the communication obstacles that constrain the effectiveness of DR. In-depth interviews, content analysis and survey are conducted to analyze the themes, characteristics,
effectiveness and barriers of the campaigns. Findings indicated that 1) DR theory, which has heretofore been developed and applied mainly in Western culture, can inform the study of crisis communication in an eastern culture especially in China, 2) DR employed in government’s campaigns can be very powerful in achieving PR goals in crisis renewal, and 3) imbalanced deployment of campaign resources can affect the outcome of DR. Implications about how to utilize these findings to better plan and implement long-term DR campaigns are discussed.
CHAPTER ONE. INTRODUCTION

The world is inevitably faced with a growing number of natural disasters—earthquakes, hurricanes, severe flooding and others (McEntire, Fuller, Johnston, & Weber, 2002; Quarantelli, 1993; Stallings, 2002). Since the early 1970s the impact of disasters has become significantly greater as the number of those affected has increased (IFRC/RCS, 2002). During the past decade more than 2.5 billion global citizens were affected by disasters; 7184 natural hazard events were reported which caused 1.1 million deaths (IFRC/RCS, 2010).

These natural disasters resulted in great human, property, and environmental losses along with social and economic disruption (McEntire et al., 2002). In 2005 Hurricane Katrina caused damages exceeding $100 billion, the costliest natural event ever to occur in the U.S. (Knabb, Rhome, & Brown, 2011). In some developing countries disasters can even cause political instability for years. Two such examples include the 1972 earthquake in Nicaragua and 1998 Hurricane Mitch in Honduras (McEntire et al., 2002).

The increasing adverse impact of natural hazards calls for research with a broad view and a revolutionary approach (Britton & Clarke, 2000; Geis 2000; Mileti, 1999). The following paragraphs briefly discuss the current problems in disaster studies, the
general research question, and the purpose of this study followed by a chapter summary and preview.

**Statement of the Problem**

Many regions in the world are being subjected to population growth, building of structures, and economic development which means that a greater number of people and greater amount of property are vulnerable to the risks of different disasters (Quarantelli, 1993). Moreover, network linkages in modern societies make possible chain reactions which can turn an incident into a catastrophe (Quarantelli, 1993). Natural disasters can interact with human structures and processes in highly complex and unpredictable ways that often accentuate harm (Comfort, 1989). That is, disasters in the form of earthquakes, hurricanes, and floods, although natural processes, can have profound effects when combined with established human structures in communities (Sellnow, Seeger, & Ulmer, 2002).

The natural/man-made turbulent events are typically classified as accidental crises (Coombs, 1995). The crises which derive from the complex, unforeseen, and unanticipated interactions between natural phenomena and human activity are particularly difficult to predict, plan for or control (Seeger, Sellnow, & Ulmer, 2003). The nature of these events will seriously stress existing emergency plans and crisis communication strategies and require more effective interagency coordination in disaster response.

A society and its units can be severely impacted once a large-scale natural disaster strikes (Kreps, 1984). Disaster requires responses from different sectors in the
community which set aside prior activities and focus time, effort and attention on a common goal (Wenger, 1978). Crisis communication in such cases is believed to be the key in disaster rescue and recovery (Seeger & Ulmer, 2002). Stakeholders usually look for information from credible sources to decide how to evaluate, think and react to a crisis (Seeger, Sellnow, & Ulmer, 2003). However compared to organizational or political crises, communication in natural disasters has received less systematic attention (Sellnow, Seeger, & Ulmer, 2002).

**General Research Question**

In recent years some researchers have started to study communication in initial response to natural disasters. *The Journal of Applied Communication Research* had an entire issue exploring various avenues of study pertaining to Hurricane Katrina, such as discourses of U.S. Senators in response to Hurricane Katrina (Waymer & Heath, 2007), the dissemination of health-related information (Vanderford, Nastoff, Telfer, & Bonzo, 2007), weather broadcasts (Daniels & Loggins, 2007), and victims’ perceptions of hazard and outrage (Lachlan & Spence, 2007). Reierson (2009) analyzed Hurricane Katrina from a community perspective in order to disclose residents’ sense-making process and how Discourse of Renewal had been employed in community renewal. Hazbargen (2011) examined crisis communication strategy throughout the life cycle of the 2009 Red River spring flood and explored the role of spokesperson credibility in successful renewal.

While crisis communication is regarded as a vital element in immediate response, long-term social recovery for communities is typically overlooked and outside the purview of emergency response studies (Picou, Marshall, & Gill, 2004). Comparing with
immediate crisis response, fewer studies have focused on how communication can go beyond the initial response period and support long-term recovery (Reierson, Sellnow, & Ulmer, 2009). In order to enrich the knowledge of recovery rhetoric, this study will pay special attention to long-term communication intended to respond to crises and their aftermath. Sometimes referred to as mitigation communication (Millar & Heath, 2004) or renewal communication (Ulmer, Sellnow & Seeger, 2007) the communicative efforts studied here are a critical part of the broader study of crisis communication that has not received as much attention as its importance warrants.

Disaster recovery is a set of activities designed to return the affected community to pre-disaster or, preferably, an improved state (McEntire, 2007). It is one of the major phrases of crisis management (Millar & Heath, 2004). When a natural disaster hits a community challenges for disaster recovery remain acute even when the urgency is removed and the public’s attention begins to fade. After the immediate response the crisis is not over. Indeed, survivors usually find themselves losing dwelling places and living resources. A 1995 earthquake in Kobe, Japan left 310,000 people homeless (Begley, 1995). In 2005, Hurricane Katrina hit the Gulf States in the United States and within the destroyed communities there was no power or water and limited transportation (OEDER, 2005). Intense chaos was generated for individual citizens and organizations which created a significant challenge to long-term recovery.

In recovery phase, policies and procedures need to be prepared and executed for continuation of infrastructure and restoration of social life. Instead of stepping into a post-crisis communication phase which mainly focuses on learning from the event and
preparation for future crises (Coombs, 2007a), it is essential for the responsible entity to focus on how to communicate with the community about their goals, plans and execution of long-term disaster recovery. A set of communication strategies needs to be identified for the disaster recovery phase as distinct from immediate disaster response or post-crisis efforts.

**Purpose of the Study**

This study reviews and evaluates communication campaigns launched by the Chinese government to facilitate long-term disaster recovery after the Wenchuan earthquake in 2008. The case is selected because the earthquake had a devastating impact on a large community and communication campaigns launched by Chinese governments after the earthquake were believed to have helped in turning the disaster into an opportunity for growth (Chen, 2009). Study of this case offers potential applications for similar situations.

The main purpose of this study is to learn how communication may assist or impede long-term disaster renewal. Discourse of Renewal framework guides the design of the study. In particular, this project explores how Chinese governments utilized discourse of renewal to help communities recover from an earthquake, and even promote community growth; how renewal campaigns had influenced residents’ relationship with the Chinese government and what the communication obstacles were that limited the effectiveness of renewal discourse. In-depth interviews, content analysis and surveys are conducted to explore the themes, characteristics, effectiveness and obstacles of the campaigns.
This study is the first attempt to explore renewal discourse in a culture different from Western culture and is an initial scientific test of the effectiveness of renewal discourse. Findings extend our theoretical understanding of 1) how renewal discourse theory, which has heretofore been developed and applied mainly in Western culture, informs the study of crisis communication in an eastern culture especially in China, 2) how effective renewal discourse campaigns could be in achieving PR goals, 3) what the factors are that affect the effectiveness of renewal discourse, and our practical understanding of 4) how to better plan and execute a long-term disaster renewal discourse.

**Summary and Preview**

This chapter provided an introduction to communication needs in long-term disaster recovery, especially during a natural disaster. The greater impact and complex nature of natural disasters were addressed which indicates the challenge faced by the public emergency managers. This chapter had also identified the gap in the current disaster literature and contends that the proposed general research question is to seek a set of effective communication strategies for long-term disaster response. The purpose of the study was discussed in a conclusion which gave an overview of the whole project.

The next chapter reviews relevant literature of the concepts and theories used in the study, introduces the case and discloses research questions. Chapter three, methodology, discusses approaches to seeking answers to research questions. Findings are illustrated in chapter four and five, and are discussed in chapter six. The final chapter introduces the conclusions, implications, limitations, and directions for future study.
CHAPTER TWO. LITERATURE REVIEW

To explain the conceptual framework from which the present study was drawn, three areas are first introduced: studies of disaster and crisis, theories of crisis communication, and the DR framework. Next, this chapter reviews two other related fields—risk communication and emergency management in order to find perspectives and strategies which can be informative to the case analysis in this project. An important missing component in the literature has been identified and articulates research questions.

Disaster and Crisis

Disaster

No clear consensus has been reached about what disaster is (Kreps, 1984; Myers, Slack, Singelmann, 2008; Quarantelli, 1993). Yet researchers widely agreed that disasters are inherently sociological processes (Bolin, 1998; Perry & Quarantelli, 2005; Quarantelli, 2000; Smith, 2006). Quarantelli (2000) defines disasters as ‘‘relatively sudden occasions when, because of perceived threats, the routines of collective social units are seriously disrupted and when unplanned courses of action have to be undertaken to cope with the crisis’’ (p. 682). Examples include geophysical hazards (such as hurricanes and floods), environmental degradation(such as drought and desertification), biological hazards(such as insect infestation and disease epidemics), technological agents (such as oil spills and other pollutants), war and other types of civilian unrest (Dynes &
Given that the focus of this project is on natural disasters it is necessary to distinguish between a natural disaster and disasters of other types. Natural disasters are the result of geophysical processes; meteorological, geological, and hydrological, within the earth and its atmosphere (McGuire, Mason, & Kilbourn 2002). Natural disasters include such occurrences as earthquakes, hurricanes, tornadoes, tsunamis, drought, and floods (Burton, Kates, & White, 1978). These types of disasters differ from those caused by industrial agents such as chemical spills, biological sources, such as disease epidemics, or slow-onset environmental degradation (McGuire, Mason, & Kilbourn 2002; Shrivastava, 1987).

Since World War II disaster research has extended from some earlier works (Carr, 1932; Oueen & Mann, 1925) to a variety of developmental models to improve understanding of disasters in order to minimize their undesirable consequences (Powell, Rayner, & Finesinger, 1953; Wallace, 1956; Barton, 1969). Yet this literature is oriented to the sequence that begins with a warning of danger and moves through the onset of danger to the problems of alarm, panic, and rescue. None of the sequence patterns presented in that literature are of much help in dealing with community recovery in the long run.

Recently researchers were calling for a broader view of the disaster problem as well as a revolution in approach (Britton & Clarke, 2000; Geis 2000; Mileti, 1999). It is believed the time has come to change the way disasters are perceived and how to cope
with them (Geis, 2000). Some researchers argued that disasters provide opportunities to examine aspects of social structures and processes (Turner, 1967) and present rich data for addressing questions about social entity’s origins, adaptive capacities, and survival (Kreps, 1984). Beyond learning how to minimize the undesirable consequences of disaster, studies should explore how communities may grasp the opportunity for growth in coping with disasters.

**Crisis**

Crises have been studied by organizational, public relations, rhetoric, health and medical, political and military scholars. For instance, Seeger and his colleagues (1998, p. 233) defined crisis as “a specific, unexpected and non-routine organizationally based event or series of events which creates high levels of uncertainty and threat or perceived threat to an organization’s high priority goals.” Coombs (2007b, p. 2–3) emphasized the role of stakeholders, stating that crisis is “the perception of an unpredictable event that threatens important expectancies of stakeholders and can seriously impact an organization’s performance and generate negative outcomes.” In order to extend the discussion to a community level this project defines crisis as *an event or series of events that is unpredictable and challenging, and can have major impact on the organization, industry, stakeholders or community.*

In order to understand what a crisis is, it is important to separate what it is not—incidents and accidents. Incidents are unpredictable events of limited duration and accidents are systemic disruptions that do not affect basic assumptions and meanings (Pauchant & Mitroff, 1992). Crisis should be reserved to define serious events that
require allocation of time, attention, and resources from management (Billings, Milburn, & Schaalman, 1980; Coombs, 2010). It is a disruption that “physically affects a system as a whole and threatens its basic assumptions, its subjective sense of self, its existential core” (Pauchant & Mitroff, 1992, p. 12).

**Association between disaster and crisis**

Natural disasters (such as earthquakes, hurricanes, and floods) often strike without warning and have the potential to seriously impact the community and social units. The sudden and threatening nature of natural disasters often makes people involved find themselves facing severe crisis situations. Therefore, natural disasters are usually classified as an accidental and external crises (Coombs, 1995; Egelhoff & Sen, 1992).

**Crisis response**

Weick (1995) characterized crisis as low probability-high impact events that place severe demands on sense-making for both participants and decision-makers. Established structures, routines, procedures, rules, relationships, norms and belief systems often break down and there is a critical need for almost immediate and accurate information for the organization and stakeholders. Crises challenge the ability of managers to predict consequence and develop coping strategies for high levels of uncertainty (Seeger, Sellnow, & Ulmer, 1998). Under such stressful and uncertain conditions crisis managers and decision-makers may select maladaptive strategies such as discounting the severity of the crisis or denying responsibility. Such responses can lead to a mushrooming crisis and add even more fuel to the public outrage. In contrast, effective crisis response may reduce the negative impact of event and even turn the situation into a positive one by resolving
the problem. The next section discusses the two opposite possibilities of crisis-management outcomes.

**Threat and opportunities in crises**

The Chinese symbol for crisis (simplified Chinese: 危机) contains two characters that represent “danger” and “opportunity.” This translation has been frequently used in the argument that organizations and communities have the potential to benefit from crises (Coombs, 2010). Prince (1920) describes a crisis as a critical moment for an entity to use in order to improve its position in a social hierarchy. Marconi (1992) argued that crises can result in intense media coverage; emphasizing statistical data and examples of public service during times of crisis can actually enhance the company’s credibility. Crable and Vibbert (1985) viewed crisis as a moment of decision when a policy resolution is demanded. According to them, entities should consistently engage in public advocacy or issue advocacy so that when issues peak in the public agenda, they are prepared to argue for policy decisions conducive to their goals.

Indeed, scholars argue that opportunity and threat are a function of the outcomes of crisis management (Coombs, 2010). That is, crises are inherently threats, but how the crisis is managed determines whether the outcomes are threats or opportunities (Seeger & Ulmer, 2001, 2002). Maladaptive crisis responses trigger more outrage and impede resilience. Effective crisis management can sometimes turn a devastating event into an opportunity for growth and result in a stronger organization, more developed industry or more prosperous community. Understanding the dual nature of crisis-management can lead to better planning for crisis response.
**Crisis Communication**

**Studies on crisis communication**

Crisis communication is the “verbal and nonverbal responses an organization uses to address a crisis” (Coombs, 1995, p. 128) and can be defined broadly as the collection, processing, and dissemination of information required to address a crisis situation (Coombs, 2010). According to Coombs, crisis communication can be implemented in the three stages of crisis management: pre-crisis, crisis-response and post-crisis. In the pre-crisis stage crisis communication revolves around 1) collecting information about crisis risks, 2) making decisions about how to prevent crises, and 3) training people who will be involved in the crisis management process. Communication during the crisis includes 1) collecting and processing of information for management decision-making, 2) creating and disseminating crisis messages to stakeholders. Post-crisis involves 1) dissecting the crisis management effort, 2) communicating necessary changes to individuals, and 3) providing follow-up crisis messages as needed.

Crisis communication has focused on what organizations say and do as a response when a crisis occurs (Coombs, 2010). Crisis responses are highly visible to stakeholders and very important to the effectiveness of the crisis management effort. While improper responses make situations worse, effective crisis communication strategies can advocate values and beliefs, build trust, unite the stakeholders and encourage resilience. In an external crisis such as a natural disaster crisis communication should be an essential element along with any rescue, relief and recovery effort. Responsible agencies should broadcast crucial information about unsafe areas, survivor resources, and important
health and public safety issues can help prevent further outbreaks of disease and post-disaster traumas.

Crisis communication is not only vital to the immediate response but also imperative for rebuilding and recovery. Information needs to be effectively delivered to ensure that rebuilding efforts are consultative, transparent and accountable. Over the long-term recovery effective communication efforts can help develop a healthy public sphere, even where none has existed before. Theories regarding such communication differ in perspective and focus on discrepant strategies. Next section will reviewed the major theories in the area of crisis communication.

**Theories in crisis communication**

Academic research in crisis communication has focused on the strategic use of crisis responses (Coombs, 2010). The most introduced theoretical frameworks include application of apologia, image repair theory (IRT) and situational crisis communication theory (SCCT). The three dominant schools of crisis communication research have been heavily influenced by rhetoric (Coombs, 2010).

Apologia is one of communication’s most enduring genres beginning with classical rhetoric (Downey, 1993). It is “a rhetorical concept that explores the use of communication for self-defense” (Coombs, 2010, p. 30). Ware and Linkugel (1973) proposed four strategies to apologists: denial, bolstering, differentiation and transcendence. Many studies on organizational apologia utilized Ware and Linkugel’s framework; however, researchers quickly began to go beyond this short list of strategies and looked for other frameworks related to image restoration.
Benoit (1995) has developed a framework of image repair which has been applied in a large number of studies (Benoit & Brinson, 1994; Benoit & Czerwinski, 1997; Benoit & Lindsey, 1987; Brinson & Benoit, 1996). This framework is based on the assumption that image and reputation are valuable for individuals and organizations, and when reputation and image are threatened, crisis managers should make efforts to get the organization out of a crisis situation as quickly as possible with as little damage to its reputation and image as possible (Reierson, 2009). According to this theory, five image-restoration strategies could be applied in a crisis situation. They include denial (repudiating the accusation or shifting the blame), evading responsibility (claiming a lack of responsibility), reducing the offensiveness of the event (bolstering the audience's positive affect; minimizing the unpleasantness of the offensive act; attacking the accuser; favorably comparing the act to similar, but more reprehensible, acts; placing the act in a larger, more desirable, context), mortification (admitting the wrongful act and asking for forgiveness), and corrective action (correcting the problem).

Coombs’ SCCT framework is a contingency approach that seeks to link strategies to specific contextual variables (Coombs, 2004). This theory suggested crisis history, crisis responsibility, and crisis type would affect the influence of a crisis and response strategies should consider the situations of it. Accordingly, strategies were suggested between defensive and accommodative responses to the crisis. Several studies have refined and tested propositions proposed by SCCT (e.g., Coombs 2007c; Coombs & Holladay 1996, 2001).
Though all three theoretical frameworks provide guidelines for practitioners coping with crises, the emphasis of these theories is on how to minimize the negative effects of crises. None focused on how a responsible entity can communicate to facilitate crisis recovery and rebuilding. A most recent innovative line of crisis communication research is Discourse of Renewal (DR) (Seeger & Ulmer, 2002). DR differs from corporate apologia, IRT and SCCT by its emphasis on opportunities, future and hope. The focus is on helping victims and rebuilding houses and infrastructures in the damaged community.

The nature and functions of the DR framework indicate its usefulness for developing a more nuanced understanding of natural disasters in promoting long-run community growth. Research has reported that renewal can be found in natural disasters. The utility of this framework has been demonstrated in the immediate aftermath of floods, hurricanes and wildfires (Hasbargen, 2011; Reierson, 2009, Ulmer, Sellnow, & Seeger, 2007). The focus of this study is to understand the role of communication in long-term community recovery after a natural disaster hits. DR which addresses all phases of recovery focuses attention on recovery from natural disasters in ways that other theories overlook.

**Discourse of Renewal**

The purpose of DR is to motivate and organize efforts to recover and even prosper following a crisis (Seeger & Griffin Padgett, 2010). The strategies in DR emphasize moving beyond the crisis, how things will be better for the organization and its
stakeholders. Next paragraphs will explicate concepts, assumptions, themes, characteristics and conditions of the theory.

**Conceptualization of DR**

Renewal is defined as the actions that reconnect and revitalize the core values of the organization or community (Hurst, 2002). It has been identified with a fresh sense of purpose and direction an organization discovers after it emerges from a crisis (Ulmer, Sellnow, & Seeger, 2007). Hurst assumed that when an entity was founded, “there was something of value, some shared experience that was authentic and meaningful.” (p. 3) When a disaster hits, original beliefs, feelings, or meanings either fade or are lost. Renewal reminds these patterns as the entity travels forward in the right direction and maintains continuity with the past.

Discourse refers to any written or spoken communication. It expresses and creates structure and culture for a group (Mumby & Clair, 1997) and plays a particularly critical role in crisis situations (Weick, 1988). Discourse of renewal is the communication of renewal and is best seen as an “optimistic discourse that emphasizes moving beyond the crisis, focusing on strong value positions, responsibility to stakeholders, and growth as a result of the crisis” (Ulmer & Sellnow, 2002, p. 362). Traditional themes in crisis discourse are blame, culpability, responsibility, defensive tactics, explanation and image repair. A discourse of renewal is distinct in that it “is grounded in larger value dimensions of organizations and disasters, stakeholder relationships, and in the opportunities inherent to these events” (Ulmer, Seeger, & Sellnow, 2007, p. 131).
Theory of DR

Researchers believed that discourse connecting with core values, establishing the importance of the past in the present, and spurring efforts and energy toward progress and the future may facilitate renewal (Hurst, 2002; Seeger & Ulmer, 2002). Embracing the renewal idea, crisis scholars started to identify successful cases using discourse of renewal. Most of the efforts focused on distinguishing a DR framework from other strategies (see Seeger & Ulmer, 2001, 2002; Seeger, Ulmer, Novak, & Sellnow, 2005; Ulmer, 2001; Ulmer & Sellnow, 2002; Ulmer et al., 2007).

Through case studies of how Malden Mills and Cole Hardwoods responded after devastating fires, Seeger and Ulmer (2002) identified four themes that characterized the constructive responses of these two organizations: commitment to stakeholders, commitment to rebuild, commitment to the discourse of renewal, and the role of leadership. Ayers (2002) identifies similar themes necessary for renewal as “identifying organizational structure, empowerment, communication, interdependence, and shared vision—as organizational climate conditions that set the stage for effective information processing and efficient organizational renewal” (p. 165).

Ulmer and Sellnow (2002) examined the case of 9/11 terrorist attacks and found that several organizations successfully pledged their commitment to serve their stakeholders, correct past security measures, and reaffirm the nation’s core values. Ulmer, Seeger, and Sellnow (2007) identify four salient characteristics of renewal discourse. They contended that renewal is 1) provisional rather than strategic, 2) prospective rather than retrospective, 3) capitalizing on the opportunities embedded in the
crisis, 4) leader-based. Reierson (2009) synthesized conditions and properties defining renewal: 1) corrective action, 2) organizational transformation, restructuring and change, 3) positive emphasis in discourse over cause, blame, and culpability, 4) focus on rebuilding and the future, 5) strong company and leadership ethics and morals, 6) commitment to and strong relationship with stakeholders, 7) leader playing pivotal role in creating meaning of crisis, and 8) quick resolution of monetary and legal issues.

Themes of DR

Theme refers to a central topic presented repetitively and forcefully in the discourse to advocate a position. Themes are key messages that the senders want to point out and don’t want the receivers to confuse with other messages. Identifying themes of DR can show what topics crisis managers can select and prepare if they employ the DR framework. Adapted from Seeger et al. (2003), Seeger and Ulmer (2001, 2002), Ulmer (1998), Ulmer and Sellnow (2002), Ulmer et al. (2007) and Reierson (2009), this literature review has synthesized eight themes of DR (see Table 1).

<table>
<thead>
<tr>
<th>Table 1 Themes of Discourse of Renewal</th>
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<tbody>
<tr>
<td><strong>Strong and trustworthy leadership</strong>: Leaders are highly visible and accessible to the media. They communicate in a transparent, open and honest manner. This communication helps to increase the impression that the crisis is being actively managed and victims are being taken care of. The leaders’ role is to direct interpretation of the crisis in a positive way, reduce the turmoil caused by the crisis and reassert order and control.</td>
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<tr>
<td><strong>Heroes emerging from the crisis</strong>: Individuals who demonstrate courage or noble qualities during crisis can be regarded as heroes. They can be the leaders, rescuers, volunteers or survivors. Heroes are role models who inspire their group members.</td>
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</table>
**Making sense of opportunity:** Sense-making is the process by which people give meaning to experience and DR usually interprets the meaning of a disaster to the stakeholders optimistically. DR tries to overcome the threat that characterizes crises and focuses on the inherent opportunities they create. For example, DR can argue that crises create room or space for organizations and communities to reemerge, re-envision or reconstitute themselves without previous constraints or historical limitations.

**Commitment to rebuild:** DR usually includes the community entities’ immediate and public statements committing themselves to rebuild. The immediate and public commitments reduce the uncertainty of the crisis event and construct the meaning in a way that reduces the harm. Once the stakeholders receive crisis management information, they are able to focus their efforts to moving beyond the actual event and developing strategies for moving forward.

**Action of rebuilding** (plan, progress and completion): Organizations need to make the action of rebuilding visible to stakeholders through media, direct observation, or participation. A major topic of DR during recovery phase should emphasize what the organization is going to do and what has been done. This communication is vital to keep the confidence and support of the stakeholders.

**Virtues and values:** In highly uncertain and stressful circumstances, DR usually draws from ethics virtues and values to determine how to respond. A virtuous and value-based response to a crisis is likely to generate support from stakeholders.

**Corrective and innovative action:** Another important topic of DR is about steps to mitigate the harm caused by the crisis or procedures to minimize the risk in the future. Communication of corrective and innovative efforts can reduce the chaos of a crisis and reassert control.

**Community and personal transformation, restructuring and change:** This theme includes long-term transformation and changes of ways of thinking. DR can introduce and discuss a different worldview or a closer relationship among individuals and communities that experience the crisis. Personal ascension and community cohesion as outcomes of a crisis could be included in DR.

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**Characteristics of DR**

Characteristics are features of an object or subject that identify it. Scholars tried to identify the characteristics of DR in order to differentiate it from other crisis communication strategies. According to Seeger et al. (2003), Seeger and Ulmer (2001, 2002), Ulmer (1998), Ulmer and Sellnow (2002), and Ulmer et al. (2007), this literature review has synthesized six characteristics of DR: being 1) immediate, transparent and
open, 2) proactive and positive, 3) prospective and future-focused, 4) provisional and strategic, 5) restorative, 6) quick resolving monetary and legal issue (Table 2).

Table 2 Characteristics of Discourse of Renewal

| Being immediate, transparent and open: | Crisis events often require rapid and decisive statement from the responsible entities. Immediate and public response to crisis can largely reduce the uncertainty created by the crisis while transparency and openness of the information can build trust, credibility and support of the stakeholders. Community sectors that employ DR usually react to a crisis rapidly and issue public statements about renewal immediately following the crisis. |
| Being proactive and positive: | The DR perspective contends that organizations that are able to frame the crisis in more optimistic terms are better able to move beyond them. In cases that implemented successful renewal, discourse was found to be advantageous in viewing obstacles as opportunities. The optimistic thinking in DR provides a positive direction toward which stakeholders can work. |
| Being prospective and future-focused: | DR seeks to describe activities related to future goals and directions. It focuses on narratives as expressions and means by which reality is created. Traditionally, post-crisis discourse has a retrospective focus because of its efforts to justify the past. DR is innovative in focusing on the future and delineating how the crisis induced exigencies can be overcome. |
| From provisional to strategic: | DR in the initial response may emerge from a more natural instinct to recover order following loss. After stepping into long-term recovery, an entity is very likely to conduct research, make plans and employ deliberate strategies to achieve its communication goal. DR can be both provisional and strategic. |
| Being restorative and dialogic: | DR is restorative for its purpose of restoring faith in a system by reconnecting with a core set of values and beliefs, facilitating healing of those directly affected by the crisis, creating a sense of security during the resolution of the crisis, and establishing a vision for the future. Restorative rhetoric involved in DR is a more generative and spontaneous dialogue that is shaped not just in response to the crisis itself, but by contextual and social dimensions that layer the crisis event and influence response to it. |
| Being quick resolving monetary and legal issue: | Crises often carry a substantial price tag associated with production slow-down, profit loss, cost of corrective action, system changes, and litigation fees and fines. Quick resolution of monetary and legal issue serves as both an objective and a premise of application of DR. The focus on bringing a timely resolution to financial and legal matters associated with the crisis distinguishes DR from traditional crisis response strategies. |
**Objectives of DR**

In the DR cases being studied, the responsible entities were reported to communicate with the public for three major objectives: 1) providing information to facilitate the stakeholders in recovery and renewal, 2) gaining compliance and cooperation of the stakeholders in recovery and renewal, 3) promoting healing in the effected organization or community (see Table 3).

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Description</th>
<th>Key words, phrases, sentences, symbols, image or actions</th>
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<tbody>
<tr>
<td>1. Inform</td>
<td>The entity uses DR to provide information to facilitate the stakeholders in recovery and renewal</td>
<td>Recovery plans, policies, guidelines, rules, procedures, progress, accomplishment and completion.</td>
</tr>
<tr>
<td>2. Persuade</td>
<td>The entity uses DR to gain compliance and cooperation of the stakeholders in recovery and renewal,</td>
<td>People-oriented, social good, best for the community, better community, proceeding the pre-disaster level</td>
</tr>
<tr>
<td>3. Comfort</td>
<td>The entity uses DR to promote healing in the effected organization or community,</td>
<td>In the honor of the dead, we are together, big love, care, concern.</td>
</tr>
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</table>

In the crises at Cole Hardwoods and Malden Mills, both companies had announced immediately after the disaster the assurance of payment and benefits of the employees (Seeger & Ulmer, 2002). The CEO of Cantor Fitzgerald after 9/11 attacked talked to employees, customers and competitors that the company would still be in business in the honor of who had passed away and explained how it was going to operate (Seeger, Ulmer, & Sellnow, 2005). In the case of Schwan’s ice cream contamination, the
company issued public statements to suggest customers who had symptoms of salmonella to see a doctor, promise to pay medical expenses and provide settlement options to the victims (Sellnow, Ulmer, & Snider, 1998).

These DR messages contained information which was essential in guiding self-resilience of affected individuals, promoted support network and expressed good-wills of the responsible entity. Communication efforts of these messages aimed to ensure the public awareness of and public agreement on the recovery procedures taken by the responsible entity and provide emotional support to the victims.

Conditions of renewal discourse

Ulmer, Seeger and Sellnow (2007) contended that certain crisis types, positive stakeholder relationships and faith in corrective action create the opportunity to enact DR. First, they argued that massively destructive natural disasters often create a context and a physical space where renewal can occur. Also, they believed that stakeholders that have a positive relationship with the organization are more likely to support renewal than those who don’t. Yet some crisis events may create goodwill for stakeholders to cooperate with the organization even if its pre-event reputation was not particularly positive (Seeger, Ulmer, Novak, & Sellnow, 2005). Third, commitment of the organization and observable change followed by the renewal discourse are believed to be essential to keep stakeholders supportive.
Effectiveness evaluation of DR

Importance of evaluating DR

Evaluation is a “critical assessment in as objective a manner as possible, of the degree to which a service or its component parts fulfils stated goals” (St Leger & Walsworth-Bell, 1999, p.116). Evaluation employed in PR campaigns refers to the process of gathering and analyzing data in such a way that the resulting information can be used to determine whether communication is effectively carrying out planned activities, and the extent to which it is achieving its anticipated results. It is a learning tool to improve PR research, planning and programming.

A major limitation of prior studies on DR is that evaluation of the effectiveness of the new model was missing. Scholars had observed positive publicity of crisis response, greater efficiency and profitability of rebuilding which indicated that the DR model might be more useful and satisfying than traditional ones (Seeger & Ulmer, 2001). They also believed DR could motivate stakeholders to work toward realizing the future and allowed the organizations to frame the meaning of crisis in ways that ultimately lead to renewal (Seeger & Ulmer, 2002). However, little statistical evidence has been provided on the potentially positive outcomes of DR. Without evidence, it is not clear how DR relates or contributes to organization or community renewal. Thus, scientific measurement should be used.

Measurement of evaluation

Evaluation plays a significant role in demonstrating accountability and effectiveness of PR programs and campaigns (Dozier, 1990). Scholars have suggested an
array of different methods and models to evaluate PR effectiveness. Cutlip, Center and Broom’s (2000) evaluation model which is known as PII (Preparation, Implementation, Impact) proposes assessment on the adequacy of background information, the appropriateness and quality of message (Preparation); examination on the number of messages sent to the media and who received them (Implementation); evaluation of the changes in opinions, attitudes and behaviors (Impact). Macnamara’s Macro Model (1992) has similar division of categories (Inputs, Outputs and Results), but has added methodologies for each step. These two models are widely taught in the PR field, but less likely to be implied in practice since completing all the steps is costly and time-consuming.

In order to make evaluation more practical and accessible, Lindenmann’s proposed yardstick model (1993) suggests first setting PR objectives and then choosing from three levels to test their effectiveness. Level 1 as the basic level measures public relations “outputs”—the way in which the program or campaign is presented through media placements and the likelihood of reaching the target groups. Level 2 as the intermediate level uses “out-take” measures, which judge whether or not the target audience actually received the messages and how they perceived the information (such as awareness, agreement, and perceive care and concern). Level 3 as the advanced level measures “outcomes” including opinions, attitudes, and behavioral changes. Instead of stepping from planning to results, the yardstick model allows researchers and practitioners to choose one or two levels according to their previously decided objectives as well as their time and budget.
Discourse of Renewal Evaluation model

Although using different terms (Impact, Result and Outcomes), all three models indicate an ultimate goal of PR programs and campaign: to change a public’s opinions, attitudes, and behaviors. However, it seems to be very challenging if not impossible to find proof of changes of publics’ opinions, attitudes and behavior in crisis renewal because of the emergent nature of the event. Practitioners and researchers usually have very limited time and resource to access the public during the initial stage of crisis response and collect data which can be measured as the outcomes. A new method is demanded to meet the need of renewal discourse measurement. If finding a way to learn how much the input of DR campaigns influences the publics’ perceptions and then how much the publics’ perceptions contributes to the relational outcome, researchers can conclude how effective renewal discourse is in facilitating renewal process and achieving the PR goals. To meet this need, a Discourse of Renewal Evaluation (DRE) model is proposed in the following (see Figure 1).

Research on DR in this project was taking a theoretical position which is different than previous studies. Most of the research that has been done adopted a sole organization-centered perspective and interpretation of DR’s nature and function was largely based on data collected through organizational interviews or media messages (see Ayers, 2002; Seeger & Ulmer, 2001, 2002; Seeger, Ulmer, Novak, & Sellnow, 2005; Ulmer, 2001; Ulmer & Sellnow, 2002; Ulmer et al., 2007). PR scholars (see Botan & Taylor, 2005; Taylor & Botan, 2006) have advocated the shift from an organization-centered to a public-centered perspective in planning, programming as well as analyzing
and evaluating public relations activities. They suggested that publics should be regarded as co-creators of meaning and a defining force in the co-creation of issues.

![Discourse of Renewal Evaluation Model](image)

Figure 1 The Discourse of Renewal Evaluation Model

In order to gain a comprehensive understanding the DR framework, the DRE model proposed in this project has combined the two perspectives by evaluating information collected from both sides—the senders and the receivers. That is, the intentions, objectives and self-evaluation of the responsible entity in the crisis recovery and perceptions and attitudes of the public were both examined. The DRE model has adopted the terminology in previous evaluation models (Input, Outtake and Outcome)
and aims to map the relationships among communication factors such as perceptions and relationships. In this project, the input of the process is operationalized as DR themes, characteristics and objectives; the outtake is defined as publics’ perceptions on the PR campaigns; the outcome refers to the relationship between the public and responsible entities. The following paragraphs introduce details of DR input, DR outtake and DR outcome as well as exogenous variables.

**DR Input.** Input of PR programs and activities refers to everything that is involved within the entity in the planning, production and distribution of communications messages to the target audience (The Institute of Public Relations, 2003). In this project input is particularly defined as the information being included in the PR campaigns which employed DR themes, characteristics and objectives. Literature of DR has proposed eight themes (see Table 1), six characteristics (see Table 2) and three objectives which can guide the evaluation of campaign input. Qualitative content analysis will be utilized as the analysis method.

Content analysis is a tool in the social sciences for studying messages that already exist in record. It is usually used to describe and interpret the characteristics of recorded or visual messages systematically (Frey, Botan, & Kreps, 2000) and make inferences through the characteristics (Holsti, 1969). The possible influence of DR input on the outtake—perceptions of receivers could be examined through content analysis of the themes, characteristics and objectives in campaign materials.

**DR Outtake.** Outtake of PR programs and activities focuses on how much the targeted audiences receive the messages and how much information was accepted (The
Institute of Public Relations, 2003). The DRE model includes a measurement of how target audience perceived the DR messages. DR outtake was operationalized as publics’ perceptions of disaster recovery. Three major communication variables were identified from the relevant literature that constituted publics’ perceptions: situation awareness, attitude agreement and perceived care and concern.

Situation awareness refers “a state achieved when information that is qualitatively and quantitatively determined by given configuration as suitable for assumed role is made available to stakeholder by engaging them in to appropriate information exchange patterns” (Sorathia, 2008, p.65-66). It is what people need to know to avoid being surprised (Jeannot, Kelly, & Thompson, 2003) and help people keep track of what is happening especially in a complex, dynamic environment (Moray, 2004). In crisis response, it is essential for the affected publics be aware of plans, policies and procedures of recovery so that they can make the best decisions for themselves in order to achieve renewal. Accordingly, increasing situation awareness of the public is usually one of the major goals of crisis response.

Agreement is a key variable usually being included in attitude measurement (Van Mulken, Burgers, & Van der Plas, 2011). It is the harmony or accordace in people’s beliefs and opinions. In this project, agreement especially refers to publics’ attitudes toward crisis recovery and focus on whether they agree with the position taken in the responsible entities’ utterance or not. If publics agree with plans, policies and procedures in disaster recovery, it is very likely that they would generate positive cognitive appraisal and emotional appreciation toward the responsible entity. On contrast, publics’
disagreement with plans, policies and procedures would affect how they appraise the responsible entity’s renewal efforts both cognitively and emotionally. Therefore, attitude agreement would play a constitutionally recognized role for the relationship between the public and the responsible entity.

Care and concern is usually communicated through a variety of caring behavior, such as empathizing, listening, reassuring, reciprocity, affect, and comforting (Fisher, 2010). It has been considered as an important relational resource, particularly because it is predicting psychological and physical well-being (Barrera, 1988; Michalak, Wilkinson, Hood, Dowrick, & Wilkinson, 2003). Perceived care and concern can serve as a buffer against stressful situations, especially when situations are believed as beyond a person’s control (Cohen, 1988). It is critical for responsible entity to convey care and concern to the effected publics in crisis response and recovery. How publics perceived care and concern from the responsible entity, therefore, is included as one of the outtake variables in this project.

**DR Outcome.** The nature of PR practice determines the ultimate outcome of PR campaigns as the relationship between the public and the entity. Fostering quality relationships was regarded as the primary value of public relations (Jo, 2006) especially in the area of crisis management (Coombs, 2000). A number of studies have suggested the relational components in measurement of relationship. Huang’s (1997) isolated four key relational features: satisfaction, trust, control mutuality, and commitment. Similarly, Ledingham (et al., 1997) suggested that the concepts of openness, trust, involvement, investment, and commitment might represent the dimensions of the outcome of public
relations. In this project, three most applicable and useful dimensions were selected to measure relationship including satisfaction, trust and support.

Satisfaction has been identified among outcome criteria that comprise public relationships (Hon & Grunig, 1999), and has been considered a major positive outcome of public relations practice (Ledingham & Bruning, 2000). Satisfaction refers to “the extent to which one party feels favorably toward the other because positive expectations about the relationship are reinforced” (Hon & Grunig, 1999, p.3). It could serve as a major indicator of function of DR and requires careful investigation.

Trust can be described as “a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another” (Rousseau, Sitkin, Burt, & Camerer, 1998, p. 395). The concept of trust entails conditions of risk and interdependence (Hertzum, Andersen, Andersen, & Hansen, 2002); that is, taking the risk that the other person may act against one’s interests purposely or unintentionally. Trust enables individuals to make decisions and take action in the absence of complete knowledge of an issue or a situation. In a situation of crisis recovery which contains a lot of uncertainty, it is critical for the responsible entity to gain trust from publics so that publics may take the same position and collaborate with the entity. In this study, trust serves as a major indicator of DR outcome and will be careful examined.

Support has been well studied in the domain of public opinion (Althaus & Coe, 2011) and public relations (Kang & Yang, 2009). It is a cognitive commitment that one party believes and feels that the other party is worth spending time and energy to assist. It involves the intention of public members to provide time, donation, and assistance to the
reconstruction led by the responsible entity. The responsible entity should promote support in its PR campaigns in order to evoke cooperation in crisis recovery. Support is therefore the third indicator of DR outcome proposed in the model.

**Exogenous variables.** Demographic factors were found to be influential in media use (Katy, 2007), agency-client relationship (Ewing, Pinto, & Soutar, 2001), and consumer information acquisition (Schaninger & Scigliimpaglia, 1981). It is interesting to include demographic factors in the model to see whether they are influential to the relationship between the public and the responsible entity in crisis recovery. Additionally, disaster recovery usually involves compensations and support from the responsible entity to the affected individuals. In the aftermath of a natural disaster, the responsible entity may offer grants, techniques and knowledge for the victims in their individual recovery. For those victims who receive support from the responsible entity, it is possible for them to attribute the outcome of personal recovery to the external assistant and therefore generate positive relationship with the responsible entity. Thus, it is compelling to learn whether individual recovery outcome may affect the relational outcome of the PR campaigns. Accordingly, personal recovery conditions (including physical, financial and family relational recovery conditions) are included as exogenous variables in the model.

**Risk Communication in Disaster Renewal**

Risk communication, though is not the main domain of this study, is usually one of the components of disaster recovery and renewal. Communities can hardly recover and renew from a disaster without a process of increasing importance in protecting the residents’ safety and health. The World Health Organization defines risk communication
as the interactive process of exchange of information and opinions on risk in order to better cope with it. A widely used strategy in risk communication is fear appeal since it is effective in increasing ad interest, involvement, recall, and persuasiveness (LaTour, Snipes, & Bliss, 1996) and can motivate people to help themselves (Bagozzi & Moore, 1994).

Some scholars contended that effective risk communication should be decision relevant, two-way, and interactive (Atman, Bostrom, Fischhoff, & Morgan, 1994) which can promote trust, awareness, understanding, and motivation to act (Kasperson, 1992). Rowan and her colleagues (2003) had proposed a CAUSE model with five goals of risk communication as establishing Credibility, creating Awareness, deepening Understanding, gaining agreement on Solutions and moving to Enactment.

DR may involve risk communication in enactment of a theme—corrective and innovative action in disaster renewal. Assessment of the potential risk usually serves as a foundation of the organizational/administrative change. A responsible entity needs to communicate the risk, ensure understanding and agreement and then move to enactment of new laws/rules/procedures to reduce the risk during disaster recovery. It is interesting to know how DR as a crisis communication framework intertwines with risk communication perspectives.

**Communication in Emergency Management**

Catastrophic natural disasters usually prompt a response that included all public and private sectors in the community and creates imperatives for dialogues about effective emergency management. Communication between sectors is a key element
during the initial response as well as the recovery phase. Lack of communication among different levels of government and private sectors was identified as one of the issues that influenced the effectiveness of emergency management in Hurricane Katrina (The White House, 2006).

Additionally, communicating risk and crisis information to the public is essential to promote emergency preparedness and cooperation in the community. Emergency managers largely depend on media to update what is happening and what the public is expected to do. For instance, the US government established an Emergency Alert System (EAS) as a national public warning system that requires media agents such as TV and radio broadcasters to offer to the different levels of government the communications capability to address the American public during an emergency (Federal Communications Commission).

How to communicate effectively to the public is the next question facing the emergency managers. DR theory offers an alternative perspective which emphasizes the opportunity embedded in the disaster and provides a series of strategies about what to say and how to say from the initial response to the recovery phase. If being found useful in this project, DR theory could be considered as one of the communication frameworks for emergency managers to implement in their emergency communication system.

Research Questions

Cultural and policy context

When a devastating natural disaster strikes, many communities may be affected in the region and the cost of reconstruction can go beyond what the private sector can
afford. Governmental assistance is needed in such a case to provide equipment, supplies, facilities, personnel, and technical assistance in initial response and loans or grants in community recovery. In order to help communities recover from a major disaster, local government bodies usually play a leadership role in guiding the reconstruction, and reassure the residents that life will be normal again. Communication is no doubt a key element in management of community recovery. How local government bodies advocate recovery policies, plans and execution in order to gain support from the community is worth careful scrutiny.

In the following paragraphs, crisis communication policies and practice were reviewed particularly in the context of the People’s Republic of China (China for short). China is selected as the context of this study since Chinese governments are believed to employ public relations strategies actively in disaster recovery (Chen, 2009) which can provide rich information for understanding the nature and effectiveness of the public relations strategy.

In the 1950s, Chinese governments had an authoritarian media system adapted from that of the former Soviet Union; all media in China was owned by the government (Siebert, Peterson, & Schramm, 1963). Information sent out to the public was harshly censored by the propaganda department in the government. Crisis communication was also under the full control of governments and response to disasters and crises was largely carried by the propaganda department.

In 1954, the Chinese Central government propaganda department had specified principles for crisis communication: 1) disaster reports could not be more than the reports
on economic development; 2) disaster reports should focus on active response, conquering disaster, and agricultural harvest; 3) the scope of the reports should be limited in the areas which have minor losses easy to recover; 4) there should not be comprehensive reports on the disaster and no details about the losses (Dai, 1983). In 1956, because the political situation was harsh, the government asked the media either to report only positive information about disasters or to keep silent on all of the natural and man-made emergencies (Dai, 1983). According to these policies, when disasters and crises occurred, propaganda agents and media would keep silent, deny the existence of the crises, deceive the public about the extent of damages or manipulate the information made available about rescue and recovery.

The Chinese Communist Party (CCP) successfully united the whole country and generated national loyalty before 1978. Yet, great changes have taken place in the Chinese social and media policies as well as the nature of propaganda after China began its social and economic reform. In 1992 China started to promote the marketization of its media industry (Zhao, 1998). In this reform, the Chinese government remained ownership of the major media organizations, but requested all media to operate in the market-oriented environment (Zhang & Fleming, 2005). For the sake of economic survival, Chinese media organizations have to fulfill the need of the social stakeholders in order to generate adequate advertising and sales revenues (Zhang & Fleming, 2005). Under these circumstances, censorship from the Chinese government is no longer the only factor influencing news reporting, and governmental media policies have been adjusted accordingly.
A milestone of disaster and crisis communication in China was in 2003 when Severe Acute Respiratory Syndrome (SARS) spread out from a southern city in China to most of the major provinces and at the same time to 37 other countries. The Chinese central government was suddenly forced to stand at the center of the global stage dealing with the crisis. The ability of the Chinese government to communicate effectively with its stakeholders within and outside its borders came under world scrutiny. Unfortunately, the Chinese government stuck to its static crisis communication policies and masked and manipulated information about the epidemic. As a result its initial crisis communication ended in a fiasco and public outrage aroused by the SARS event got out of control within and across borders. Under pressure from both domestic and international communities, the Chinese central government was compelled to reconsider its crisis response strategies and put forth efforts to generate more effective crisis communication.

In 2004, the Chinese government enacted a new information law, *Policy of Government Information Transparency* (Wang, 2004), which states that any individual or group that attempts to cover up information of crises and disasters will face legal punishment. Based on this policy, government departments are obligated to respond to media in times of crises. This law provided the legal basis for more open and transparent media practices (Fan, 2008). Since then public relations became institutionalized in the Chinese political system and Chinese governments started to establish “spokesperson” system, build crisis communication procedures and acknowledge the strategic importance of public relations especially in crisis management (Chen, 2009). It is compelling to
know how the Chinese government bodies would function under the newly-formed governmental public relations system.

**Introduction of the case**

This project analyzes and reviews the communication campaigns launched by Chinese local governments (including province, city and county governments) after the Wenchuan earthquake struck on May 12, 2008. The earthquake measured 8.0 on the Richter scale and hit 39 counties in Sichuan Province, the mainland of China. It killed 87,000 people and injured nearly 380,000 (Xinhuanet, 2008). This earthquake, the most devastating disaster since the new China was founded, caused damages exceeding $190 billion and left 5 million people homeless (AFP, May 16, 2008). It caused widespread damage to millions of homes and basic infrastructure, including schools, hospitals, roads, electricity and the water system.

After the earthquake, the Chinese State Council decided to assist the damaged communities in rebuilding their homes and basic infrastructure. A group of governmental agencies led by the National Development and Reform Committee (NDRA), the People’s Government of Sichuan Province and the Ministry of Housing and Urban-Rural Development (MOHURD) made plans for material reconstruction and social restoration. Survivors were promised new homes within three years. New jobs would be created for the survivors; taxes were reduced or waived; children were to go back to school in safe buildings; individuals who lost spouses were encouraged to remarry and families that had lost their only child were allowed to give birth again.
Three years after the earthquake, in May 2011, the Chinese government announced that main tasks of Wenchuan Post-disaster Restoration and Reconstruction (WPDRR) had been fundamentally completed (Xinhuanet, May 9, 2011). More than 2,200,000 households had been rebuilt; nearly 3000 schools were reconstructed; over 1,000 new healthcare facilities started to provide services; 2,440 factories were restored to full working order (Xinhuanet, May 9, 2011). According to Prime Minister Wen, Jiabao, the level of economic and social development of basic production and living conditions in the damaged communities have significantly exceeded the pre-disaster level and reconstruction projects have achieved a decisive victory (Xinhuanet, May 9, 2011). The governments reported five major improvements in the disaster-affected communities including better housing conditions for survivors, more quake-proof public infrastructure, increased numbers of public facilities, progress in the revitalized industries in the area and a stronger community spirit (Xinhuanet, May 9, 2011).

**Introduction of research questions**

The WPDRR plans, progress and completion were extensively communicated to the general public and disaster-hit communities through the government-owned mass media. A series of national public relations campaigns were launched immediately after the disaster and set the tone for WPDRR. During the first three days of the rescue and immediate recovery operations the Chinese Central government required that all government-owned media stop all other regular programs and report only information about the earthquake and rescue work. During the long-term recovery period media news, pamphlets and community meetings about recovery plans were disseminated in a
frequent, adequate and open manner. Crisis communication in the Wenchuan earthquake recovery operation was believed to turn a grave danger of a chaos into a rare opportunity for community remodeling and improvement (Chen, 2009). This study of recovery communication campaigns provides a chance to explore the first research question of this study:

**RQ1.** Can the case of PR campaigns of WPDRR launched by the Chinese government be identified as an application of DR?

Particularly, this project explores whether DR themes and DR characteristics could be identified in the PR campaigns of WPDRR. Answers to this question will extend the DR framework to a new cultural context. The second major goal of this project is to obtain scientific evidence to test the effectiveness of DR. This evidence will not only contribute to our theoretical understanding of the interaction between DR and renewal outcomes, but also can benefit practical decision-making for future application of the framework. Therefore, this project asks:

**RQ2** How effective were the PR campaigns of WPDRR launched by the Chinese government?

Reierson, Sellnow, and Ulmer (2009) warned about complexities of crisis renewal over time. For long-term communication campaigns which involve different levels of government bodies and media agents it is very important to ensure the comprehensiveness, clarity and consistency of the goals, policies and strategies being employed. An ambiguity, discrepancy or conflict in the communication campaign may affect the outcomes of the communication efforts. Based on a pilot study conducted in
summer 2011 (detailed information disclosed in next chapter), researcher had observed successful material renewal in the selected community and less successful local administrative renewal among the observed residents.

In the two-week observation, the observed residents were found to have high level of satisfaction, trust and support for external helpers including country top leaders, the Central government, aid provinces and cities, volunteers and donors from all over the country. The observed residents, however, expressed less satisfaction with, trust in and support for the renewal efforts made by local governments (province, city and county). These remarks contradicted government documents which show that 70% of the reconstruction achievement was contributed by local governments. This is a conflict worth examining since it offers a chance to learn about communication obstacles to disaster renewal. If the renewal outcomes differ between local governments and external helpers, this project third question is how much communication contributed to this difference.

RQ3 What communication obstacles were in the renewal campaigns that obstructed the public’s relationship with local governments?

Summary and Preview

This section has reviewed the relevant literature and established the research gap. Four imperatives have led to the need for this study: 1) more research is needed to study long-term disaster recovery, 2) examination of renewal discourse theory has been restrained in Western culture and the theory needs to be extended to understand and guide application of renewal discourse in Eastern cultures such as China, 3) it is essential to test
scientifically the effectiveness of renewal discourse, and 4) there is both theoretical and practical importance to exploring how application of renewal discourse can be influenced by information obstacles. Crisis communication theories, Discourse of Renewal framework, relevant perspectives in risk communication and emergency management were illustrated, followed by introduction of the case and research questions. Next section is introducing the approaches to collect and analyze the data in order to answer the research questions.
CHAPTER THREE. METHODOLOGY

The three research questions identified in the literature seek to increase understanding of the nature and function of DR in long-term disaster recovery. The upcoming research is accomplished by examining the WPDRR case to find answers to these questions. This chapter begins with explanation of the case study as a method and moves to introduction of rationale for selecting the case. Approaches in the pilot study and the main test are then explicated. Procedures to ensure reliability and validity of the data are reported next. Finally this section concludes with a summary and preview.

The Case Study as a Method

The goal of this investigation is to determine how communication can function as a driving force for a damaged community to survive, recover and even prosper from a disaster and what informational obstacles may impede the renewal process. The case study approach was selected as the methodology due to its capacity to explore, describe, and explain the dynamics of a crisis situation. A case study refers to “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2003, p. 13). Yin (1984) identified three characteristics that support the use of case study methodology: the desire to understand complex phenomenon, the need to examine a phenomenon within a larger context, and the need to examine a variety of evidence.
Three characteristics of the present investigation match the three indicators of when a case study approach should be adopted.

**Complex social phenomena.** First, the need for the case study method arises out of the desire to understand complex social phenomenon (Yin, 1984). Communication efforts to facilitate recovery usually involve different organizations, mobilize different media sources and last across time. Design, dissemination and evaluation of the information about recovery plans and execution are complex events per se. This investigation differs from previous efforts in that it seeks to examine how a series of communication behaviors were planned, programmed and evaluated in a systematic way. It also evaluates whether governmental PR efforts helped or blocked a disaster-damaged community from recovering and growing; thus, the entire chain of events clearly qualifies as a complex social phenomenon.

**Holistic view of complex social phenomena.** Second, case studies allow investigators to retain holistic and meaningful characteristics of real life events (Yin, 1984). Time, resources and personnel are usually challenges for long-term recovery. In order to communicate the recovery efforts to the disaster-damaged community, responsible organizations need to make persistent efforts to advocate the plan and its legitimacy. The research questions for this particular study require the examination of themes, characteristics, effectiveness and obstacles of recovery campaigns. All these aspects of campaigns need to be studied as a whole. The case study method is appropriate as it allows for the examination of multi-aspect participation behavior and communication processes within the entire social phenomenon.
**Variety of evidence.** Third, the unique strength of the case study approach is its ability to deal with a full variety of evidence—documents, artifacts, interviews, and observations (Yin, 1984). This study requires examining different types of data such as interview responses, documents and survey responses. The case study approach works well to identify renewal themes, characteristics, objectives and outcomes because individual situations are defined, data are collected about the situation, and the findings will be presented in such a way that a more complete understanding can be reached regarding how governments, government-owned media and residents respond to crises and, in this case, move through the renewal process. Through analysis of a full variety of evidence this investigation will offer some rich detailed descriptions of the event and unique insights into how both crisis managers and the public view and evaluate the crisis management process.

**Rationale for Selecting the Case**

China is one of countries most affected by natural disasters. The government in China has therefore rich experience in managing natural disasters and communication campaigns are usually included in their disaster response. For example, the Chinese government had launched national-wide communication campaigns to advocate how governments had fought Yangtze River Floods in 1998 and how government responded to the Winter Storms in early 2008. While all these previous campaigns were focused on disaster relief, it was the first time for the Chinese government to plan and execute PR campaigns for long-term disaster recovery in the aftermath of the Wenchuan earthquake. This case has provided an unique opportunity to expand DR theory in long-term disaster
recovery. The following paragraphs provide detailed introduction of the Chinese
government’s efforts in helping the earthquake-hit communities recover from the
disaster.

The earthquake’s epicenter is located in Wenchuan County in Sichuan Province
and that province experienced the majority of the damages to its people’s lives, property,
structures, transportation, facilities, water conservancy, ecological environment and
ethnic culture. During the 2 minutes of the major rupture and shake, 68,636 people were
killed in Sichuan Province; about 16,000 miles of highways and 3053 bridges were
destroyed; 16 major arteries and six railways were cut off; power supply as well as
telecommunications and water supply were largely paralyzed. There were 7.79 million
houses that collapsed, and another 24.59 million were damaged. Cascading effects
included aftershocks, a landslide, debris flows and flooding. Strong aftershocks, ranging
in magnitude from 4.0-6.1, continued to hit the area even months after the main quake,
causing new causalities and damage.

According to the government documents and media reports, the Wenchuan Post-disaster
Recovery and Reconstruction (WPDRR) was planned and implemented through
a close collaboration among the State Council, local governments, aid provinces and
cities and national donors and volunteers. The State Council played an essential role in
structuring plans, making regulations and promoting cooperation nationally. The local
governments had to make detailed plans, measures, mobilize and deploy personnel and
resources and manage conflicts that emerged during the reconstruction. Aid provinces
and cities were largely engaged in providing financial aids, equipment and personnel, in
specific operations and construction projects. National donors and volunteers helped collect funds and supplies and provided services in material and psychological recovery. This section introduces WPDRR efforts made by the central government, local governments, aid provinces and cities, and national donors and volunteers. Data reported at following was from government documents and media reports.

**The State Council**

Ten days after the earthquake first struck, the State Council met and decided to establish a fund for post-earthquake recovery and reconstruction. They proposed a 70 billion RMB (about 11 billion US dollars) budget from central government revenue and expenditure fund. On the same day, in the 13th State Council Earthquake Rescue-and-Relief Headquarters meeting Premier Wen Jiabao instructed that post-quake reconstruction must be planned and implemented as soon as possible. Then the Post-quake Reconstruction Planning Taskforce was set up.

The taskforce was headed by Mr. Zhang Ping, Chairman of the National Development and Reform Commission, and included Mr. Jiang Jufeng, governor of Sichuan Province and Mr. Jiang Weixin, Minister of Housing and Urban-Rural Development as deputies, with representatives from disaster-affected provinces and other State Council departments as members. Two missions were assigned to the taskforce; to draft an overall post-quake reconstruction plan and a number of special reconstruction plans in 3 months, and to study and formulate policy measures to support and guarantee post-quake reconstruction. The National Experts Committee for Wenchuan Earthquake
was established on the afternoon of May 21 to provide the scientific guidance for post-quake reconstruction planning and implementation.

On May 26, the Politburo of the CPC Central Committee proposed a Paring Assistance Plan in WPDRR, which recruited provinces and cities to provide one-on-one support to the worst-hit counties in disaster-stricken areas. On June 6, the State Council issued the National Post-Quake Reconstruction Working Plan, which includes a master plan and 9 specialized plans, i.e. the plans on town systems, on rural construction, on urban and rural housing development, on infrastructure construction, on construction of public service facilities, on productivity layout and industrial readjustment, on the market service system, on disaster prevention and relief, on ecological recovery and on land use. The State Council issued a Regulation on WPDRR on June 8 which provided legal foundation for post-disaster reconstruction and specifies three objectives: damage assessment, plan-drafting and policy measures.

The State Council promulgated on June 11 the Paring Assistance Plan in WPDRR, which identifies 19 provinces and cities as the worst-hit and provides one-on-one support, to those in Sichuan, Gansu and Sha'anxi Province. On June 29, the State Council released opinions on “Policies and Measures to Support WPDRR, ” which states policies measures in 9 categories, i.e. fiscal affairs, taxes and fees, land-use, and employment etc. In addition, other supporting policies and measures are being studied and drafted. On June 12, the Xinhua News Agency disseminated instructions of the Ministries of Civil Affairs, Central Treasury, and Housing and Urban-Rural Development
on disaster-damaged rural housing reconstruction, which announced it would offer a
10,000 RMB (over 1,500 US dollars) reconstruction grant for each household.

On June 30 the State Council gave advice to all government agents to urge
support for WPDRR. Besides confirming that there would be a central government fund
for WPDRR and financial grants to rebuild individual housing, this document published
newly enacted policies of reducing tax and administrative fees in the disaster areas,
providing tax benefits for the donors and other beneficial financial services provided by
the state-owned banks. On July 3, the State Council published the Guidelines on WPDRR
Work after the Wenchuan Earthquake, which is an important document that provided
clear requirements to define the guidelines, as well as basic principles and major tasks for
post-quake reconstruction planning. On August 26, the State Council approved and made
effective the General Plan of WPDRR which proposed a goal of recovering in about three
years. The general objective of the plan is that “every family has a house to live in, every
household has at least one employed person, every individual has social security, public
facilities are advanced, the economy is developing, and the ecology is improved.” This
general objective leads WPDRR and also serves as an important guidepost to monitor the
results of reconstruction. Since then, WPDRR commenced its full operation.

On March 2009, the State Council proposed speeding the three-year WPDRR to
complete it in two years. It provided frequent inspection, encouragement, policy and
material support to the disaster areas. Within three years after the earthquake Premier
Wen visited the disaster-hit area 10 times and on May 9, 2011, while visiting Dujiangyan
Sichuan, he announced a decisive achievement of WPDRR based on his investigation.
According to Wen’s report, the disaster area fundamentally met the goal of every family has a house to live in, every household has at least one employed person, every individual has social security, public facilities are advanced, the economy is developing, and the ecology is improved.” He said he had witnessed a tremendous change of the disaster areas from a heap of rubble to model cities and villages.

**The Provincial Government of Sichuan**

Urgent recovery of transportation, telecommunication, power and water supply started on the same day the disaster erupted, on the afternoon of May 12, 2008. On June 16, the provincial government decided to pair none/slightly-hit areas with the worst-hit areas and recruited 13 cities and counties to provide one-on-one aid to the 13 worst-hit counties. On July 10, promotion policies for reconstruction and recovery were issued by the Provincial Government, including 10 aspects such as tax, finance, land use, industry management, and employment and so on.

At the early stage of recovery, the major tasks included repair of the basic infrastructure and building temporary shelters for the homeless. Until July 12, there were more than 1.68 million temporary shelter units completed, 76% of those needed. On that day, the worst-hit factory in Beichuan County, China United Cement Beichuan Co. Ltd., resumed production. Until then, 80% of the worst-hit factories had resumed production. On July 13, a general objective to “Basically recover in three years, develop and thrive in five years, and build a well-off society in an all-round way in ten years” was formulated in the Fifth Plenary Session of the 9th Sichuan Committee of the Communist Party of China (CPC). One month later, the top leaders of the Provincial Government urged
speeding up WPDRR and grasp the chance to become the economic center of Western China.

On July 25, the Reproduce Policy for Families That Lost Child in Wenchuan Earthquake was formulated by the Province People's Congress Standing Committee and the families that lost their only child in the Wenchuan earthquake was provided with free reproduction service starting on July 30. Until August 6, the local governments built more than 4 million temporary shelter units and basically met the need. On August 14, the provincial government organized investment promotion activities for WPDRR under the principle of “acknowledgement of the aid, sustainable development of the industry, promotion of investment, acceleration of rebuilding and development.” A working plan of housing rebuilding in cities and towns was approved and made effective in the 15th meeting held by the Provincial Government on September 16. On September 27 highway reconstruction from Dujiangyan to Yingxiu was commenced, which indicated the full operation of WPDRR at the province level. From October 7 to 8, the Provincial Government invited the heads of the disaster-affected cities to a meeting to plan for reconstruction and recovery.

On March 27, 2009, the Provincial Government held a meeting to adjust its WPDRR plan in order to correspond to the call of the State Council—complete the three-year WPDRR task in two years. On September 27, 2010, Governor Jiang Jufeng reported 85.2% of the projects in WPDRR plan were finished and 85.6% of the financial investment was completed. In August 2011, the Provincial Government distributed a document that required all projects of WPDRR to be completed at the end of September.
2011. In early 2012, the government announced that the GDP of 2011 was nearly double that of 2007, and the livelihood of the disaster-hit area had completely exceeded its pre-disaster level.

**The City Government of Mianyang**

Mianyang is the second largest city in Sichuan Province with a population of 5.5 million people. The earthquake’s epicenter was located in Mianyang, and all Sichuan’s cities and counties were somehow hit by the earthquake, leaving 21,963 people dead, 7,795 missing and 174,000 injured. About 2.4 million houses collapsed and about 6.3 million were damaged. More than 2.5 million people, 45% of the population in the area, became homeless. Public facilities and basic infrastructure were severely damaged. 6,563 miles of road, 1,503 bridges and 6 tunnels were destroyed. Roads connecting 48 towns and 1,111 villages were blocked by falling rocks and damaged vehicles. Telecommunication was completely unavailable after the disaster. The whole area lost power and water for 4 days.

After the earthquake, the Mianyang government set up a taskforce to start road repair. On May 13, the Deputy Mayor reported the completion of repairs on Anbei Road so that disaster relief equipments and responders were able to get into the county town of Beichuan. Repair and recovery of telecommunications, power and water supply was carried on while rescue work was going on. Within 100 days after the disaster, the City Government focused on transferring the wounded to healthcare facilities in other provinces for better services and building temporary shelters for the 2.5 million people who lost their homes. On September 3, Mayor Tan Li led a post-disaster reconstruction
working conference and distributed the tasks of reconstruction. A major instruction proposed by the Mayor is to reconstruct the city with speed and quality. The city and 9 counties all made their own post-disaster reconstruction working plans, as did 161 towns and 477 villages. These plans aimed to grasp the great chance of post-disaster reconstruction to 1) apply for transportation projects and financial investment, 2) strengthen public facilities, 3) promote development of industries, and 4) improve rural living conditions.

The city has been paired with four aid provinces that include Shandong, Liaoning, Henan and Hebei. These aid provinces and cities provided financial grants, sent engineers, technicians and workforce to Mianyang. On April 25, 2011, Major Zeng Wanming held a TV conference and reported that the GDP of the city in 2009 has increased 15.3%; the income of residents has increased 13.3% and the income of farmers has increased 15.3%; the GDP in the first quarter of 2011 increased 15.3%; 93.5% of the projects in the city WPDRR plan have been finished and 93.3% of the investment has been completed. At the end of 2011, Mianyang city had completed its WPDRR plan, which included 7,300 projects with 22 million RMB (about 3.5 million US dollars) in investments. In early 2012, the City Government announced the comprehensive success of WPDRR with some economic statistics such as the GDP in 2011 (about 120 billion RMB, 19 billion US dollars) which has increased 15.2%.

The County Government of Beichuan

Beichuan Qiang Autonomous County (Beichuan County for short) under the jurisdiction of Mianyang, had a population of 160,000 before the disaster. It was among
the most severely hit of all disaster regions by the Wenchuan earthquake. 15,645 people, or 10% of the population, died, 1,023 were missing, and 26,916 were injured. 24% of the government cadres were dead or missing and 10% were injured. 80% of the buildings collapsed. The whole population was badly affected by the disaster. 142,000 people were left homeless. Transportation, water supply, power supply, gas supply and telecommunication service were totally crippled; administration, health care and education facilitates were fully collapsed.

In the downtown of the county, population about 24,000 residents, the damage was catastrophic. The town was surrounded by mountains, and landslides buried many structures when the disaster occurred. Only about 5000 of the town’s residents crawled out of the rubble by themselves. The top leaders of the County Government survived and started to organize self rescue immediately. They organized evacuation of the civilian residents and required all the government employees and party members to stay to rescue the buried. Without any equipment, the rescuers have saved about 7000 trapped people with their bare hands.

After the earthquake, all the survivors were evacuated on the first day. On May 14, two days after the earthquake, experts for the China City Planning and Design Institute came to Beichuan County town to make an assessment of damage and risk. They concluded that the location has a large possibility of a seismic secondary disaster and is not safe for residence. The County Government decided to move the county town to a safer location. On May 19, one week after the earthquake, the government with the help of the experts started to look for a new location. From May 28 to mid-August, the
off-site reconstruction plan was reported by the County Government, through city and Provincial Government to the State Council and was approved in November, 2008. On November 7, the County Government and the construction team sent by the aid province Shandong held a kick-off ceremony for the off-site reconstruction. From December 10 to 20, the general reconstruction plan was approved by the City Government. On December 27, President Hu Jintao visited Beichuan and named the new county town “Yongchang” (forever prosperous). On June 8, 2010, construction of the new town was commenced.

Aid provinces and cities

There are 19 provinces and cities being recruited to provide one-on-one support for WPDRR including personnel, supplies, financial and technical assistant. One province or city would assist one worst-hit county in Sichuan. The pairing aid system is valid for three years to help the disaster areas meet the general goal of WPDRR. According to the one-on-one aid plan, the material work quantity should exceed 1% of the GPA of the aid province or city. Detailed procedures and strategies were negotiated between the disaster-hit counties and the aid provinces or cities. The aid provinces and cities played a crucial role in achieving the final success of WPDRR. Reconstruction of the county town of Beichuan is one of the examples.

On May 20, 2008, Shandong province became the first aid province that sent liaison personnel to Sichuan and was paired with Beichuan County for WPDRR. On May 24, Shandong Aid Command Center was established in Mianyang and the Aid Project was fully launched. On May 29, Shandong province recruited 17 cities to provide one-on-one aid to over 20 villages and towns in Beichuan County. The chief of the CPC
Shandong Committee visited the Shandong Aid Command Center in Mianyang on June 20 and announced a commitment to mobilize the entire province to aid Beichuan County. On July 25, Shandong province published Shandong Provides Pairing Aid to Beichuan Post-disaster Reconstruction Working Plan. The plan indicated Shandong would provide 10 billion RMB (about 1.6 billion US dollars) financial support, equipment, personnel and techniques to help with Beichuan reconstruction. Beichuan Middle School was the ground-breaking project launched on May 12, 2009, one year after the earthquake. On September 25, 2010, the new county town was completed and transferred to Beichuan County.

**Donors and volunteers**

Up to April 30, 2009, total donations estimates to Wenchuan earthquake relief and WPDRR at 70 billion RMB (about 11 billion US dollars) which exceed the total donations in ten year (1996-2007) and make a new record of the philanthropy in China. The donated money and materials were distributed to improve livelihood in disaster-hit area such as reconstruction of residence housing, schools, medical facilities, social welfare and other public infrastructure. There were more than 100 thousands volunteers from outside of Sichuan province came to the front line of disaster relief and reconstruction, 1 million from none disaster area in the province involved in disaster relief and reconstruction. Over 10 million volunteers provided services in logistics. These volunteers became an important power in Wenchuan disaster response.
Pilot Study

The rationale for a pilot study

A pilot study refers to a feasibility study which intends to guide the planning of a large-scale investigation (Thabane et al, 2010). In this project, researcher entered the field and did a pilot study before the main test. Four reasons necessitated the pilot study. First, the pilot study tested the feasibility of the steps that need to be taken in the main study such as determining recruitment possibility and procedures. Second, the pilot study enabled the researcher to estimate time and budget for the main study such as the length of time to fill out the survey, board and lodging expenses. Furthermore, the feasibility test was to explore human and data optimization especially for personnel and data management. Last, the pilot study was conducted to develop and test adequacy of survey instruments.

Procedures and findings

In summer 2011, researcher did pilot interviews with some officials, collected the first few government documents and observed the renewal community. In January 2012, researcher did a pilot survey in the select community. These efforts were essential for researcher to witness the material and social renewal of the disaster-damaged community and detect potential problem, puzzle or issue that may be related to communication.

Interview

In the pilot study researcher interviewed the public information officers from the Provincial Government of Sichuan and the City Government of Mianyang with semi-structured questions. The first question to start the conversation was “where were you
when the earthquake struck?” Respondents took most of the time talking about their experience in the events and the actions they took in the campaigns as officials. Researchers asked probing questions such as “what did you do” “how did you feel” “how did that work” or “can you tell me more about that.” This practice taught the researcher about how much time and efforts are needed to earn the trust of Chinese officials so that they will disclose information. And the researcher learned how to keep the mind open to answers different from what has been expected.

Once comfortable with the integrity of the interview project, the government officials started to talk about their experience, feeling and reflective thoughts about WPDRR campaigns. They mentioned how they viewed this recovery as an opportunity for community growth and how they conveyed this idea to the residents. They also argued the importance of communication in WPDRR. This information inferred their application of DR and the possible outcome of DR. Additionally, one of the interviewed officials had disclosed a few words about a potential puzzle in the WPDRR and told researcher that his department received complaints from the community about how WPDRR was being proceeded. All this information collected in the pilot study legitimated the main test and gave direction to further investigation.

**Document collection**

In the pilot study, there were two important documents collected from the Provincial Government and three from the City Government. Though these few documents didn’t cover all campaign information, they confirmed researcher the
application of strategic communication in WPDRR. These documents also served as a thread for researcher to develop further interview questions and the survey questionnaire.

**Survey**

In January 2012, when researcher entered the field for the second time, a pilot survey was conducted before the main survey. The purpose of the pilot survey is to refine the questionnaire and train the interviewers. Since community is speaking a dialectic mandarin, it is very important to adjust the wording which was written in official mandarin to the way that can be easily understood by the participants. Fifteen residents were randomly selected besides the real survey participants. During the pilot survey, interviewers recorded all the problematic wording, sentences and discussed them in the meeting afterwards. Challenges that encountered by the interviewers in the pilot survey were also discussed for solutions. For example, interviewers found that some of the interviewees got bored during 30-minute interview and complained that they were not used to answering as many questions as this survey. Principle researcher designed few sentences for all the interviewers to use during the main survey in order to keep the flow of the conversation and encourage participants to complete the survey. One sentence for example is “we really appreciate your time, your answers are very important to us.”

**Limitations**

The pilot study in this project has a number of limitations. First, it is very possible for researcher to make inaccurate predictions or assumptions on the basis of pilot data. Though there were signs of the Chinese government utilizing DR framework, individual narratives about how successful the application was, and disclosure of possible barriers in
the campaigns, they were not guaranteed answers to the research questions because they do not have a scientific foundation and are based on small numbers.

Second, completing a pilot study successfully was not a guarantee of the success of the full-scale survey. Problems may not become obvious until the larger scale study is conducted. Furthermore, there was one concern of the researcher about possible contamination of the survey data. Since the survey questionnaire had been edited according the issues found in the pilot survey, researcher decided not to include the pilot data in the main results. Participants in the pilot survey were excluded in the main study.

Main Test

The main test of this project contains two major steps; one is data collection and another is data coding and analysis. Data collection for the main test was taking two months from January to February in 2012 right after the pilot survey. Data coding and analysis was conducted in March 2012. Data collection focused on two aspects of communication campaigns for disaster recovery: the intention of the government officials and media practitioners, and the perception and attitude of the community residents. This approach adopted the co-creational perspective which argues that organization and publics are both defining forces in the co-creation of issues and both parties should be studied in order to evaluate communication between them (Botan & Taylor, 2005).

Mixed quantitative and qualitative data being collected in this study required multiple coding and analysis methods in interpreting the meaning of the data. Two methods—qualitative content analysis and statistical analysis were utilized in coding and analyzing data from interviews, document collection and survey. The rationale of the mixed
Mixed methods in data collection

Mixed-method refers to a method that focuses on collecting and mixing both quantitative and qualitative data in a single study or series of studies (Creswell & Plano Clark, 2006). To best answer research questions, this project uses both qualitative data collected by in-depth interviews and from documents and quantitative data collected through a community survey (see Table 4). All methods have their strengths and weaknesses; this combination is the best for answering the proposed research questions.

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<th>In-depth interview</th>
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<td>RQ1</td>
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<tr>
<td>RQ2</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>RQ3</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**RQ1.** In-depth interviews and documents of the events were used together to collect data to answer the first research question. First, in-depth interviews with campaign practitioners would allow exploration of participants’ perceptions in planning themes and objectives, and interpretation of characteristics of renewal discourse. Since no previous research appears to have been conducted on this matter this study starts by gathering as much data as possible and hearing the Chinese practitioners’ voice in communication campaigns. Chinese officials and media chief editors were encouraged to tell about their experiences in the events and decision-making processes. This approach provided much
detailed information about the Wenchuan recovery campaigns which has never been documented.

Documents of the events were also collected to help uncover how information had been put together and how the government delivered the messages to community residents through government-owned media. Message is a key element of communication process and determines whether the meaning the organization wants to convey is appropriately encoded and transmitted. The first research question on what information and how the information was communicated to the community residents is approached through content analysis of the campaign materials and media reports. This second method would also help to check validity of qualitative data gathered through in-depth interviews.

RQ2. Content analysis on the interview transcripts and campaigns documents can disclose how practitioners think about the PR campaigns outcomes. On the other hand, the survey with community residents was conducted in hopes of gathering information about how publics perceived and evaluated information disseminated by the PR campaigns. This method enabled evaluation of publics’ perceptions such as awareness, agreement, and perceived care and concern, as well as the relational outcome. Data gathered from the survey can also examine the influence of publics’ perception on the relational outcome and therefore a conclusion can be drawn about how DR can contribute to the relationship between the public and the governments. Exogenous variables including demographic information and personal recovery condition (including physical,
financial and family relational recovery conditions) were also included in the survey examination.

**RQ3.** The discrepancy between the communication plan and outcomes of the different levels of government bodies was examined by analyzing survey data. Community residents were asked to evaluate their perceptions of and relationship with local governments and external helpers respectively. Data collected from different items in the questionnaire can be compared with each other to identify potential problems of the campaigns. For example, indicators for relational outcome was measured by subscales of satisfaction, trust and support for the three levels of local government as well as external helpers (including the country’s leaders, the central government, volunteers, and donators). If there is a significant difference between outcome variables of local governments and external helpers, it is essential to further explore whether there are communication obstacles to impede the effectiveness of the campaign.

If the problem being confirmed, information from interviews with the government officials and media chief editors can further offer explanation of the cause of the gap between the campaign plan and outcomes. Government officials from three levels of government, chief editors from three levels of local media were interviewed to disclose their potentially different objectives, strategies, communication resources and execution process. Data from these interviews are vital to inform the complexity of the renewal campaigns when multiple agents are involved and explain how communication obstacles could be created and mediate the impact of governmental PR campaigns.
In-depth interview

Rationale of in-depth interview

In-depth interviews are among the most widely used qualitative methods in communication research (Bogdan & Taylor, 1975; Mishler, 1986) and also among the most effective techniques to collect data from crisis renewal cases (see Seeger & Ulmer, 2001, 2002; Seeger, Ulmer, Novak, & Sellnow, 2005; Ulmer, 2001; Ulmer, Seeger, & Sellnow, 2007; Ulmer & Sellnow, 2002; Ulmer et al., 2007). It is a special type of interview in which a researcher and a participant meet one-on-one for a substantial period of time (30 minutes to up to two hours).

This method was employed in this project because it would provide the opportunity to learn what is difficult to be seen or explored in alternative ways. For example, in-depth interview is especially useful to learn the decision making process of government officials and media chief editors in planning the campaigns. Data collected through in-depth interviews could provide rich information and uncover central themes of communication campaigns. Participants’ meanings and explanations of plans and strategies can be best retrieved through in-depth interview. Another major benefit of in-depth interview is that it allowed researcher to direct the flow of the interview especially when there are adjustments needed (Ellis & Bochner, 1992; Langellier, 1989). The interviewer had the flexibility to frame the next question to dig into the earlier answer or to redirect participants’ attention to an area more relevant to their inquiry (Babbie, 1989).

Interview questions in this project were semi-structured; that is, specific questions are facilitated with discussions about specific experiences, phenomena, and general lived
experiences (Patton, 1990). The semi-structured interview was selected for this research for three reasons. First, it uses a list of questions for participants to answer directly related to the research purpose of this project. Second, semi-structured interviews enable comparisons of answers across participants, such as among public information officers from different levels of governments, while ensuring flexible answers and allowing interviewers to ask follow-up questions when needed. This technique can also minimize the obstacles of interviewing, such as uncomfortable formal settings for participants, and general passive participation in the interview.

Limitations

One major limitation of in-depth semi-structured interviews is that they require more time and patience to collect needed data than structured interviews. Some interviews with government officials and media chief editors last as long as two hours. After the interviews, data collected through semi-structured interviews required more time, effort and special techniques to analyze than structured ones would have (Patton, 1990). In addition, in-depth semi-structured interviews may not stimulate respondents’ active thinking as much as the unstructured interviews about the same questions. Researcher has overcome these difficulties by displaying great patience in the interaction with participants, asking probe questions and spent adequate time in data coding and analysis.

Participants and recruitment procedures

There were three government officials and five media chief editors being recruited in the in-depth interview (see Table 5). These participants were selected
because they were the key personnel in planning and executing communication campaigns in WPDRR. The first interview subject was contacted in the pilot study through contact information retrieved from the government website. The researcher called the News Center of the Provincial Government of Sichuan and was referred to the supervisor of Media Relations Department. After building the connection with this official in the Provincial Government, the researcher asked for a referral to the public information officer in the City Government of Mianyang. After building the connection with the official in the City Government, the researcher asked for a referral to the public information officer in the County Government of Beichuan.

Table 5 Interview Subjects

<table>
<thead>
<tr>
<th>Sichuan Province</th>
<th>Public Information Officers</th>
<th>Media Chief Editors</th>
</tr>
</thead>
</table>
|                  | Supervisor of Media Relations Department | 1. Associate Chair of Political News Department in Sichuan Daily  
2. Chair of News Center in Sichuan TV Network                                      |
| Mianyang City    | Former Supervisor of Media Relations Department (promoted to a position in a different department in January 2012) | 1. Associate Chief Editor in Mianyang Daily  
2. Chief Editor in Mianyang TV Network                                                |
| Beichuan County  | Chair of the News Center          | Chief Editor in Beichuan TV Station                                                 |

Researcher found that the lower the level of government the official comes from, the more defensive they were during the initial contact. They explained later that the defensive attitude was aroused because they had been overworking and agreeing to an
interview by the researcher added even more work while they were pre-occupied with reconstruction campaigns. They felt better when the main test took place half a year later after reconstruction work was completed. It also took time to reduce the defensiveness caused by the sensitive status of the researcher. The officials explained that they were afraid that the researcher, though being a native Chinese, coming from an American university would take an adversarial position in evaluating the renewal campaigns. Interactions were smoother after personal connection and trust was built with the officials, and they would refer the researcher to the media chief editors to join the study.

The media chief editors were alerted to the researcher’s status in the initial contacts and refused to consent to interviews without referrals from the News Center in the government. They explained that they need permission from the government to take interviews with any person affiliated with alien countries. After the researcher gained permission and referrals from the governments, the media chief editors were willing to provide information in a free and open manner.

**Interview protocol**

In order to create proper questions for in-depth semi-structured interviews, researcher did a mock interview with a Ph.D. student who experienced the Wenchuan earthquake with some structured questions in April 2011. These questions asked specifically about his experience and insights of the recovery campaigns. Through this conversation, researcher got the sense of how to design effective questions and keep an active information flow during the interview. An interview protocol was generated after the mock interview and a list of the prepared questions can be found in Appendix 1.
Data collection

The duration of these interviews last from 30 minutes to 2 hours. Seven out of eight interviewees agreed to be audio-recorded and one interview was recorded by note-taking. Tactics were employed to reduce defensiveness and suspicions. For example, all interviews are semi-structured and informal. Researcher conducted interviews in either a neutral territory (a restaurant) or at a workplace (in an office or conference room), where it was convenient and comfortable to participants. Interview transcripts were organized into three categories including province-level interviews, city-level interviews and county-level interviews so that researcher could refer to each category when analyzing campaigns launched by different levels of local government.

Data coding and analysis

First, in-depth interviews were transcribed and partially translated from Chinese into English by the researcher. After that, researcher listened once again to the audio record to check for errors in the transcript and reviewed the translation to ensure validity.

Second, two coders familiar with the formulas of DR themes, characteristics and objectives reviewed the transcripts. The two coders marked passages in the data that reflected the themes, characteristics and objectives of DR. DR Themes were identified by thematic analysis, generally used in identifying, analyzing, and reporting themes within qualitative data (Braun & Clarke, 2006). Themes in this project were specified for 8 categories (see Table 1). In order to identify units which can be classified as DR themes, coders derived meanings from patterns such as conversation topics, vocabulary, recurring activities, symbols, feelings, or folk sayings and proverbs.
According to Owen (1984), three criteria are required to generate a theme. The first criterion is occurrence, which means that at least two parts of a report have the same thread of meaning even though the meaning may be indicated by different wording. Second is the repetition of key words, phrases, or sentences, which is an extension of the first criterion in that it is an explicitly repeated use of the same wording. According to this principle, an operational coding form was developed based on the DR theme formula (see Table 6). The third criterion is forcefulness, which refers to the underlining of words or phrases in a written report or taking notes of vocal and video recording of facial expression, inflection, volume, gestures or activities.

Table 6 DR Theme Coding Form

<table>
<thead>
<tr>
<th>Themes</th>
<th>Description</th>
<th>Key words, phrases, sentences, symbols, images or actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.Strong and trustworthy leadership</td>
<td>Leaders are highly visible and accessible to the media. They communicate in a transparent, open and honest manner. This communication helps to increase the impression that the crisis is being actively managed and victims are being taken care of.</td>
<td>Hu Jintao, Wen Jiabao, Liu Qibao, Jiang Jufeng, Tan Li, Zeng Wanming, Song Ming, Jin Dazhong, community leader, strong leadership.</td>
</tr>
<tr>
<td>2.Heroes emerging from the crisis</td>
<td>Individuals who demonstrate courage or noble qualities during crisis are regarded as heroes. They play as role models and mobilize their group members.</td>
<td>Heroes and role models, Qiu Guanghua Team, party members and cadres, the best volunteer, the best principle, the best retired teacher.</td>
</tr>
<tr>
<td>Themes</td>
<td>Description</td>
<td>Key words, phrases, sentences, symbols, images or actions</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>3.Making sense of opportunity</td>
<td>Sensemaking is the process by which people give meaning to experience and DR usually interprets the meaning of a disaster to the stakeholders in optimistic way. DR usually focuses on inherent opportunities created by a crisis.</td>
<td>&quot;Every unlimited history disaster is paid for the advance of the history&quot; (Engels Friedrich), “Tribulations will revitalize a nation” (Wen Jiabao), metaphor of phoenix, turning disaster into renewal, grasp the opportunity, take the chance.</td>
</tr>
<tr>
<td>4.Commitment to rebuild</td>
<td>DR usually includes the organizations’ immediate and public statements committing themselves to rebuild.</td>
<td>“Rebuild a new Beichuan” (Wen Jiabao), enactment of policies, instructions, plans, regulations of reconstruction.</td>
</tr>
<tr>
<td>5.Action of rebuilding</td>
<td>Organizations need to make the action of rebuilding visible to the stakeholders through media. A major topic of DR during recovery phase should emphasize what the organization is going to do and what has been done.</td>
<td>Working plans, measures of WPDRR, detailed procedures, commencement ceremony, progress, accomplishment, completion, success.</td>
</tr>
<tr>
<td>6.Virtues and values</td>
<td>In highly uncertain and stressful circumstances, DR usually falls back on ethics virtues and values to determine how to respond. A virtuous and value-based response to a crisis is likely to generate agreement and support from stakeholders.</td>
<td>Ethics virtues: responsibility, accountability, professionalism and self-sacrifice. Values: humanistic care, “people-oriented”, self-resilience, “make one’s own efforts, drop one’s own sweat, do one’s own job” “with hands, feet, and life, all difficulties can be overcome”, nation cohesion, “one in trouble, all to help” “we are heart to heart in the whole nation” “we make our passage together” “overcome the difficulties together” “unity is strength” “the supreme benignity is as water and love is immense”.</td>
</tr>
<tr>
<td>7.Corrective and innovative action</td>
<td>Another important topic of DR could be principle and steps that mitigate the harm caused by the crisis, or procedures taken to minimize the risk in the future.</td>
<td>Tangjiashan disaster relief, response to secondary disasters, legislation regarding disaster prevention and reduction, Law of the People's Republic of China on Protecting against and Mitigating Earthquake Disasters,</td>
</tr>
<tr>
<td>Themes</td>
<td>Description</td>
<td>Key words, phrases, sentences, symbols, images or actions</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>8. Community and personal transformation,</td>
<td>This theme includes long-term transformation and changes of ways of thinking. DR can introduce and discuss a different worldview or a closer relationship among individuals and communities that experience the crisis. Personal ascension and community cohesion as outcomes of a crisis could be included in DR.</td>
<td>Personal ascension, community cohesion, enlightened worldview, closer relationships, humility, magnanimity, benevolence and meaning of life, hope.</td>
</tr>
<tr>
<td>restructuring and change</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DR characteristics were operationalized by determining key words, phrases, sentences and actions associated with each renewal feature in the DR Characteristics Formula (see Table 2). Key words, phrases, sentences and actions were reviewed extensively by the coders so that each was looking for similar examples of DR features within the data. An operational cording form to identify DR characteristics was illustrated in Table 7.

DR objectives were determined by key words, phrases, sentences and actions associated with the three goals of DR which being suggested in the literature: 1) providing information to facilitate the stakeholders in recovery and renewal, 2) gaining compliance and cooperation of the stakeholders in recovery and renewal, 3) promoting healing in the effected organization or community. Key words, phrases, sentences and actions were reviewed extensively by the coders so that each was looking for similar examples of DR goals within the data. An operational cording form to identify DR objectives was illustrated in Table 8.
Table 7 DR Characteristics Coding Form

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Description</th>
<th>Key words, phrases, sentences, symbols, images or actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Being immediate, transparent and open</td>
<td>Organizations that employed DR usually reacted to the crisis rapidly and issue public statements about renewal immediately following the crisis.</td>
<td>Immediate, fast, open, transparent information about the disaster, disseminate as soon as, immediately, immediate show-up of the officials and responders.</td>
</tr>
<tr>
<td>2. Being proactive and positive</td>
<td>Frame the crises in more optimistic terms and be proactive in seeing obstacles as opportunities. The optimistic thinking in DR provides a positive direction toward which stakeholders can work.</td>
<td>Positive advocacy, proactive direction, fight the negative opinion, positive attitude, overcome difficulties, “we will get through”, “we will have a better future”.</td>
</tr>
<tr>
<td>3. Being prospective and future-focused</td>
<td>DR seeks to describe activities related to future goals and directions. DR is innovative in term of focusing on the future, delineating how crisis-induced exigencies can be overcome.</td>
<td>In three years, in five years, in ten years, future, better, speed up development; ignore the discussion of responsibility for the casualties.</td>
</tr>
<tr>
<td>4. From provisional to strategic</td>
<td>DR in the initial response may emerge from a more natural instinct to rebuild or reconstitute order following loss. When stepped into long-term recovery, an organization is very likely to conduct research, make plans and employ deliberate strategies to achieve its communication goal.</td>
<td>natural instinct, driven by instinct, details missing in pre-promulgated emergency plans, step by step, carefully plan, plan meetings, themes and strategies of the campaigns</td>
</tr>
</tbody>
</table>
5. Being restorative and dialogic

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Description</th>
<th>Key words, phrases, sentences, symbols, images or actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>DR is restorative for its purpose of restoring faith in a system, facilitating healing of those directly affected by the crisis, creating a sense of security, and establishing a vision for the future. Restorative rhetoric involved in DR is a more generative and spontaneous dialogue that is shaped not just in response to the crisis itself, but by contextual and social dimensions that layer the crisis event and influence response to it.</td>
<td>“A culture of gratitude”, “thanks to the nation, thanks to the whole people, thanks to the party”, “thanks” in written words, bow and kneel down to the responders, tears of gratitude.</td>
<td></td>
</tr>
</tbody>
</table>

6. Being quick resolving monetary and legal issue

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Description</th>
<th>Key words, phrases, sentences, symbols, images or actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick resolution of monetary and legal issue serves as both an objective and a premise of application of DR. The focus on bringing a timely resolution to financial and legal matters associated with the crisis distinguishes DR from traditional crisis response strategies.</td>
<td>State funds, donations, pairing plan, aid provinces and cities, no report allowed on legal issues in the disaster.</td>
<td></td>
</tr>
</tbody>
</table>

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### Table 8 DR Objectives Coding Form

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Description</th>
<th>Key words, phrases, sentences, symbols, image or actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inform</td>
<td>The entity uses DR to provide information to facilitate the stakeholders in recovery and renewal</td>
<td>Recovery plans, policies, guidelines, rules, procedures, progress, accomplishment and completion.</td>
</tr>
<tr>
<td>2. Persuade</td>
<td>The entity uses DR to gain compliance and cooperation of the stakeholders in recovery and renewal,</td>
<td>People-oriented, social good, best for the community, better community, proceeding the pre-disaster level</td>
</tr>
<tr>
<td>3. Comfort</td>
<td>The entity uses DR to promote healing in the effected organization or community.</td>
<td>In the honor of the dead, we are together, big love, care, concern.</td>
</tr>
</tbody>
</table>
Document collection

Rationale of document collection

Documentation of the events included administrative documents, press releases and news outlets from newspapers and television networks. These documents recorded important information about events, policies, plans, procedures, progress and the accomplishment of disaster recovery. Organizational documents and media reports were often collected for analysis on DR cases (see Ayers, 2002; Seeger & Ulmer, 2001, 2002; Seeger, Ulmer, Novak, & Sellnow, 2005; Ulmer, 2001; Ulmer & Sellnow, 2002; Ulmer et al., 2007).

Document collection is especially useful for longitudinal study since participants’ memory of their experience, feeling and knowledge begin to fade after years. Information in the documents is more reliable especially for statistical messages or complex procedures. Moreover, documents are unobtrusive and once saved as a copy can be checked and re-checked without bothering participants further. This data collection approach is also less costly and time-consuming. After interviews with the government officials, researcher made copies of selected documents and after interviews with the media chief editors, researchers requested a copy of selected news outlets.

Limitations

Documents being collected are not the entirety of all that exist; there is a huge number of administrative documents regarding Wenchuan PR campaigns, but many are not classified. Among those open to the public, the volume is still too big to plough through. Researcher had to select a thread and request disclosure of the relevant
documents. After a negotiation, the government officials have disclosed the annual department report (2009 to 2011), a large part of which contains a summary and evaluation of the post-disaster PR campaigns. Though these are a small portion of the administrative documents about the recovery campaigns, the annual reports are the most comprehensive records for understanding the decisions, progress, and self-evaluation of the recovery campaigns and setting up an effective database for the researcher to seek answers to the research questions.

Collection of the media reports has a similar problem. Within the three years of Wenchuan post-disaster recovery, there are more than 8 million news clips reporting WPDRR. It is not realistic to collect and analyze all the media reports. Therefore, researcher decided to use the same filtering procedure to select news reports to be studied. News clips that went to the public on anniversaries during the three years (2009-2011) were collected in five media markets: Sichuan Daily, Sichuan TV Network, Mianyang Daily, Mianyang TV Network, Beichuan TV Network.

**Selection method and documents obtained**

Government administrative documents were requested immediately after interviews with the officials. The supervisor of the Media Relations Department in the provincial government had suggested the annual department reports may contain the most useful information to study PR campaigns regarding WPDRR. The researcher had the chance to quickly review the documents and decided to take this suggestion and copied the three annual reports (2009, 2010, 2011) from the Provincial Government.
Government, the researcher requested and copied their annual reports. After all, researchers have gained 9 government administrative documents about the campaigns.

News clips from the TV networks were requested after interviews with chief editors from Sichuan, Mianyang and Beichuan TV network. Researcher has obtained an inclusive set of video clips made for three anniversaries from the Sichuan TV network, and copies of video clips made on three anniversaries from Mianyang TV network. Researcher got transcripts of news reports on three anniversaries from Beichuan TV network because the video records are missing due to their equipment shortage. Therefore, researcher has gained ample media reports for analysis. Total of over 24-hour long video clips had been collected.

To collect media content in print media, researcher selected one major province-owned newspaper in Sichuan province (Sichuan Daily), one major city-owned newspaper in Mianyang city (Mianyang Daily), and one major county-owned newspaper in Beichuan (Beichuan Daily). Reports on the first, second and third anniversaries of the three newspapers were sampled for evaluation. Anniversary reports were selected because the timelines had been set up as the milestones for WPDRR and were planned as the key events in communication campaigns. There were 124 news articles being collected.

**Data coding and analysis**

Campaign materials collected from the field were organized into three categories including provincial government, City Government and County Government documents so that researcher could refer to each category when analyzing campaigns launched by
different levels of local government. Media reports including written reports and video clips were also grouped into categories by province, city, and county. Government documents and media reports were partially translated from Chinese into English by the researcher as long as they were identified as answers to the research questions.

Key words, phrases, sentences, images and actions were reviewed extensively by two coders and each coder was going to look for similar examples within the data. The same coding procedures for interview transcripts were employed in this section. The coding forms for DR themes (see Table 6), DR characteristics (see Table 7) and DR objectives (see Table 8) were utilized for coding the news coverage.

**Units of analysis**

Babbie (1989) defined units of analysis as “those units or things we observe and describe in order to create summary descriptions of all such units” (p. 82). It refers to what is being studied (Ulmer, 1998). Units of content analysis in this study are the paragraphs in interview transcript, government documents and media reports. Key words, phrases, sentences, symbols, images and actions in each paragraph were carefully reviewed to see what topic, feature and objective it is. Then the similarity of the themes and characteristics between the field data and theoretical framework was carefully studied. Each coder reviewed the coding results with the other.

**Community survey**

**Rationale of survey**

The key purpose of surveys in this project is to collect information and opinions of residents in the disaster-damaged communities. Data collected through surveys
provide information about the nature and influence of recovery campaigns and factors that affect the renewal outcomes. Since the disaster-affected population is large (45.5 million people were affected by the Wenchuan earthquake), a sample survey from a small subset of the population was used (Fowler, 2002).

The power of the survey method is that it enables the researcher to collect information from a population that is too large to observe directly. In this project, it is important to know how community residents perceived governmental PR campaigns. It is difficult, if not possible to observe the three-year long information process and to test all residents’ perceptions. It is much less expensive and more efficient than any other method to sample the target audience and ask selected participants to answer the research questions.

Limitations

However, the procedures used to conduct a survey have a major effect on the likelihood that the resulting data will describe accurately what they are intended to describe (Fowler, 2002). Data from a poorly chosen sample cannot be generalized to the larger population. In order to minimize the sampling error, simple random sampling was chosen; all population members had the same chance of being selected (Fowler, 2002). Second, questions not clearly or accurately designed or stated may lead to less usable data. To ensure the quality of the questions questionnaires were given to a pilot group and tested for clarity of wordings. The design of the survey has also been peer-checked. Four interviewers sitting together five times revised and refined items and wordings in the questionnaire. Moreover, the researcher had considered a proper sample size and
response rate to ensure the representativeness of the data being collected (procedures to
gain a proper sample size and response rate are discussed below).

**Sampling method**

The community being surveyed in this project is the downtown of Beichuan County. The population was limited to the residents who have been through the earthquake and recovery since they have the first-hand information and are more likely to provide answers to the research questions. New residents were excluded. This community was selected because the old town collapsed causing mass casualty; a huge amount of work was needed to help the community to recover from the disaster. Before the earthquake, the downtown has a population of more than 200,000 residents. Nearly half of them died in the disaster. After the earthquake, the location of the downtown had been moved to a new, safer place. The survivors moved into the new homes from December 2010 to January 2011. The new residency houses are condominium apartments and the residents live densely which makes it is easily accessible for the research.

**Participant selection and sample size**

The population in this study was the survivors living in the new town. Size of the sample in this study is 204. This is a sample size to meet the budget, time and a proper degree of accuracy. The units in this project’s sampling were households, and any adult in the selected household could fill answers in the questionnaire. In the sampling pool, each household listed by address following a sequence of house numbers was assigned with an ID number (1-3471). These ID numbers was input into an online random number generator and generated 220 random numbers. According to these random numbers, 220
households were selected and visited. If the household had no occupant or rejected the interview, interviewers would go to the next household with the larger ID number. Finally, 204 valid and completed questionnaires were collected.

**Data collection**

The face-to-face interview format was applied in the survey for three reasons. First, some of the community residents are illiterate and needed assistance reading the questions. Second, a personal interview survey can generate a better response rate than website or mail surveys. While it is easy for many people to ignore a cold questionnaire, it may be difficult for them to ignore a live person who asks questions (Reinard, 2001). Third, questions can be better explained by the interviewers when conducting the survey and they can ask probing questions to check the validity of respondents’ answers.

There were 4 interviewers (including principle researcher as an administrator) conducting the survey. They visited the selected households from 9am to 8pm with a lunch break between 12:00pm and 2:00pm. Usually one interviewer could collect about 5 completed questionnaires per day on average. It took about five weeks to complete the survey (there are a three-week break for the Chinese New Year during the five weeks). A tube of toothpaste which was about one US dollar was offered to the participants as incitements.

**Survey development**

The first goal of the survey is to assess outtake and outcome variables of the disaster recovery campaigns based on a proposed model (see Figure 1). Measurements of each variable proposed in the model are introduced at following paragraph. The second
goal of the survey is to explore informational obstacles toward influencing renewal discourse. Specifically, participants were asked to provide information about 1) how much information they have known about WPDRR general guidelines, policies, and procedures, 2) to what extent they agreed with WPDRR general guidelines, policies, and procedures, 3) how much they received emotional support from the governments, 4) how much they were satisfied with, trusted and supported the governments’ efforts in WPDRR, 5) how did demographic information as well as personal recovery conditions influence the outcome variables. Demographic and personal recovery questions are requested at the end of the questionnaire to avoid being boring or threatening to respondents; the aim is to first build a level of trust in the interview. Detailed items in the questionnaire can be found in Appendix 2.

Independent variables

Demographic data. The questionnaire requested demographic data from the respondents. Questions asked about their sex, birth year, ethnicity, marriage status, education status, employment status, household income. Demographic data were collected as exogenous variables.

Personal recovery conditions. One question which included 6 sub-questions asked about physical, financial and family relational status before and after the earthquake. By comparing the scores before and after the earthquake, researcher can learn how much participants had recovered from the disaster. Personal recovery conditions were also collected as exogenous variables.
Situation awareness, attitude agreement and perceived care and concern were tested by a subjective measure—participants’ direct self-ratings on their knowledge of, agreement on WPDRR and their perception of governments’ care and concern.

Subjective measures of situation awareness are useful due to their ease of implementation, and Metalis (1993) suggested that subjective measures are practical because they may be used both in simulations and in the actual task environment. In addition, these measures are relatively inexpensive to implement.

**Situation Awareness.** Participants’ awareness of WPDRR was measured by three items including awareness of WPDRR general plan, awareness of WPDRR related policies and awareness of WPDRR detailed procedures. Three items were in use so that the researcher can collect more comprehensive information regarding to the participant’s awareness of WPDRR. Because Chinese publics are very familiar with being asked to describe their level of awareness or agreement in percentages, this project adopted the same format. One item, for example, asked participants about how much they were aware of WPRDD general plan. Their answers were recorded on an 11-point scale (0 = no awareness; 5 = 50%; 10 = 100%).

**Agreement.** There were also three items to measure participants’ agreement on WPDRR including agreement on WPDRR general plan, agreement on WPDRR related policies and agreement on WPDRR detailed procedures. Three items were in use so that the researcher can collect more comprehensive information regarding to the participant’s agreement of WPDRR. One item, for example, asked participants about how much they
agree with WPRDD general plan. Their answers were recorded on an 11-point scale (0 = no agreement; 5 = 50%; 10 = 100%).

*Perceived care and concern.* There were three items to measure participants’ perceived care and concern from local governments. Three items were in use because the researcher was interested to know publics’ perceived care and concern from three levels of government in WPDRR and it was precise to ask the participants to report their emotional perception respectively for each level of government. The first item asked about “how much do you agree that the Provincial Government cares about you in WPDRR”; the second item another asked about “how much do you agree that the City Government cares about you in WPDRR”; the last one asked about “how much do you agree that the County Government cares about you in WPDRR”. Participants’ answers were recorded on an 11-point scale (-5 = strongly disagree; 0 = neutral; 5 = strongly agree).

*Dependent variable*

The advanced level of measurement on a PR campaign usually focus on the key variable in the field—relationship. According to the campaign materials, the ultimate goal in the PR campaigns of WPDRR was to enhance the relationship between the public and local governments. It is essential to study from the publics’ point of view about how they had been connected with local governments in WPDRR. The relationship was specified as a latent variable with three observed items serving as indicators including satisfaction, trust and support. Statistical results of three indicators are reported at following.
**Satisfaction.** In this project, satisfaction was measured by three subscales including general satisfaction, cognitive appraisal, and emotional gratitude with the governments’ WPDRR efforts. Participants were required to report their satisfaction based on a general consideration as well as their particular cognitive and affective evaluations on the PR campaign. Cognitive appraisal refers to a process to compare performance with expectancies and was believed to largely contribute to people’s satisfaction (Oliver, 1980). Additionally, emotions were found to influence satisfaction as well (Westbrook, 1987). Therefore, researcher decided to include three subscale to cover a more comprehensive aspect of satisfaction. Each subscale had three items. One item for example asked participants: generally are you satisfied with the Provincial Government’s efforts in WPDRR? If yes (no), what is the degree of your (dis)satisfaction? Their answers were recorded on an 11-point scale (-5 = strongly dissatisfied; 0 = neutral; 5 = strongly satisfied).

**Trust.** In this project, trust in local governments’ efforts in WPDRR was measured by three items. Three items were in use because the researcher was interested to know publics’ trust in three levels of government (province, city and county) in WPDRR and it was precise to ask the participants to rate their trust respectively in each level of government. One item for example asked participants “Do you trust the Provincial Government in WPDRR? If yes (no), what is the degree of the (dis)trust”. Answers were recorded on an 11-point scale from “strongly distrust” (-5), “neutral” (0) to “strongly trust” (5).
Support. In this project, support to local governments’ WPDRR efforts was measured by three items. Three items were in use because the researcher was interested to know publics’ support to three levels of government in WPDRR. One item for example asked participants: “Do you support the Provincial Government’s efforts in WPDRR? If yes (no), what is the degree of the support (objection)”? Answers were recorded on a 11-point scale from “strongly object”(-5), “neutral” (0) to “strongly support”(5).

Reliability and Validity

Reliability and validity of content analysis

Qualitative content analysis relies on subjective evidence that makes it difficult to ensure the accuracy, credibility and transferability of the data. In this project, two steps were taken to ensure reliability and validity of the contextual data being collected and coded. First, there was one interviewer for the in-depth interviews who ensured the interview protocol was closely followed in each interview and probing questions were similar in each case.

Second, two coder were involved in coding the interview transcripts, government documents and media reports. Following the identification of all relevant passages by category, the two coders reviewed each other’s raw data sorting. Each item was then discussed. Through consensus, the final determination was made about its identification as a renewal theme or renewal characteristic. For emerging themes or characteristics which were out of the DR formula and the literature, coders made notes and carefully
discussed whether discourse can be identified as DR. An external Ph.D. student did peer-check for selected coding results.

**Reliability and validity of survey**

First, proper training was offered to interviewers in the face-to-face community survey to ensure they were interpreting the same meaning for different participants. A four-day training program was provided to 4 interviewers with Day One—orientation, Day Two—questionnaire construction and interview practice, Day Three—pilot survey, Day Four—revision meeting. Length of community survey ranged from 20 minutes to one and half hours. The community survey, although useful in this case, has limitations. First, it may be reported by biased observers with a personal stake in finding support for their assumptions. In this project, the interviewers were trained to be open-minded to different answers to the interview questions, avoid leading answers, and be consistent in nonverbal communication when interviewing different people to reduce the bias.

Second, internal consistency of the measurement scales that contained multiple items was measured with Cronbach's alpha. Scales of situation awareness, attitude agreement and perceived care and concern each had three items; measurement of relationship had three subscales as satisfaction, trust and support and each subscale contained three to nine items. Different items well complemented with each other for each scale and Cronbach’s alpha scores for scales were all over .70 (detailed alpha score for each scale is reported in Chapter Five).

**Triangulation of different data**
Triangulation for this case study was applied to assure clarity and suitability. Triangulation is a process of repetitious data gathering and critical review and analysis (Stake, 2006). This project employed mixed methods in answering each research questions. For example, RQ1 asked about whether the PR campaigns of WPDRR can be identified as an application of DR. This question was answered by the data collected from two methods—interviews and document collection. The data was reviewed critically for repetitious DR themes, characteristics and objectives.

Interview transcripts, government documents and media reports were analyzed together to represent the findings. The findings were first examined for thematic clusters separately. Then the thematic clusters generated from different data were critically reviewed, contrasted and compared. These categories were compared to see whether there is any discrepancy or conflict among different levels of government bodies and whether there is any discrepancy or conflict between government communication plans and media reports about renewal themes, characteristics and objectives.

**Summary and Preview**

This method section first reviewed the rationale for the case methodology and case selection. Then the pilot study and the main test were explicated. Data sources include in-depth interviews, documents collection and community survey. The rationale and limitation of each data collection methods were discussed and procedures were introduced on how to code and analyze the data. Procedures to ensure reliability and validity were articulated. Based on the information collected through these approaches,
the next chapter provides a narrative report on the PR campaigns which serves as background for answering the research questions of this study.
CHAPTER FOUR: NARRATIVES

China has a single-party socialist republic framework which says that government’s decisions reflect public opinion. Yet, only in recent years has the idea that citizens should be well-informed been gradually adopted by the governors. Public relations therefore became institutionalized in the Chinese government (Chen, 2009). The Wenchuan earthquake erupting in 2008 put the newly-formed government public relations system in the national spotlight. In order to fully understand how the Chinese government employed DR framework in their WPDRR communication, some background information is necessary. This chapter illustrates findings of PR efforts made by each level of government as well as the government-owned media in the aftermath of the Wenchuan earthquake.

It was a Monday afternoon (14:28) when the Wenchuan earthquake struck and over a dozen provinces and municipalities in China including the capital city felt the strike strongly. The devastating disaster required a fast, effective response by the regional and local governments to save lives, rescue the injured, provide living resources and shelter, keep social order, and organize reconstruction. The Information element of response is believed to be a key contributor to strategic success in carrying the disaster-hit areas through the devastation. Since the post-disaster reconstruction started at almost the same time as the rescue and relief operation, application of communication efforts to
disaster recovery needs to be analyzed from the initial response stage.

It is also vital to illustrate the PR campaigns in the rescue and relief stage to better understand how communication contributed to the three-year WDPRR. Though this project focuses on the study of communication campaigns launched by the local governments, the response of the central government is introduced at the beginning of following paragraphs to serve as background information. Then, communication campaigns launched by the province, city and County Government are described in sequence. For each level of the local governments, its initial and long-term communication efforts are both presented.

**The Central Government**

The Central government responded to the Wenchuan earthquake rapidly (Chen, 2009). Two hours after the earthquake erupted, the National Disaster Mitigation Committee launched the second level of national emergency response. Eight hours later, the national emergency response was upgraded to first level. Ten hours later, first responders from nearby regions joined rescue efforts in isolated areas. Twenty-six hours later rescuers from Army Corps of engineers and national guards arrived at the epicenter (Wenchuan). More than 150,000 rescuers, including 84,000 from the army corps, 42,000 military reserves, and 32,000 medical staff were working in the hard-hit areas during the initial response. The National Disaster Response Plan of China was initiated shortly after the earthquake.

Immediately after the earthquake, the central government’s public information department launched nation-wide PR campaigns to disseminate information, direct the
public agenda and mobilize collaborations as part of the disaster relief. All the major state-owned media and local-government-owned media participated in the campaigns. Hundreds of reporters from state-owned media and tens of thousands of reporters from local media outside Sichuan came to the area for news stories. Disaster relief and rescue became a primary topic in the media all over the country.

The State Council declared a three-day period of national mourning for the quake victims from May 19 to 21, 2008. The national flags were raised at half mast in the whole country, which is the first time that a national mourning period had been declared for civilian casualties in China. At 14:28 on May 19, 2008, a week after the earthquake, the governments organized a moment of silence, in which all the government leaders and Chinese public stood silent for three minutes while air defense, police and fire sirens and the horns of vehicles, vessels and trains sounded, and cars on major roads all over the country came to a halt. People that gathered in Tiananmen Square spontaneously burst into cheering “China Jiayou (Go, China)” and “Sichuan Jiayou (Go, Sichuan)” afterwards. These lively scenes have been broadcast throughout the media repeatedly.

The Provincial Government of Sichuan

The public information departments and government-owned media immediately enacted commitment and endeavor to rescue and recover. Information manpower was heavily distributed to report Wenchuan earthquake relief and WPDRR. Initially, there were 5,000 Sichuan reporters sent to the front line of earthquake relief, and 10,000 editors and technicians worked in the rear of the operational area. Within the province, the long-term recovery and WPDRR were kept as a major topic on the local media.
Initial response

The Provincial Government of Sichuan is located in Chengdu, 80 km away from the epicenter. The Provincial Government detected the earthquake as soon as it struck since the whole city felt it strongly and many people run into the street. The public information department of the Provincial Government required all government-owned media to cease their original daily schedule, break the normal crisis report procedures, and use all available air time or newspaper capacity to report information related to the disaster. On 14:55 May 12, 2008, the first message about the earthquake was broadcast by Chengdu Traffic Radio in the special news section. Since then, Sichuan People’s Radio, City Radio, Chengdu People’s Radio, and Chengdu TV network started to report the earthquake live. Sichuan Daily, West China Metropolis Daily, Tianfu Morning Post, Chengdu Business Daily, etc. published special collections of reports on the disaster. These media kept updating the disaster briefing, introduced the government response, stabilized people’s nerves and motivated social support. The major province and city media cancelled all entertainment programs/sections and their advertisement plans.

The chairman of the public information department in the Provincial Government drove to the Sichuan TV network station, the most influential regional media outlet, immediately after the earthquake struck and established and operated the Disaster Relief Information Center in the TV station. 16:00 on the day, Sichuan TV network and Sichuan People’s Radio passed on the disaster relief instructions from the Chief of Sichuan provincial Party committee, the top leader of the province. From 16:30, Sichuan TV and Chengdu TV started to report the earthquake live and starting at midnight each ran a 24-
hour live news broadcast about the disaster. Till August 13th, 2008, Sichuan TV has put on air 7,430 hours live news and Sichuan People’s Radio has broadcast 6,093 hours live news about the earthquake.

The public information officers have set up the agenda and themes for the news report; for example, “Unity is Strength” “One in trouble all to help” “Thanks to the nation, thanks to the whole people” are some of the major themes in the initial response. More themes emerged from the information collected by the reporters sent out to the disaster-hit areas including rescuing lives, sanitary and anti-epidemic service, emergency shelter, donations, etc. The media agenda aimed to 1) reassure the residents, 2) mobilize corporations, 3) promote support, and 4) contribute to positive public opinion towards the disaster response.

The PR campaigns of WPDRR

From June 11, 2008, when the risk caused by Tangjiashan quake-induced lake was relieved, the Provincial Government started to systematically plan post-disaster reconstruction. Communication campaigns that played a crucial role in the initial response were strategically planned to create supportive public opinion towards WPDRR. The public information department in Provincial Government generated a general theme for communication campaigns as “from tragic to magic” (government documents and media reports). It organized all the local media in the province, cooperated with the state media and media from other provinces, a total number of 1,900 media and 48,000 person-time interviews and published more than 8 million news reports about post-disaster
reconstruction. These news reports have advocated the recovery plan, recorded the recovery process and contributed to the final success of the post-disaster reconstruction.

The public information department in the Provincial Government actively cooperated with the public information department in the central government. It wrote a manuscript for the public information department in the central government to send out administrative requirements to all the government-owned media in the country to report WPDRR primarily and positively. For example, that public information manuscript required all the media to introduce Sichuan post-disaster reconstruction and accomplishment, advocate its successful experience and positive image in hope of creating a positive public agenda for WPDRR nationwide.

The public information department in the Provincial Government also actively cooperated with the state media, providing news materials, and services, making sure that the news reports sent out by the state media are consistent with the local media. For example, the local government provided services to the more than 1800 reporters that came from the People’s Daily, Xinhua News Agent, China Central TV, etc. and provided 320,000 words of news material. The local government organized 9500 people agreeing to the interviews by the reporters. The state media and media from other provinces have published more than 2 million news reports about WPDRR.

Several strategies were employed in the PR campaigns of WPDRR. First, role models were selected and their stories were advocated to reflect how local governments, party members and cadres, community members and personnel from aid provinces and cities have contributed to post-disaster reconstruction. Second, 1st, 2nd and 3rd
anniversaries were selected as the peak of the communication campaigns and intensively reviewed the reconstruction progress, aroused patriotic passion, established a positive image for the government and the community. On each May 12 from 2009 to 2011, the Provincial Government’s public information department organized and coordinated the local media, state media and media in aid provinces and cities to publish special issues and special programs about WPDRR.

The City Government of Mianyang

Initial response

The City Disaster Relief Command Center was established immediately after the strike in the front yard of the city hall. The command center used shortwave radio to collect the information about the earthquake and wrote government notices about the disaster. Without TV network and radio signals, the responders drove vehicles along the street to broadcast the disaster briefing and the first government notice through speakers. From 15:30 to 16:34, on May 12, 2008, the Command Center received disaster reports from its counties and villages and started to send responders to rescue lives. On 19:20, the command center sent out the second government notice suggesting residents stay outdoors and start self-rescue. On 19:45, the third government notice was published which educated the residents on how to protect themselves in the aftershocks. The public information department in the City Government required all the government-owned media to stay in their positions and publicize the disaster response. All the disaster reports were reviewed and verified by the public information officers before going to the public.
There are two major government-owned media in Mianyang: Mianyang radio and TV network, and Mianyang Daily; both were severely damaged in the earthquake. The office buildings they are housed in were abandoned and crews had to work in temporary sites such as front yards, garages and tents. Some of the personnel were injured, some of their family members died, and most of them lost their houses and property, but almost all of them stuck to their posts and worked at full speed. Disaster Report Command Centers were established in these two media. Staff risked their lives to take the equipment out of the building in the aftershock and started to operate immediately after the earthquake. All of the reporters were sent out to collect information and stories about the disaster. Mianyang radio and TV got their signal recovered at 20:00 May 12, 2008 and started to disseminate information and images about the losses and government response. Mianyang Daily distributed its first issue about the earthquake free to the residents and survivors on 8:00 May 13, 2008. These two media operated in extreme hardship and strong spirits; they knew their work was critical.

**The PR campaigns of WPDRR**

After the risk of Tangjiashan quake-induced lake was removed on June 11, 2008, the communication campaigns launched by the City Government have changed their topics to providing shelters to the millions of disaster victims. After the construction of temporary shelters was completed in August 2008, the topics were switched to restoration of production, promotion of development and rebuilding of homes. The City Government received strategic instructions from the Provincial Government and made their own working plan for communication campaigns. There were three general themes in city
communication campaigns. The first one is development, which was to direct the efforts of the whole city to the government’s plan for reconstruction. The second was spirit of the era, which was to advocate community cohesion, mutual aid and the unyielding and tenacious spiritual power demonstrated in the crisis response. Organizations and individuals were selected as role models. The third theme was promotion of positive outlooks. Regarding some negative and distorted opinion, the government emphasized the importance to the media of assuring the public and creating a supportive social network.

Different stages of media reports about WDPRR were identified accordingly. In stage one, the media reports focused on how governments have provided shelters and living resources to the victims, sanitation and epidemic prevention, and how the governments effectively commenced the reconstruction. In stage two, media reports aimed to explain to the public about the reconstruction plan, principles, procedures and progress in hope of gaining public support. Starting in mid-April, media concentrated on reporting the main strategies and accomplishments, which lasted for two months. In 2010, the public information department issued 8 documents about the PR campaigns of WPDRR, and clarified the main topics and requirements for the city-owned media. Starting on September 14, 2010, the city public information department invited 30 province-owned newspapers outside Sichuan, 20 city-owned newspapers within Sichuan, more than 30 city-owned newspapers outside Sichuan to visit Mianyang and report on its reconstruction progress. Up to the end of November, 2010, there were 640 news reports totaling 670,000 words published about this trip.
The County Government of Beichuan

Initial response

Two staff members of the public information department of the County Government died in the disaster, one other was severely injured, and four slight wounded. The head of the public information department used the speakers on the police car to call for public calm and cooperation with government. In the early morning of the next day, the responders sent by the City Government arrived. The county leaders and the responders from the city established the Disaster Relief Command Center to organize rescue work and carried out evacuation of survivors.

The Beichuan Radio and Television bureau is government-owned and is the only media outlet in the county. Its office building was razed to the ground and many employees died or were injured. All equipment, cable and radio networks were destroyed. Six days later, broadcasters and staff from Beichuan Radio and Television started to broadcast news and healthcare information through emergency broadcast transmitters in disaster shelters. The county media received fewer strategic instructions from the government than province and city media, because the public information officers spent all their time cooperating with and providing service to hundreds of external media visiting the area. The survived staff basically worked on their own and rarely had their reports reviewed or dictated by the government officials.

The PR campaigns of WPDRR

The public information department in Wenchuan County actively worked with external media including the state media, province and city media as well as many media
from outside the province and even outside the countries. The department took advantage of the intense media attention to obtain as much external support for WPDRR as possible. On May 18, 2008, head of the county Jin Dazhong did an interview with the program Face to Face on China Central TV (CCTV). The interview was broadcast on June 1, 2008 and raised national awareness of Beichuan County. On April 5, 2009, Jin was interviewed by Yang Lan, a famous TV anchor, to talk about how he got through one difficulty after another and led the whole county to a promising future.

On January 29, 2010, Jin represented the county in discussion of hot topics in WPDRR in an interview with China News Agent. On March 26, 2011, the county public information department provided service to 21 chairs of provincial external communication departments from outside Sichuan and 26 heads of national Internet media who visited Beichuan County. From April 18 to 21, the county public information department provided service to over 30 foreign media. On April 28, 2011, the county public information department invited 130 reporters from 14 province TVs and 36 city TV stations to witness the instantaneous change of the county. The next day, Jin did an interview with Livelihood Weekly, reporting the accomplishment of the county WPDRR and introducing the plan for the future. On the day of 3rd anniversary, May 12, 2011 the county public information department held a press conference to promote the tourist industry of Beichuan County.

The external communication efforts in Beichuan County tended to avoid topics about the damage and losses in the disaster and focused on cultural activities and reconstruction accomplishments. All the county public information officers and media
workers experienced loss of family members and homes, and were very careful in planning the content of the PR campaigns. One strategy they employed is cultural healing. That is, they organized cultural activities such as celebrations of the festivals, movie shows and drama performances, etc. in hopes of filling in time after work for victims and lightening their mood. Within the three years of WPDRR, the county media attempted to portray a bright picture of their new homes to create hope for the survivors.

Beichuan Radio and Television got back to normal operation beginning August 1, 2008. The Beichuan News, which used to be reported three days a week, changed to daily publication. After the media moved to the new office building in the new county town in 2011, equipment was upgraded and crew enlarged. The support network built in the initial response phase was kept operational in the recovery stage. Until the end of 2008, the Radio and TV station made 1,631 news reports, with 12 of them selected by the China Central TV, 31 of them selected by Sichuan TV, 174 of them selected by Mianyang TV and 1667 of them selected by Mianyang Radio.

**Summary and Preview**

This section explicated how the Chinese government launched PR campaigns after the Wenchuan earthquake. Evidence in this chapter showed that efforts in communicating to the public about the disaster and the government’s response were made by the public information departments in each level of government and government-owned media. Next chapter will analyze data to answer the research questions.
CHAPTER FIVE: ANALYSIS

The Wenchuan earthquake provides a suitable case to analyze 1) what crisis communication framework the Chinese government employed in achieving disaster recovery goals, 2) what are the factors that influence the effectiveness of their communication efforts, and 3) what are the potential communication barriers in the PR campaigns of WPDRR. The data, which was collected by mixed methods for each research question (RQ1—in-depth interviews and document collection; RQ2—in-depth interviews, document collection and community survey; RQ3—in-depth interviews and community survey) was classified into two categories, qualitative and quantitative for analysis. Findings are presented in this chapter in the order of answers to RQ 1, 2, and 3. Examples of DR themes, characteristics and objectives are reported in details and results of quantitative analysis on the survey data are illustrated. Additional findings are also reported. The chapter ends with a summary and preview.

The Wenchuan earthquake that struck in 2008 caused catastrophic damage to the affected area and brought a high degree of chaos, trauma and confusion to the community. Chinese governments have demonstrated a strong capacity to restore the social order, reassure the public, organize rescue efforts and reconstruction, and improve the seismic prevention and disaster mitigation system. Public information departments and government-owned media had played an essential role in disaster response to provide
disaster information, educate people about how to rescue themselves, mobilize social support and heal the trauma in the long-term recovery.

During the three years of WPDRR, the disaster area had experienced a process of mitigation of the risks of secondary disasters, restoration of social life, reconstruction of residents’ housing, public facilities and infrastructures, and finally an impressive community renewal. The glorious success has been reported by the governments, witnessed by the researcher and confirmed by the community members. The Chinese governments have claimed the growth and prosperity of the earthquake-hit areas in their documents, media reports and in interviews with the researcher. The researcher made two trips (in June 2011 and January 2012) to visit the rebuilt communities and was able to closely observe housing, public facilities, basic infrastructures, employment, and community culture, being rebuilt and revitalized. There were visible signs of the prosperity of the earthquake-hit areas.

According the co-creational perspective, a meaning for reality will not be completed without co-creation of the public (Botan & Taylor, 2005; Taylor & Botan, 2006; Botan, Jun, Hu, Roser-Renouf, & Leiserowitz, 2010). It is essential in this case to know whether the community members acknowledge the renewal achieved; that is, whether they perceived their lives not only return to the pre-disaster level, but become better than before. In order to learn the public’s perception, participants in the survey were asked to report their evaluation of residency housing, public facilities, basic infrastructure, employment, and community culture before and after disasters. Scores of the five dimensions before disaster were added up and calculated for an average score of
the overall condition before and after disaster; they were calculated for the overall condition after the disaster. The two variables were compared using a Paired-sample T-test and generated a significant difference ($T=-8.24, p=.000$), which means the participants confirmed that the overall living standard had been significantly improved after the disaster.

Based on the tripartite acknowledgement of renewal achievements after the Wenchuan earthquake, the researcher further explored how communication has played a role in the renewal process. Public information officers stated that the PR campaigns of WPDRR were launched immediately after the earthquake hit the area. It has set a new record for Chinese governments of launching communication campaigns on such a grand scale, at such long length, and with full deployment of manpower and resources in response to a natural disaster. What’s more important, the communication campaigns clearly targeted the public (both insiders and outsiders) and aimed to create supportive public opinion on WPDRR and a favorable relationship with the public. Since the communication efforts show a tendency to value public opinion, they are different from propaganda that used to be applied by CPC and should be classified as public relations efforts. Thus, the PR campaigns of WPDRR are qualified as PR implementation in a crisis situation.

**Answers to Research Question One**

The first research question asked: can the PR campaigns of WPDRR launched by the Chinese government be identified as an application of DR? This question was answered by the data from content analysis on interview transcripts, campaign documents
and local media reports on WPDRR guided by the formulas of DR themes, characteristics and objectives. Evidence does show that main recovery themes that can be found in campaign materials include 1) strong and trustworthy leadership, 2) heroes emerging from the crisis, 3) making sense of opportunity, 4) commitment to rebuild, 5) action of rebuild (plan, progress and completion), 6) virtues and values, 7) corrective and innovative action, community and 8) personal transformation, restructuring and change. Additionally, there are also data manifesting eight characteristics of DR including being 1) immediate, transparent and open, 2) proactive and positive, 3) prospective and future-focused, 4) provisional and strategic, 5) restorative, 6) quick resolving monetary and legal issue. Three objectives were identified as 1) to inform, 2) to persuade, and 3) to comfort. Evidence of each theme, characteristic and objective is illustrated at following.

**DR themes**

Crisis communication scholars (Littlefield et al., 2007; Seeger & Ulmer, 2002) had identified certain DR themes that were contradictory to ordinal topics in crisis response that utilized apology, image repair and SCCT strategies. Organizations observed using DR themes have experienced full recovery from the crises and even prospered in the aftermath (see Seeger & Ulmer, 2001, 2002; Seeger, Ulmer, Novak, & Sellnow, 2005; Ulmer, 2001; Ulmer, Seeger, & Sellnow, 2007; Ulmer & Sellnow, 2002; Ulmer et al., 2007). The Sichuan province has witnessed a material and social renewal after the Wenchuan earthquake. Enactment of PR campaigns was an essential element in its renewal project. If the DR themes can be identified in the WPDRR communication
campaigns, the case can serve as a first reported example of successful application of DR in China.

The PR campaigns of WPDRR that launched by different levels of governments (state, province, city and county) have inherent connections. Campaigns launched by an upper level government usually provide general guidelines, made supportive information environment and required cooperation from its lower level public information workforce; a lower level government, on the other way round proactively use the upper-level or external media to achieve their campaign objectives. This project has identified local governments (province, city and county) as the leading role-players in WPDRR and analyzes the data from a local angle. The campaign materials collected from the three local governments are input into one data pool and reviewed to answer RQ1a—what DR themes local governments employed in communication campaigns to promote WPDRR.

**Strong and trustworthy leadership**

Leaders were highly visible and accessible to the media during the initial response as well as the recovery phrase. Premier Wen arrived at the earthquake-hit area five hours after the disaster struck. State media and local media recorded that Wen risked his life in the aftershock to participate in the Disaster Relief Command, gave instructions to rescue workers and comforted the victims. A video has captured Wen together with heads of the Sichuan province working outdoors in the rain late at night; one video showed his attempt to rescue a victim with his bare hands under rubble, and another one showed that he fell to the ground in an aftershock. Photographs have captured well his caring facial expression and gestures when visiting the disaster area. His image and remarks have been
put on air by all the media nation-wide and broadcast and published repeatedly. Wen stayed in the earthquake-hit area for 4 days until Hu Jintao, the president of the country, arrived in Sichuan. Hu assumed command and kept working on the front line of the disaster response. Both Hu and Wen had given important speeches to require responders to overcome the difficulties and encourage the trapped victims to hold up until they could be rescued. Their speeches were broadcast through the national cable network, newspapers, radio and the Internet. Image of both top leaders were depicted positively in the initial response which is considered crucial to ensure the public in the disaster area.

Activities of the heads of the local governments were recorded by the local media as well as external media that visited the disaster area. After the Disaster Relief News Center was established, a TV news team and reporters from Sichuan Daily were sent to the Provincial Government and recorded both Liu Qibao, the chief of the CPC Sichuan Committee and Jiang Jufeng, governor of Sichuan province, attempting to reach the epicenter in the aftershocks. Local media reported the establishment of the Disaster Relief Center and portrayed the heads of the Provincial Government working day and night to mobilize and organize rescue work, collect and allocate supplies. Their daily work was basically recorded and reported by specified media (Sichuan TV and Sichuan Daily) and they were usually accessible to other media in the daily press conferences. Since Liu worked actively in the disaster relief, he received intent media attention and established an affirmative reputation in the initial response.

In Mianyang city, Tan Li, the chief of CPC Mianyang Committee, was lauded for his efforts in initial response and post-disaster reconstruction by the local media. Yet, Tan
made an inaccurate judgment of the damage in Mianyang; especially in Beichuan County town his response was less advocated by the government-owned media. Tan transferred to another province in early 2010. Jin Dazhong, the Governor of Beichuan County, was heavily interviewed by the state media and local media as a survivor and the first responder to organize self rescue in the county. He was emotional when talking about the damage and firm when talking about the disaster recovery. He presented a very impressive and positive image of a strong and trustworthy leader in the community. As a good interviewee, Jin was a favorite of the media and became a well-know public figure in the county.

The positive image of the leaders established in the initial response has undoubtedly contributed to their work in long-term recovery. Media (local and external) regarded these leaders as the most important information sources and introduced their further activities in WPDRR with trust and support. The leaders’ encouraging remarks in the initial response were made into slogans for the WPDRR. For instance, Wen had encouraged the victims in Beichuan County Town and said “he who survived should work hard since his happy life is the best relief for the dead” on the third day after the earthquake erupted. The other day on May 15, he visited a rural town in Beichuan County and told the survivors “the party and the central government will not ignore the rural area, please pull yourselves together, stand on your feet, provide assistance to each other and rebuild the home”. On May 18, 2008 when facing a heap of rubble of the earthquake Hu claimed to the media and responders that “no difficulty will conquer the brave Chinese people”. On May 22, 2008 Wen visited Beichuan County for the second time and
promised the local officials to “rebuild a new Beichuan”. These remarks had encouraged not only the people on the scene but also the audience and readers. Later, some of these remarks were made into huge outdoor posters frequently shown on TV, in newspaper and Internet reports.

Local leaders who earned fame in the public in the initial disaster response had easier compliance and cooperation within and out of the community. The province first made its three-stage plan for WPDRR (basically recover in three years, develop and thrive in five years, and build a well-off society in an all-around way in ten years). Yet in order to correspond to the state plan to “basically complete the three-year task in two years”, the local governments had to speed up the process and push really hard on all subordinate units, all government employees and community members. Without strong leadership, it was arduous if not impossible to meet the tough goal. The heads of the local governments frequently showed up on the front line of reconstruction and constantly bolstered morale when people got tired and listless. The media faithfully showed the hardworking figures and informed the public about their beliefs, personalities and activities. These communication efforts of the leaders helped to create the impression that the disaster was being well managed, and the governments care about the victims. The reasserted order, control and emotional support have created hope for the survivors. The miraculous renewal of the disaster-hit area within such a short time was believed to be strongly associated with the strong and trustworthy leadership.
Heroes emerging from the crisis

Crises regularly involve narratives about “tragedy, victims, sacrifice, heroes, and villains” (Seeger et al., 2003). The emergence of heroes from crises was documented in the literature as one of the themes present in DR framework (Hasbargen, 2011). Disasters always create heroes who demonstrate courage or noble qualities. Heroes that emerged in the Wenchuan earthquake were from responders, survivors and volunteers. They became role models and helped to mobilize their group members. These heroes were identified by the government and media and their stories were told to the public and became the focal point of the communication campaigns. Heroes were defined in both initial rescue and long-term reconstruction.

In the initial response the first group of heroes was from the military. The media highlighted that the military was fully mobilized for rescue operations that acted timely, orderly, and effectively. There were about 133,000 members of armed forces and 45,000 paramilitary forces participating in the initial rescue including saving lives and repairing roads. These people risked their lives for the rescue victims in the aftershocks and some of them even lost their lives. The media especially reported the story of the Qiu Guanghua team in the air force. On May 31, 2008, the Qiu Guanghua crew flew a helicopter in the task of evacuating civilian residents. Due to an instantaneous change in the local climate, the helicopter lost control and crashed into the mountain. All five crew members were killed. Their deaths were defined as glorious sacrifice in the disaster relief and the government honored them as martyrs.
The media deliberately promoted the second group of heroes that are the CPC members and government cadres in both initial response and long-term reconstruction. Besides the top leaders of the governments, media have identified many role models in initial rescue and disaster recovery. Devoting special attention to promotion of heroes in initial response was an important part of the communication plan and the goal was to instill “positive thinking” in the popular mind. During the disaster recovery, the government and media kept identifying and portraying heroes in arduous reconstruction in order to boost morale. The media introduced the hard work of the CPC members and government cadres as working “5 plus 2” (5 weekdays plus the weekend) and “day and night”. Ye Zhiping (1953-2011) was a party member and served as the principal of Sangzao Middle School in An County, Sichuan, which was severely hit by the earthquake. Compared with the huge casualty count in other schools, none of his 2,323 students were harmed due to his special measures such as frequent emergency drills and risk education. He worked extremely hard reconstructing the damaged building and restoring school operation afterward. He passed away in his position at age 59 in 2011. His story was disseminated by the media widely and he was named by the media as “the best principal”.

There were also heroes identified among volunteers in initial response and personnel from aid provinces and cities in reconstruction. The best volunteer, Chen Yan, was reported by the media as an experienced rescuer. He kept working for 80 straight hours in the first 5 days and nights after the strike. He saved over 20 kids from the rubble with bare his hands. There were more than 2800 government cadres from the 18 aid
provinces who came to Sichuan and participated in the reconstruction. Many of them worked far from their home for three years. The volunteers often worked overnight in order to accelerate the project to meet the objective of “basically completing the three-year task in two years”. Cui Xuexuan, reconstruction team leader of new Beichuan County town who came from Shandong, worked day and night for one year to rebuild the new county town in spite of his illness, until he was struck down by liver cancer. At the end of his life, he told the media that his heart was at rest since he had made his last efforts to help the disaster victims.

Heroes also emerged from donors by the definition of the media. A retired teacher has been reported who has auctioned her apartment in Shanghai for 4.5 million RMB (about 650,000 U.S. dollars) to raise funds to build a school in an earthquake-hit area of Sichuan. She told the media that "my apartment can give traumatized children a strong school. It's quite worthy" (media reports). The apartment was her biggest single piece of property. It used to bring her a monthly rent of about 8,000 RMB (1,270 US dollars). Shen herself lives in another apartment and survives on a pension of less than 2,000 RMB (317 US dollars). Media has praised her selflessness and named her as "the best retired teacher in history".

These powerful stories of personal quality and behaviors would work as other-enhancement and inspired their group members to initiate similar act. The whole community was motivated to dedicate in WPDRR and break down the barriers that keep people from seeking the help from each others. The Heroes effort also intends to recognize the heroic acts of recovery made every day by people who continue to stay
clean and sober. It honors heroes recovering from many other types of disorders and trauma that can feed or manifest from an addiction as well. It's important for the public to understand, embrace, and encourage people who are finding a way to thrive within their own circumstances and live the lives that they desire and deserve.

*Making sense of opportunity*

Sichuan was known as the “Land of Abundance” and people’s livelihood was peaceful over there. When Wenchuan earthquake hit the area in 2008, many victims had a difficult time to understand what had happened. For the mass survivors, they first thought that it was a moderate level earthquake till they found their life was terribly disrupted and their family members, relatives, friends and acquaintances got injured or died. Shock, fear and confusion triggered the chaos and panic. Rumors that there were worse strikes coming and desperate feeling like the end of the world had spread out among the community (personal interview).

A priority task for governments and media was to create meaning of the turbulent event. Media and government press conference quickly announced the detection of the strike and confirm the magnitude of the earthquake. The community was reassured that the major strike was over and there were aftershocks being felt. Communication during the initial stage of the disaster played a key role to calm the public down and urge rationale behaviors. Interpretation of the disaster was still crucial in recovery phase especially for those who lost all properties in the earthquake. Governments quickly claimed to take the responsibility to lead the rebuilt and used rhetoric of opportunities.
DR employed in WPDRR differed from other crisis response discourse mainly because it views the disaster and crisis not thoroughly negative. In this case, the disaster was even framed as positive in some way. First, governments and media emphasized the opportunities created by a crisis. A saying of Friedrich Engels "every unlimited history disaster is paid for the advance of the history" has been extensively and repeatedly quoted in describing post-disaster reconstruction (media reports). The metaphor of phoenix was widely used in the communication campaigns. The damaged community was compared to legendary Phoenix that self-cremates in its nest of cinnamon twigs, rising again to embalm its predecessor in an egg of myrrh. The community was believed to be the Phoenix to rise again from it metaphorical ashes to better meet the exigencies of a changing world. Another interpretation of the disaster being widely quoted is the sentence written by the premier, Wen who said “tribulations will revitalize a nation” on the blackboard when visiting a temporary school for the survived students (media reports).

Before the earthquake, Provincial Government had a plan of industrial reconstruction in the urban cities and residential remodeling in the rural areas. In the aftermath of the earthquake, local governments asserted that the post-disaster restoration should be combined with pre-disaster development plan and emphasized the opportunity to stir economic growth and improve the livelihood of the residents in both urban and rural regions. The opportunity was created by the disaster which provided the room, space, financial aid and public consensus to implement the reconstruction campaigns.
The government statements argued that WPDRR should not be simply returning the community to the pre-disaster level but to an upgraded one.

When reporting the accomplishment of reconstruction, the Sichuan government emphasized the development of the economy in the three years following the earthquake, as well as better housing and public facilities in the disaster-hit area. Phrases such as “turning disaster into renewal” “grasp the opportunity” “take the chance” were frequently presented in government documents disseminated through media. On April 25, 2011 Major Zeng in Mianyang City claimed in the TV conference that the rebuilt public infrastructures of the city have advanced 20 years. Beichuan County claimed to build a whole new and model township which has been defined by the media as the best county town in Sichuan.

The rhetoric of opportunity described a promising future for those were suffering in the aftermath of the earthquake and supported them to go through the trauma. One of local media chief editors who was also a victim of the earthquake said to the researcher “we’re waiting and waiting, in hopes of the new home. It was hard to tell how happy I was when a whole new town was built up and my fellows began to move in” (personal interview).

**Commitment to rebuild**

A key component of government discourse following Wenchuan earthquake is the immediacy of a public commitment to rebuild. While there were still threats and uncertainty caused by the secondary disasters such as aftershocks, landslides, debris flows and flood associated with Wenchuan earthquake, the state council announced
decision to support WPDRR and urged local governments to start to plan the reconstruction. The top leaders of the country made important statements to show their determination and gave instructions on rebuilding. The evening after the earthquake, President Hu held a meeting with the Central Committee of CPC and arranged responders to recover disaster-damaged transportation, telecommunications, water and the power supply. On May 17, 2008, President Hu pointed out the urgency of making an aid plan to rebuild the damaged community. Ten days after the earthquake, Premier Wen revisited Beichuan County and made a public pledge to “rebuild a new Beichuan”. On May 26, 2008, President Hu announced that considering the huge damage in the disaster-hit area, the State Council would help the community pair with other provinces and Sichuan would work on the task of reconstruction with the support of the entire nation.

While the disaster relief was going on, formulation of policies and measures of post-disaster reconstruction was well under way. The State Council promulgated on June 11 the Paring Assistance Plan in WPDRR, which identifies 19 provinces and cities to provide one-on-one support to the worst-hit counties in Sichuan Province. This is a decisive plan that moved WPDRR from a concept to operation. It showed not only the determination but also possibilities of rebuilding. The measures were further specified and explained by all the media in the nation and achieved a social agreement on the proposal in the country. A regulation on reconstruction made effective on June 7, 2008 was the first regulation for a single massive quake, designed to lead the reconstruction work into a legal orbit. Spokesman of the Legal Affairs Office of the State Council said the goal of this regulation is to set guidelines for the reconstruction and provided an
important legal ground for the rebuilding work of various departments in the disaster-hit region.

Instructions, proposals, regulations and measures made by the State Council were authorized to publish through Xinhua News Agent first and be reprinted by other media. The State Council and some other departments in the central government also held frequent press conferences to release decisions, plans, and monitored the progress of WPDRR. Local governments published plans for WPDRR according the instructions of the top leaders and state council right after the disaster relief of Tangjiashan quake-induced lake. The general plan and detailed working plan made by local governments were also informed to the public in order to demonstrate strong commitment to rebuild. The immediate public commitment to rebuild essentially upstaged the stories about sorrow and blame and established the public’s trust in the government in WPDRR.

**Action of rebuilding (plan, progress and completion)**

Action of rebuilding refers to enactments of rebuilding plans, progress of operations and final achievements of rebuilding work. How the communities were going to be rebuilt, how to raise funds, who would participate in the reconstruction, what the process was and when it was going to be completed? All these questions were of great public’s interest and need to be answered in a truthful manner. The major theme of the PR campaigns of WPDRR was about the plans, policies, regulations, procedures, progress, and completion of reconstruction. The government made information of WPDRR open and transparent to the public through media and kept updated the community with the progress.
It is vital for the action of rebuilding to be visible to the public during the recovery phase through media, direct observation, or participation. A major public interest being targeted by the communication campaigns was about what the governments are going to do and what has been done. This communication is to keep the confidence in and support of the community. Ground-breaking ceremonies, three anniversaries of the earthquake, and the second year and third year completion of the reconstruction were the focal points reported by the media. Media reports focused on different areas, including residential housing, public facilities, health care, employment promotion, medical service, problems of the farmers who lost cultivated land in the disaster, and rural urbanization. General plans, strategies and detailed procedures were also explained by the media. The progress and accomplishment were the biggest news of the media. Projects of some counties such as Beichuan were selected as typical examples and received intensive media attention.

The recovery efforts were not limited to material reconstruction, but also focused on social recovery such as family rebuilding and welfare services for the aged, orphans and disabled people. Media reported the government policy of assisting families by allowing those who lost their only child to reproduce. The governments required their healthcare departments and public medical facilities to provide free consulting and technical service to the victims who lost their children. Media intensively reported some successful cases and depicted their new family lives.
**Virtues and values**

Virtue ethics and values were what the PR campaigns fell back on in both initial response and recovery phases. Previous studies of DR documented virtual and value-based discourse in successful crisis renewal (Reierson, 2009; Seeger, 2001; Seeger & Ulmer, 2003; Ulmer, 1989; Ulmer & Sellnow, 2002). According to these studies, crisis-erupted organization or community was reported to feel it strength in healing and recovering through narratives of virtues and core values. In the case of PR campaigns of WPDRR, the government and community virtues and values were communicated by leaders, heroes, and media practitioners.

Some virtue ethics being emphasized in the campaigns included responsibility and accountability of the governments, professionalism and self-sacrifice of the responders and constructors. Media has profoundly portrayed that the government officials and employees held to their positions in earthquake and reacted to the disaster according to their obligations. There were news stories well-spread talking about how many party members and government cadres in the disaster-hit area were affected by the earthquake themselves, yet they didn’t choose to take care of themselves or their families and provided the most-needed services to the community. Some of them who had close family members died or missing didn’t leave their positions in the initial response and demonstrated their strong work ethics in the disaster. They are portrayed in the media as responsible and reliable in the crisis situation.

Moreover, there were stories being reported by the media to describe how professional and selfless responders were. For example, media told a story of a police
officer sacrificing his son’s life and saving another 50 students. His name is Li Guolin. He survived the earthquake and rushed to his son’s school to save his son. He found his fifteen-year old son trapped in the lower level of the collapsed structure, and there were many other students trapped in the upper level. Based on his professional training, he knew that he had to save the lives in the upper level though his son begged him to rescue him first. The officer made a tough decision and organized the survivors to start rescuing people trapped in the upper level. He worked 24 hours for three days rescuing other kids while his son’s crying faded into silence. When he finally reached him, the kid was dead of suffocation. The heart-breaking story was widely broadcast on the media and Li was regarded as a role model for professionalism and self-sacrifice.

Values are the larger principles people have learned, which then inform ideals, norms, and goals that exist throughout a given society, culture, or community. Values could vary in different communities. During the Wenchuan earthquake response, humanistic care was a key value that directed how people think and feel about the rescue and recovery work. The public information departments made a key word of “people-oriented” for the media to use when talking about government policies and principles. Officials also made such public slogans as “saving life is our priority work.” At the May 15th press conference, in responding to a question about when the government would consider giving up rescuing victims still buried in the collapsed buildings, Deputy Minister of Health Gao Qiang simply replied: “Never”. Four days after the earthquake, Premier Wen stood in the rubble and urged the rescuers “as long as there is a glimmer of hope, we'll be fully committed to the rescue operations.”
The humanistic value presented in the initial response was carried on in the recovery phrase. The governments claimed that the post-disaster reconstruction was people-oriented and would focus on recovery and improving residents’ lives. Premier Wen pointed out that the fundamental interests of the disaster-afflicted people are regarded as the top priority in WPDRR by fully soliciting their opinions, protecting their legitimate rights and prioritizing and resolving problems closely related to their daily lives. Media reported that governments had provided financial support for the residents to rebuild their houses in the villages and detailed measures include providing grants to every household, free loans for five years, free design and technical support. A compliment was synthesized by the public information departments and well-spread through the media which comments that the rebuilt communities are “the most beautiful structures are resident housing; the most reliable ones are schools; the most modern ones are hospitals; the most satisfied are the residents” (government documents).

Community values were also advocated such as the strong capability of personal resilience. Some farmers posted slogans such as “make one’s own efforts, drop one’s own sweat, do one’s own job” “with hands, feet, and life, all difficulties can be overcome”. These slogans were first captured the news reporters and were then selected by the government as an input in the advocacy machine. Resilience and being adamant were believed to be important values to encourage the community members to stand on their own feet and make efforts themselves to rebuild their homes. National cohesion was another value embedded in the history of disaster response and was often advocated in disaster response in China. Sentences such as “one in trouble, all to help” “we are heart to
heart in the whole nation” “we make our passage together” “overcome the difficulties
together” “Unity is strength” were frequently quoted in government public statements
and media reports.

**Corrective and innovative action**

Corrective and innovative actions are steps for an organization to take in order to
prevent future crises (Benoit, 1995). DR usually made explicit calls for originations to
learn from the mistakes of the past and make something innovative for the challenged
system (Seeger & Griffin Padgett, 2010). In the case of WPDRR, the PR campaigns
included topics about procedures and actions taken to minimize the risk in the future.
Immediate corrective and innovative actions were evidenced by the updated regulations
of prevention and mitigation of earthquake disasters. The revised and newly added law
articles were particularly made addressing issues emerging in the earthquake such as the
pre-disaster quality problem of school construction in the disaster area. The new law set
up a much higher standard for the safety and reliability of the public facilities and
residential housing and required responsible parties to increase preparedness for future
disasters.

The cascading effect of Wenchuan earthquake keeps threatening the disaster-hit
area. Aftershocks, landslides, debris flows and floods associated with the Wenchuan
earthquake are severe hazards challenging the governments and communities. The
communication campaigns gave special attention to showing how government protected
the surviving community from the secondary disasters with a better warning system and
proactive actions. Disaster relief of Tangjiashan quake-induced lake was selected as a
focal point for the governments and media to advocate to the public. As of May 27, 2008, 34 lakes had formed due to earthquake debris blocking and damming rivers and Tangjiashan quake-lake was one of them. The lake is 3.2 km upstream from the Beichuan County seat and it was feared that the blockages would eventually crumble under the weight of the ever-increasing water mass, potentially endangering the lives of millions of people living downstream.

Media intensively reported how the governments sent responders to do research on the hazard, how the decision was made by the disaster relief committee, and how the operators overcome difficulties one after another and finally released the floodwater. On May 23, 2008 Premier Wen went to oversee the safety of the Tangjiashan quake-induced lake by helicopter and instructed that "the most important thing is to ensure there are no casualties". On May 25, about 1,800 armed police officers and People's Liberation Army (PLA) soldiers hiked through mountains and reached Tangjiashan quake-lake. Meanwhile, millions of residents living downstream were evacuated. The relief committee decided on a plan of blasting and diversion of the flood. The relief workforce dredged a canal and successfully released the flood water on June 10.

Furthermore, great importance has been attached to legislation regarding disaster prevention and reduction. The Central government has enacted a number of laws and regulations and institutionalized disaster reduction efforts. The Law of the People's Republic of China on Protecting against and Mitigating Earthquake Disasters was issued and put into effect in December, 2008. This law was adopted more than ten years ago on December 29, 1997. The number of articles in the Law has been nearly doubled, from 48
to 93, and two new chapters have been added, on planning for protection against and
mitigating earthquake disasters and on supervisory control. The measures in the law
require governments to incorporate the work of protecting against earthquakes and
mitigating earthquake disasters into their respective economic and social development
plans, and the funds were required therefore to be included in their respective annual
fiscal budgets.

The revised Law stipulates that quake-proof standards for buildings must be
higher for public structures such as schools and hospitals than those for other local
buildings. Effective measures should be adopted to strengthen the capacity of existing
buildings to withstand earthquakes. There is also a newly added requirement for schools
to give instruction on earthquake response and mandatory rescue training to foster
students’ safety awareness and their capacity to rescue themselves and others. News
media according to the law are responsible for issuing public interest announcements on
earthquake disaster prevention and response. The amended law also requires local
governments to teach villagers about earthquake emergency response and to conduct
drills to improve their safety awareness and ability. The revised law was disseminated by
the media widely to the public in hope of showing governments’ self-reflective
meditation and decisiveness responding to a disaster.

The corrective and innovative actions of the governments could help maintaining
the positive reputation established in the initial response and strengthen its image of
being responsible and proactive. Communication of these actions was believed to
enhance a perception of preventive, long-term change and renewed social legitimacy (Sellnow & Seeger, 1989).

**Community and personal transformation, restructuring and change**

DR framework usually includes long-term transformation and changes of ways of thinking (Littlefield et al., 2009). Media coverage from the second year of WPDRR regularly talked about the spiritual and cultural advancement of individuals and communities involved in the disaster. This DR theme discussed how disaster made individuals stronger and made the relationship in the community more beneficial. Narratives of the transformation, restructuring and change introduced that the earthquake had reshaped survivors’ ways of thinking and inspired them to seek for meanings of living. It was believed as learning of how to live a life from the death.

A topic being observed in Wenchuan post-disaster communication is the introduction and discussion of a different worldview and a closer relationship among individuals and communities that experience the earthquake. Personal ascension and community cohesion were indicated as outcomes of the Wenchuan earthquake in Sichuan. There were reports about how the disaster has taught individuals about humility, magnanimity, benevolence and meaning of life. For example, media stories said that community members were less likely to have conflict with others since they more appreciate their companions. Facing the death made survivors think about what they live for. Civilian interviewees in front of the camera in news reports said they work much harder than before to make a better home and community and all they did was for the dead.
Transformation and change also happened beyond the disaster community. Four volunteers from non-disaster villages told the media that they experienced self-development in the Wenchuan response. These four young people used to be jobless and lived idle lives before the earthquake. During the disaster relief, they volunteered in a funeral home and helped the victims find their dead family members. They learned how to accomplish a job, comfort others, and overcome difficulties in the work. After they got back from the disaster area, their families and neighbors were happy to see their better behavior, and they told the media that they started to think seriously about their future. Media also reported an ablution of the culture—the entire nation participated in donations. Most organizations and citizens have gotten involved somehow in support for the disaster area by donating time, money and services. The burst of collective good will was believed in the media to be beneficial to the whole community.

This learning experience would help the survivors brace themselves to meet the challenges in WPDRR and what is more important, assist them to overcome difficulties of survivor guilt. A new meaning of life and arduous renewal work was framed by the DR campaigns arguing that those who survived should live a happy life for those died. Additionally, emphasizing the improved relationship in the community may also help to break the hedge to ask for help from each other.

**DR Characteristics**

**Being immediate, transparent and open**

The Chinese government won wide praise for its rapid and effective response to Wenchuan earthquake (Guobin, 2010), and its unprecedented emphasis on open, timely
and transparent communication with the public contributed to success of its disaster response (Chen, 2009). Learning from the failure of SARS crisis response, the Chinese government had established a disaster response system in 2004 and Wenchuan earthquake proposed a comprehensive test of the evolved model. Though local responders complained about the lack of detailed measures in the plan, the higher levels of the government (state and province) announced to implement the emergency plan. According to the emergency plan, responsible parties bear the obligation to inform the public with timely, accurate and full information about the disaster. Crisis communication in the Wenchuan earthquake partially demonstrated the effectiveness of the emergency plan. And after 2008, local governments made their local disaster response plan to specify procedures and measurements.

The public information departments in local governments reacted to the Wenchuan earthquake in a timely and open manner according the pre-disaster emergency plan. Their immediate and open strategy was confirmed by the Central government and was carried to WPDRR. Li Changchun, the chief of the public information committee of CPC, had emphasized that “disaster relief communication should be timely, accurate, open and transparent” in the meeting for state media. The Xinhua News Agency and CCTV were the first media to publicize disaster briefings in the initial response and were also the most important information sources for instructions, regulations, plans, and measures of WPDRR made by the central government. The Xinhua News Agent sent out the first news flash 20 minutes after the disaster struck. China Central Television (CCTV) broadcast the news about 10 minutes later. About one hour after the strike, CCTV started
to report the disaster live. On 22:00 May, 12, 2008, the same day of the strike, CCTV had two channels broadcast special programs on the earthquake.

Many state reporters were sent to the front line of disaster relief, such as CCTV sent 150 reporters and Xinhua News sent more than 100 reporters. Xinhua News has published over 4600 news on the earthquake within one week. From May 19 on, the State Council Information Office spokesperson began to release the latest updates on the quake disaster. Each of the 30 updates contained the latest statistics on the death toll and the numbers of wounded and missing, as well as of those already rescued and removed to safety. Also, the latest rescue operations and efforts were reported. While the rescue work was going on, the state media started to report information about recovery. Usually, the state media sent out public statements about WPDRR immediate after meetings of the government. Local media would refer reports of the state media for decisions and requirements of the central government.

The immediate communication to the public by local governments and media was largely based on instant judgment and professional quality. Officials of the Provincial Government ran out of their office building in the earthquake and held the first disaster relief meeting on the lawn square in front of the province hall. In the meeting, the chief of the CPC Sichuan Committee Liu Qibao required the Province Earthquake Bureau to inform the public about the earthquake frequently. About 30 minutes after the earthquake, the Province Earthquake Bureau held the first press conference to deliver a disaster briefing about the earthquake. In the following ten hours, the Province Earthquake
Bureau held another five press conferences to update the information about the
earthquake as well as disaster relief.

“Being open, direct and helpful” were made buzz words and appeared in all
government spokespersons’ opening remarks. The local media to different degree were
all affected by the earthquake, and the personnel made all efforts to inform the public at
their earliest opportunity. According to public information officers and media chiefs
being interviewed, the speed, openness and transparency of public communication in the
Wenchuan earthquake response had far exceeded any previous level. All the public
information departments in the three levels of government had established Disaster Relief
News Centers immediately after the earthquake occurred and claimed that they were the
only authoritative information source about the disasters. The Disaster Relief News
Centers had actively provided information and service to internal and external media. The
chief editors in local media said there were not many constraints on what can and what
can’t be reported as long as it was accurate. Though there was more censorship from the
governments on the media reports, information was rarely blocked as long as it presented
the known facts.

Immediacy, openness and transparency of disaster communication were practiced
in WPDRR on the local level. Information of reconstruction plan, progress and
completion was released in a quick and direct manner. After the initial response phase
public attention has concentrated on how the governments can help the communities to
rebuild, what the new communities would look like in the future and how the
governments distribute the recovery resources among different districts and industries.
The public information departments of local governments decided to keep open to the public all of the rebuilding master plan, regulations, detailed procedures, progress, and accomplishment. And the local media worked as truthful information resource for the community.

**Being proactive and positive**

Based on the analysis of the selected media reports, researcher found all these reports on WPDRR in the local media were extremely positive and optimistic. These positive narratives were believed to enhance the positive thinking in the community and facilitate renewal. When asking why there weren’t any criticism or issues being reported about WPDRR, one of the media chief editors answered “we are extremely busy broadcasting WPDRR which is overwhelming and we don’t have much time to look at the downside.” One public information officer introduced that there were some rare cases when external media challenged the misconduct in WPDRR, for instance, the quality problem of few residential houses in a small town. He said that the government acted quickly and sent an investigation team to detect the problem and generate solutions. The resolution of this problem has been broadcast by the Xinhua News Agent.

The proactive and positive narratives of WPDRR allowed the government and media to devote most of their attention and efforts to reconstruction. Government documents showed that the provincial government required all the local media in Sichuan to focus on the positive side when reporting the earthquake throughout the rescue and recovery phases. The recovery plans and efforts were communicated in such a positive manner that the affected communities were urged to grasp the opportunity following the
disaster to adjust the industrial structure, plan new residential districts, construct better public service facilities, and develop the local economy. Instead of complaining about the constraints associated with damages, the government officials emphasized “grasp the opportunities” frequently. External help, humanistic care, national and international support, and virtues of the survivors were emphasized by the media in order to form an encouraging and supportive environment for the disaster-hit area. The mass media kept updating the public about the process of reconstruction. After two years of reconstruction, survivors began to move into new housing. The newly-built communities were portrayed by the media as modern, well-organized and efficient.

**Being prospective and future-focused**

Traditionally, post-crisis discourse has a retrospective focus because of its efforts to justify the past. PR campaigns launched after the Wenchuan earthquake were innovative in term of focusing on the future, delineating how crisis-induced exigencies can be overcome. Based on the content analysis, researcher found the communication campaigns launched after the earthquake mainly talked about what happened in the disaster, what the governments did in responding and what they were going to do in the future. Issues pre-existing, such as failure of warning system and quality problem of the disaster-hit structures, were largely missing in the public discourse. Though parents of kids that died in Beichuan middle school requested investigation of the pre-existing quality issue of the school building, the governments preferred to settle the problem with the parents privately.
One of the public information officers introduced the employment of a “cooling down” strategy which was to publish the investigation results within a local scope and require the government-owned media not to follow up on the news. “The builders were died in the earthquake, relevant documents were all missing and investigators didn’t find any evidence of a quality problem in the ashes.” The officer said, “we feel it meaningless to keep on investigating this issue and prefer to focus our efforts on reconstruction and prevention of future disasters” (personal interview). Ignoring the cause and blame in the disaster worked out quite well in this case and the governments were able to distribute all their resources to complete WPDRR fast.

Only a few non-mainstream media raised questions about the problems in the disaster response, such as the weakness of earthquake monitoring system and communication sectors, as well as problems of architectural quality. Explanations and interpretations of what damage has been caused by misconduct and who was at fault were absent in the main stream news reports. By largely ignoring questions of crisis induced legal liability and image damage, the government was freed to spend more time and energy, focusing on what would happen and how the nation and the communities would move forward.

*From provisional to strategic*

Several previous studies have reported that DR can be characterized as provisional and instinctive in initial crisis response (Reierson et al., 2009; Seeger, Ulmer, & Sellnow, 2005; Seeger & Griffin, 2010; Ulmer, Seeger, & Sellnow, 2007). According
their studies, initial DR was natural and honest with less formulated strategy; instead, it expressed the good will of the responsible entity.

Findings in this project articulated that DR did show its instinctive nature in initial response to the Wenchuan earthquake, yet it was not limited as non-strategic in the recovery phase. Communication in the initial response toward the the Wenchuan earthquake was based on a natural instinct to reconstitute order following losses. The public information departments being interviewed disclosed that though pre-promulgated emergency plans were employed, details in managing the massive disaster were pretty much missing. The initial response was fundamentally based on instinct within the scope of emergency plans and public information officers were driven to create innovative response strategies as they reacted to the earthquake.

After stepping into the recovery phase, the Chinese government has relatively more time in planning the PR campaigns. Public information officers and media chiefs had carefully constructed strategies in DR in order to support WPDRR. Starting in August 2008, the public information department of the provincial government had organized over 30 planning meetings with public information departments of the City and County Government and the media chiefs. They did research on the government policies and instructions from the top leaders of governments to decide the major themes for the communication campaigns. They designed 45 campaigns with different themes such as “Be people-oriented, to endeavor and be grateful” “New appearance of the disaster-hit area, huge improvement of residents’ lives, gratitude and confidence in the community” “Basically complete the three-year task in two years” “From tragic to magic” and so on.
**Being restorative and dialogic**

The PR campaigns of WPDRR were planned to facilitate dialogue between the public and crisis leaders, and to help victims and the general public to make sense of the disaster rescue and recovery. Restorative rhetoric was identified in the campaign materials such as “a culture of gratitude”. A culture of gratitude provides a stairway for upward spirals in relationships, emotions and performance. Expression and action of gratitude in the disaster-hit communities were first captured by the media. A picture of a senior lady holding a big hand-written Chinese word “thanks” was widely and repeatedly shown on TV, newspapers and the Internet. Stories about how some of Sichuan disaster survivors tried to support disaster-affected communities in other province years later were reported by the media. Public information officers decided to synthesize all these expression and action of gratitude into “a culture” and advocate it vigorously in the communities.

**Being quick resolving monetary and legal issues**

Case studies have found the successful DR application was associated with resolving monetary and legal issues quickly. In one renewal case, Clarke College had one-third of its buildings burned down in 1989 and then received a 9.7 million paycheck from the insurance company. Blame or a lawsuit were absent since the college had not committed any wrongdoing with the fire (Ezzeddine, 2006). In a 1994 salmonella outbreak caused by Schwan’s ice cream, the company had offered to pay medical expenses early in the crisis and had settled with the victims (Sellnow et al., 1998). In the cases of fire disaster at Malden Mills in 1995 and Cole Hardwoods in 1998, their CEOs
quickly announced that they were going to continue to pay checks and benefits to the
employees suggesting that the companies had strong financial status (Seeger, 2001).
Neither company was found culpable for the disaster, and both of them dismissed
questions of crisis-induced legal liability (Seeger, 2001).

The local government received a financial allocation of about 300 billion RMB
(over 46 billion in U.S. dollars) from the central government and donation of 70 billion
RMB (11 billion in U.S. dollars) from the whole nation for rebuilding. Since the overall
budget for the post-disaster reconstruction was about 1,700 billion RMB (over 46 billion
in U.S. dollars), there was still a huge funding gap. On May 26, 2008, President Hu
announced that considering the huge damage in the disaster-hit area, the State Council
would help the community build partnerships with other provinces and Sichuan disaster-
hit areas would receive one-on-one support from the partner provinces. On June 11, 2008,
the State Council published “WPDRR Pairing Aid Plan” and recruited 18 provinces to
build partnerships with 18 earthquake-damaged counties in Sichuan. This plan required
the aid provinces to send personnel and no less than 1% of their fiscal revenue to assist
the Sichuan reconstruction. It was the major strategy to resolve the money issue in
WPDRR.

The nature of the Wenchuan earthquake determined that the governments were
not in the center of the blame. In fact there were some challenges to the governments’
pre-disaster prevention measurements and quality issues stemming from building
collapses in the disaster, yet the governments required the government-owned media not
to focus on negative issues. For some parents who appealed for quality issues of school
buildings, the governments chose to settle with these parents with compensation privately. With strong financial support, being free from disaster-induced blame or illegal conduct, the governments were able to put all their time and energy into WPDRR.

**DR objectives**

Based on interview transcripts and government documents, researcher learned that the provincial government launched the campaigns with clear purposes of 1) promoting awareness of the WPDRR policies, plans and procedures, 2) obtaining compliance and cooperation from the public, 3) healing the grief in the disaster-hit communities. These goals were properly passed to the provincial media and subordinate levels of government. Public information officer and media chief editors in the City Government mainly agreed with these objectives and distributed their efforts accordingly to achieve these goals. The County Government and media had less agreement with the DR objectives in their campaigns because their major goal is to build support network with the external helper and raise funds for reconstruction. Therefore they focused their time and efforts on the first objective and distributed less energy to the rest of two.

**Summary of the findings for RQ1**

Overall, campaign materials provided evidence of application of DR framework in the WPDRR campaigns. Instead of covering up the damages or response procedures, the Chinese government and government-owned media communicated to the public about the disaster relief and recovery in an immediate and open manner. Messages sending out to the public were constituted by topics such as strong leadership, heroes, sense-making of opportunities, commitment to rebuilt, action of rebuilding, virtues and values,
corrective steps, and community change. These themes, though being adopted instinctively in the initial response were strategically planned in the recovery phase. The governments and media proactively and positively explained issues that involved in WPDRR and attempted to generate restorative dialogue with the audience. The application of DR was based on the quick resolution of finding and legal problems. The major goals of PR campaigns were to inform, to persuade and to comfort the public.

**Answers to Research Question Two**

The second research question asked: how effective were the PR campaigns of WPDRR launched by the Chinese government? Data for this question was collected though a community survey, interviews and document collection. Perspectives of officials, media practitioners and community residents were all acknowledged in the campaign evaluation. Content analysis on the interview transcripts and campaigns documents mainly focused on the senders’ self-evaluation of their communication efforts in WPDRR and statistical analysis of survey data explored the role of the public in determining the PR outcome.

Analysis of the data was guided by the DRE model (see Figure 1). The model proposed two assumptions as 1) application of DR was associated with the publics’ perceptions of renewal efforts and 2) publics’ perceptions of renewal efforts was associated with the relationship between the public and the responsible entity in crisis renewal. In this project, three steps of measurement were included to test the DRE model in the case of WPDRR.
First, content analysis on the interview transcripts, campaigns documents and media reports was conducted to generate inferences of how effective the PR campaigns were to influence publics’ perceptions of WPDRR. Second, guided by the DR objectives, three publics’ perceptions were measured including situation awareness of, and attitude agreement on plans, policies and procedures of WPDRR, as well as perceived care and concern from local governments in disaster recovery. The ultimate outcome of the campaigns—relationship was measured by three indicators including publics’ satisfaction, trust and support to the WPDRR efforts made by local governments. Third, a statistical test of association between publics’ perceptions and the relational outcome was conducted to see how much publics’ perceptions of WPRDD had influenced publics’ relationship with local governments. Following paragraphs are organized in a sequence of demographics, publics’ perceptions, relational outcome, and a test of the DRE model.

**Demographics.**

A total of 204 adults living in The county town of Beichuan participated in the survey. The sample contains females (56.4%) slightly more than males (43.6%), with a mean age of 45.24 ($SD = 16.94$). Ethnically, the composition of the sample was 69.1% Qiang, 28.4% Han, 2% Zang, and 0.5% Hui. 63.2% of participants were married, 18.1% widowed or widowers, 15.7% single and 2.9% didn’t provide answers. With regard to education, 11.8% of the sample had attained a Bachelor’s degree, 15.2% had completed college for professional training; 11.8% had completed high school; 11.3% had completed technical secondary school; 23.5% had completed middle school; 19.1% had completed primary school and 7.4% had no school.
In terms of employment, 37.7% were employed for wages, 20.6% were retired, 9.3% were students, 8.3% were out of work and live by charity, 6.4% were self-employed, 5.9% were out of work and looking for a job, 3.4% were homemakers, 2.5% were unable to work, 3.4% were out of work and have social security, 1% were out of work but not currently looking for a job, 0.5% didn’t answer, and 1% didn’t know. In the sample, 8.5% had a household income less than 800 RMB (about 127 US dollars) per month, 12.1% had a household income between 800 and 1499 RMB (about 127 to 238 US dollars) per month, 18.1% had a household income between 1500 and 2999 RMB (about 238 to 476 US dollars) per month, 21.6% had a household income between 3000 and 4499 RMB (about 476 to 714 US dollars) per month, 25.1% had a household income between 4500 and 5999 RMB (about 714 to 952 US dollars) per month, 12.6% had a household income between 6000 and 7499 RMB (about 952 to 1190 dollars) per month, 1.5% had a household income between 7500 and 8999 RMB (about 1428 dollars) per month and 0.5% refused to answer.

Publics’ perceptions

A major objective of the communication campaigns launched by the Chinese government regarding to the Wenchuan earthquake was to inform the public about plans, policies, and procedures of WPDRR, therefore, how much participants knew about the general plan, related polices, and detailed procedures is crucial to answer the question about how well did the campaign to achieve its first goal. Next, local governments advocated information of WPDRR in order to generate a social agreement. How much participants agreed with the general plan, related polices, and detailed procedures is
another question included in the test to see the persuasiveness of the campaigns. Finally, since public information officers introduced that emotional and physiological renewal was a part of the renewal campaigns, how much participants received care and concern from local governments is also evaluated. Results are illustrated at following.

**Situation awareness**

Factorability of the three items was examined (KMO = .71, chi-square of Bartlett's test (3) = 226.332, p < .001, N = 204) and suggested the need for factor analysis. The three items were loaded in one factor which explained 74.32% of the variance. They had similar factor loadings between .84 and .88 and reliability test (Cronbach’s alpha = .83, N = 204) indicated internal consistency of the three items. The three items of participants’ awareness each used a consistent set of response options so their scores averaged to generate the overall situation awareness of WPDRR (Mean = 5.08, SD=1.77). The average score made it convenient to interpret its meaning according to the 11-point scale. This score indicates that on average, participants were aware of 50.8% of WPDRR.

**Attitude agreement**

Factorability of the three items was examined (KMO=.72, chi-square of Bartlett’s test (3) = 399.648, p=.000, N = 203) and suggested the need for factor analysis. The three items were loaded in one factor which explained 83.54% of the variance. They had similar factor loadings between .89 and .94 and reliability test (Cronbach’s alpha = .90, N = 203) showed internal consistency of the three items. The three items of participants’ agreement each used a consistent set of response options so their scores averaged to
generate the overall attitude agreement of WPDRR (Mean = 7.64, SD=1.87). This score indicates that on average, participants agreed with 76.4% of WPDRR.

**Perceived care and concern**

Factorability of the three items was examined (KMO=.7, chi-square of Bartlett’s test (3) = 339.156, p=.000, N = 204) and suggested the need for factor analysis. The three items were loaded in one factor which explained 80.15% of the variance. They had similar factor loadings between .85 and .93 and reliability test (Cronbach’s alpha = .86, N = 204) showed internal consistency of the three items. The three items of participants’ perceived care and concern each used a consistent set of response options so their scores averaged to generate the overall perceived care and concern from local governments (Mean = 3.76, SD=1.56). This score indicates that on average, participants had relatively high-level perception of government’s care in WPDRR.

**Relationship between publics and the governments**

**Indicators of the outcome variable**

*Satisfaction.* Factorability of the nine items was examined (KMO=.81, chi-square of Bartlett’s test (36) = 2.302, p=.000, N = 195) and suggested the need for factor analysis. The nine items were loaded in one factor which explained 72.77% of the variance. They had similar factor loadings between .81 and .91 and reliability test (Cronbach’s alpha = .95, N = 195) showed internal consistency of the nine items. The nine items of participants’ satisfaction with local government each used a consistent set of response options so their scores averaged to generate the overall satisfaction with local
governments (Mean = 3.93, SD=1.39). This score indicates that on average, participants had high-level satisfaction with local governments’ efforts in WPDRR.

**Trust.** Factorability of the three items was examined (KMO=.7, chi-square of Bartlett’s test (3) = 283.785, p=.000, N = 201) and suggested the need for factor analysis. The three items were loaded in one factor which explained 77.76% of the variance. They had similar factor loadings between .85 and .92 and reliability test (Cronbach’s alpha = .83, N = 201) showed internal consistency of the three items. The three items of participants’ trust in local government each used a consistent set of response options so their scores averaged to generate the overall trust in local governments (Mean = 3.76, SD=1.51). This score indicates that on average, participants had relatively high-level trust in local governments’ efforts in WPDRR.

**Support.** Factorability of the three items was examined (KMO=.68, chi-square of Bartlett’s test (3) = 412.723, p=.000, N = 200) and suggested the need for factor analysis. The three items were loaded in one factor which explained 83.5% of the variance. They had similar factor loadings between .87 and .96 and reliability test (Cronbach’s alpha = .87, N = 200) showed internal consistency of the three items. The three items of participants’ support for local government each used a consistent set of response options so their scores averaged to generate the overall trust in local governments (Mean = 4.06, SD=1.32). This score indicates that on average, participants had high-level support for local governments’ efforts in WPDRR.

**The relational outcome**
The relationship between participants and local governments was further generated by three indicators (satisfaction, trust and support). These three indicators were selected based on the suggestions of the literature (see Chapter Two). Factorability of the three items was examined (KMO=.77, chi-square of Bartlett’s test (3) = 589.834, p=.000, N = 191) and suggested the need for factor analysis. The three indicators were loaded in one factor which explained 91.4% of the variance. They had similar factor loadings between .95 and .96 and reliability test (Cronbach’s alpha = .95, N = 191) showed internal consistency of the three items. The three indicators of the relational outcome each used a consistent set of response options so their scores averaged to generate the overall relationship between the public and local governments (Mean = 3.95, SD=1.33). This score indicates that on average, participants had favorable relationship with local governments.

**Test of the model**

**Assumption One**

In this section, the researcher tried to establish an association between DR input and DR outtake. Interview transcripts and campaign materials were reviewed for hints of association between the enactment of campaigns and their achieved objectives. Public information officers had reported a big success in their PR campaigns which they believed is revolutionary in governmental public relations in Sichuan. Annual reports of public information departments introduced the campaigns as “a soft power” in facilitating disaster renewal (government document). The media practitioners confirmed and applauded for the contributions of PR campaigns in accomplishing WPDRR. They
believed that the PR campaigns were so successful in achieving the objectives that they even went beyond what they can expect (personal interview).

Inference of the DR contribution to the publics’ perceptions on WPDRR was generated based on three things. First, documents showed that the public information departments in Chinese governments claimed to be the only authority to publish information of WPDRR. Second, the mainstream media are all government-owned in China and actively involved in the PR campaigns launched by the governments. Third, there are 98.5% of the participants reported that their major information resource of WPDRR is the government-owned media. Though, there may be some other factors, the PR campaigns could be one of the most powerful contributors to the publics’ perceptions of WPDRR.

Assumption Two

In this section, the researcher did statistical analysis on the association between DR outtake and DR outcome. In order to further prove the effectiveness of the communication campaigns, relationships between publics’ perceptions and the relational outcome variable were analyzed based on the DRE model proposed in the literature review (see Figure 1). Awareness of WPDRR, agreement on WPDRR and perceived care and concern from local governments are the three independents variables (IVs) and the relationship between the public and local governments is the dependent variable (DV). If the predicting relationship between IVs and DV is found, it means that situation awareness, attitude agreement and perceived care and concern can explain why participants are different in their relationship with the local government. Demographics
and individual renewal status (including physical, financial and family relationship renewal) are included in the model as exogenous variables.

Physical renewal was measured by subtracting the pre-disaster physical status from the present physical status. For example, if the pre-disaster physical status is 5 out of 5 and present physical status is 4 out of 5, the physical renewal score is -1 (=4-5). In the same way, financial renewal was measured by subtracting the pre-disaster financial status from the present financial status and family renewal was measured by subtracting the pre-disaster family relationship status from the present family relationship status.

Some demographical variables (sex, ethnicity, marital status and employment status) are nominal and their influence on the outcome variable was tested through One-way ANOVA.

First of all, a description analysis of variables in the model was conducted and the results are presented in Table 9. Variables were then inputted into bivariate correlation program in SPSS to learn how variables were co-vary and the results were displayed in Table 10. According to the correlation matrix, awareness, agreement, perceived care and concern, relationship, age, educational level were significantly correlated with relationship while household income, physical renewal, financial renewal, and family renewal were not significantly correlated with the outcome variable.

Awareness, agreement, perceived care and concern, relationship, age, and educational level were then inputted into Multiple Regression in SPSS. The relationship between the public and local governments served as the outcome variable while others served as predictors. Correlation coefficients for each variable were shown in Table 11.
Using the enter method, a significant model emerged and explained 66.5% of the variance of the relational outcome (R square = .67, $F(5,184) = 76.06, p < .001$). Two significant predictors were found as attitude agreement and perceived care and concern. Specifically, participants’ agreement on WPDRR uniquely explained 3% of variance in relational outcome (Beta = .12, t(184) = 2.48, p < .01) and participants’ perceived care and concern uniquely explained 57% of variance in relational outcome (Beta = .78, t(184) = 15.59, p < .001). Age, educational level and awareness didn’t have significant direct contribution to the variance of the outcome variable.

<table>
<thead>
<tr>
<th>Table 9 Description of Variables in the DRE Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
</tr>
<tr>
<td>Awareness</td>
</tr>
<tr>
<td>Agreement</td>
</tr>
<tr>
<td>Perceived Care and Concern</td>
</tr>
<tr>
<td>Relationship</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Educational Level</td>
</tr>
<tr>
<td>Household Income</td>
</tr>
<tr>
<td>Physical Renewal</td>
</tr>
<tr>
<td>Financial Renewal</td>
</tr>
<tr>
<td>Family Renewal</td>
</tr>
</tbody>
</table>
Table 10 Correlation of IVs to the Relational Outcome in the DRE Model

<table>
<thead>
<tr>
<th></th>
<th>Pearson Correlation</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.19</td>
<td>.009</td>
</tr>
<tr>
<td>Educational Level</td>
<td>-.22</td>
<td>.003</td>
</tr>
<tr>
<td>Household Income</td>
<td>-.1</td>
<td>.156</td>
</tr>
<tr>
<td>Awareness</td>
<td>.22</td>
<td>.003</td>
</tr>
<tr>
<td>Agreement</td>
<td>.43</td>
<td>.000</td>
</tr>
<tr>
<td>Perceived Care and Concern</td>
<td>.8</td>
<td>.000</td>
</tr>
<tr>
<td>Physical Renewal</td>
<td>.025</td>
<td>.728</td>
</tr>
<tr>
<td>Financial Renewal</td>
<td>.131</td>
<td>.072</td>
</tr>
<tr>
<td>Family Renewal</td>
<td>.027</td>
<td>.711</td>
</tr>
</tbody>
</table>

Table 11 Correlation Coefficients for Variables in the Revised DRE Model

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Relationship</th>
<th>Awareness</th>
<th>Agreement</th>
<th>Perceived Care and Concern</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness</td>
<td>.216</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreement</td>
<td>.425</td>
<td>.204</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Care and Concern</td>
<td>.813</td>
<td>.312</td>
<td>.410</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.188</td>
<td>-.033</td>
<td>.230</td>
<td>.212</td>
<td>.659</td>
</tr>
<tr>
<td>Educational Level</td>
<td>-.214</td>
<td>.234</td>
<td>-.115</td>
<td>-.234</td>
<td></td>
</tr>
<tr>
<td>Awareness</td>
<td>.001</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreement</td>
<td>.000</td>
<td>.002</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Care and Concern</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Revision of the model

Though individual recovery outcomes were documented in health care as being related to relational satisfaction (Amyx, Mowen, & Hamm, 2000), no significant correlations between personal recovery conditions and the relationship (satisfaction, trust and support) have been found in this study. One possible explanation is that earthquake recovery is not only about personal resilience but also a collective effort of community rebuilding. Participants in this survey were able to go beyond their personal recovery outcomes and appraise the governments’ efforts in a broader view. Therefore, personal physical, financial and family relational renewal conditions didn’t significantly influence relational outcome in this case, so they were removed from the DRE model.

Gender, ethnicity, marital status and employment status were tested for how they may influence the relational outcome with governments. An one-way ANOVA was used and no significant results were found. Thus, there was no gender, ethnicity, marital or employment status difference in publics’ relationship with the three government bodies in this study. Household income was not significantly corrected with the outcome variable which means that participants’ evaluation of the governments’ efforts were not influenced by their income. Therefore gender, ethnicity, marital status, employment status and household income were removed from the model.
Since agreement on the renewal efforts and perceived care and concern have to be founded on the awareness of the WPDRR, it is possible that the influence of awareness, age and educational level was mediated by the other two predictors. Baron and Kenny (1986) suggested four complementary steps for assessing possible mediation relationship. were taken to test the possible mediation relationship. First, awareness was significantly correlated with the relational outcome \( (r = .22, p < .01) \). Second, awareness was significantly correlated with agreement \( (r = .2, p < .001) \) and perceived care and concern \( (r = .31, p < .001) \). Third, agreement and perceived care and concern predicted the relational outcome \( (R \text{ Square} = .67, F(2, 187) = 191, p < .001) \). Fourth, the effect of awareness on the relational outcome controlling for agreement and perceived care and concern was non-significant. Baron and Kenny’s fourth step is more complex and includes the following paragraph.

Awareness was inputted first as an IV and then agreement and perceived care and concern as IVs were inputted in step two. Relationship was inputted as the DV. The model was tested as significant (Step one, \( R \text{ square} = .05, F(1, 188) = 9.22, p < .01 \); step two, \( R \text{ square} = .67, F(2, 187) = 128.03, p < .001 \)). To future clarify the relationships between variables, the order of inputting IVs were reversed, that is, agreement and perceived care and concern were inputted first and then awareness was inputted in the next step as the third IV. The model was also significant but with different coefficients (step one, \( R \text{ square} = .67, F(2, 187) = 191, p < .001 \); step two, \( R \text{ square} = .67, F(1, 188) = 127.32, p < .001 \)). This result showed that entering awareness in the second step didn’t increase explanatory power.
According to the test results, the influence of awareness on relationship can be fully explained by the other two IVs—agreement and perceived care and concern. Thus, awareness (Beta = .12, p < .01, R square = .04) was an indirect predictor on the outcome variable and its effect was mediated by agreement and perceived care and concern.

Furthermore, since age and educational level were also significantly correlated with the relational outcome, they were also tested for possible mediation relationships following Baron and Kenny (1986) suggested steps. Results indicated that effects of age (Beta = 0.19, p < .01, R square = .03) and educational level (Beta = -0.21, p < .01, R square = .04) were mediated by agreement and perceived care and concern. That is, age explained 3% of the variance of the relationship indirectly through agreement and perceived care and concern, while education level explained 4% of the relationship indirectly through agreement and care.

Note that educational level was negatively correlated with participants’ agreement perceived care and concern, and the publics’ relationship with the governments. That means the more education participants had, the more critical they were toward the governments’ efforts in WPDRR. This result should be interpreted in the unique political and media context in China. Chinese government had a history of propaganda which was to manipulate the information to the public. Better educated people might be better aware of this history and therefore more alert to the persuasive nature of the PR campaigns of WPDRR. Plus, the more educated participants had reported more usage of the Internet (r = .53, p < .001, N = 204) which provides more freedom to access controversial information about WPDRR. For example, Chinese netizens criticized the Mayor of
Mianyang City, Tan Li for his wrong judgment of the damage caused by the earthquake in the initial response while this discussion was ignored by the traditional media.

Additionally, age was negatively correlated with educational level and positively related to participants’ agreement, perceived care and concern and publics’ relationship with the governments. These results may suggest that younger participants had more education and were more critical toward the governments’ efforts in WPDRR than older people. There is a prevalent trend in China that young generations are getting more and better education. It is both an outcome and driving force of social development. Government public information officers should understand this trend and prepare for the challenge.

After all, a revised model was proposed to map the direct and indirect relationships between predictors and the outcome variable (see Figure 2).
Figure 2 The Revised Discourse of Renewal Evaluation Model

**Answers to Research Question Three**

This project had proposed that the community had a significantly different relationship with the external assistants (top leaders, central government, aid provinces, donors and volunteers) than local governments (province, city and county). In the pilot study, the observed residents expressed less satisfaction with, trust in and support for the renewal efforts made by local governments than external assistants. These remarks expressed by the observed residents are contradictory with the government documents which manifested that 70% of the reconstruction achievement should be credited to local governments. The following paragraphs introduced results of T-tests that measure the difference among participants in order to figure out the reason for the difference. The
measurement was inspired by the revised DRE model. Interview materials were also provided to offer a possible explanation for the puzzle.

**T-test results**

Each participant was asked about their relationship (satisfaction, trust and support) with external helpers (top leaders, central government, partner province, donors and volunteers) and with local governments (province, city and county). The scores of the external and local relationships were inputted into paired-samples T-test. Results showed that on average, participants had a significantly more favorable relationship with external helpers ($M = 4.8$, $SE = .59$) than with local governments ($M = 3.8$, $SE = 1.54$), $t(201) = 10.87$, $p < .001$, $r = .46$.

According to the revised DRE model, perceived care and concern is an essential predictor for a relationship. A paired-samples T-test was conducted to learn the difference between participants’ perceived care and concern from external helpers and that from local governments. Results showed that on average, participants perceived significantly higher care and concern from external helpers ($M = 4.9$, $SE = .36$) than of local governments ($M = 4$, $SE = 1.33$), $t(185) = 10.62$, $p < .001$, $r = .46$.

According to the revised DRE model, agreement to the general plan, related policies and specific procedures is the second important predictor for relationship. A paired-samples T-test was conducted to learn difference between participants’ agreement on the general plan proposed by the top leaders and the Central government and their agreement on related policies and specific procedures made by local governments. Results showed that on average, participants indicated significantly higher agreement on
the general plan proposed by top leaders and the Central government (M = 8, SE = 1.91) than related policies and specific procedures made by local governments (M = 7.5, SE = 2), t(202) = 5.38, p < .001, r = .8.

According to the revised DRE model, awareness of the general plan, related policies and specific procedures is the second important predictor for relationship (Beta = .12, p < .01). A paired-samples T-test was conducted to learn difference between participants’ agreement on the general plan proposed by the top leaders and the Central government and their agreement on related policies and specific procedures made by local governments. Results showed that on average, participants indicated significantly higher agreement on the general plan proposed by top leaders and the Central government (M = 8, SE = 1.91) than related policies and specific procedures made by local governments (M = 7.5, SE = 2), t(202) = 5.38, p < .001, r = .8.

The results of the two T-tests are consistent with what has been proposed in the model. The participants’ perceived care and concern as the dominant predictor for relationship in WPDRR explains a lot of why the participants’ relationship is less positive with local governments and external helpers. The indirect predictor, situation awareness was unable to compare between external helpers (especially for top leader and the Central government) and local governments since WPDRR plans, policies and procedures were all mixed in the campaigns and were difficult for participants to specify in the original information recourses.
Interviews data

Public information officers interviewed for this project had disclosed a major theme of the communication campaign as “a culture of gratitude”. The content of the appreciation focused on thanks to the external helpers (top leaders, central government, aid province, donors and volunteers) and used some general terms such as “thanks to the nation, thanks to the whole people, thanks to the party”. A feeling of gratitude is an emotional arousal in acknowledgment of a benefit that one has received and can motivate the recipient to seek out their benefactor and to improve their relationship with him. Therefore, gratitude can significantly contribute a positive relationship. A puzzle of the communication campaigns is that the local governments were not included when promoting gratitude. Although local governments were largely mentioned for their contribution to the plan, progress and completion of the post-disaster reconstruction, there were less communication efforts to express their emotional connection with the community than those of the external helpers.

Additional Findings

This section illustrated additional findings related to WPDRR themes, characteristics, effectiveness and obstacles. Though not guided by the literature review, analysis of the additional findings could cover some ingredients of DR that were missing in the literature.

Additional DR theme and characteristic

Turning to the literature of DR, there are eight themes and six characteristics being elucidated. The analysis of the data collected in this project not only identified the
eight themes and six characteristics in the PR campaigns of WPDRR, but also found a novel theme and a novel characteristic that qualify for the DR framework.

**Additional DR theme**

An identifiable element not specifically addressed by the DR theme formula was remembering and healing rituals. There were many examples reported by the media of civil and organizational rituals, ceremonies, and symbols for remembering and healing. The majority of the ritual reportage was found in some key times such as 100 days after the earthquake, the first Chinese New Year and the first Tomb-sweeping Day after the disaster, as well as the disaster’s 1\(^{st}\), 2\(^{nd}\), and 3\(^{rd}\) anniversaries. An overlook was designated by the civil survivors after the ruins of the old Beichuan County town was closed for safety concerns. The location has a good view of their hometown and there were residents regularly visiting the overlook to hold a memorial ceremony such as burning incense and mock coins. The overlook becomes crowded with visitors at those times.

The governments and media also promoted the activities of rituals and ceremonies. A week after the earthquake, the State Council declared a three-day period of national mourning for the quake victims and raised the national flags at half mast in the whole country. Governments have organized a moment of silence when all the government officials and civil citizens stood silent for three minutes while air defense, police and fire sirens and the horns of vehicles, vessels and trains sounded. The local governments decided to reserve the earthquake site in the old Beichuan County town and open it to the public after some protective reinforcement. Monuments were erected where
public remembering and healing ceremonies were held during anniversaries and huge outdoor poster boards have endorsed “Remembering Wenchuan Earthquake”.

Remembering the disaster experience in a positive way could help heal the community, especially when the victims found that the grieving is not an individual problem and is publicly authorized. Memorial structures and symbols were also believed to acknowledge the accomplishment of WPDRR. Note that, though this theme contains cultural elements in terms of how the Chinese people held rituals and ceremonies, the component of remembering and healing in disaster recovery is not unique to other cultures. U.S scholars also reported observations on community remembering behaviors and healing rituals (Ezzeddine, 2006; Littlefield et al, 2009).

**Additional DR characteristic**

An identifiable feature not specifically addressed by the DR characteristic formulae was found in the case of WPDRR campaigns. The campaigns were recognizably using emotional communication by leaders and broadcasters. Premier Wen showed great concern and sympathy to the victims by facial expression, gestures, and direct dialogues with the survivors. He shook hands with victims, touched the kids and even shed tears in front of the camera for the death of school children. He and President Hu used frequently firm tone to emphasize the commitment to rebuild. Jin Dazhong, the head of Beichuan County, who presented himself as a tough guy in the disaster response burst into tears in front of the camera when talking about the collapse of his town and how victims suffered when the earthquake struck.
News anchors during the Wenchuan earthquake response all wore dark colors and broadcast in a sympathetic tone. Newspaper editors were using appeals of grief and sympathy in their writings. During the recovery phase, the expression in media reports on WPDRR especially on special programs or issues became impassioned and inspiring. The emotional rhetoric was to elicit an emotional response from the audience or readers and was quite successful in bringing the community together to form a supportive network.

**Additional puzzle for the PR campaigns of WPDRR**

The researcher further explored the outcome variable and found differences even existed among local governments. In order to compare participants’ relationship with different levels of local government, scores of relationships with province, city and County Government were combined into a new file with a DV as relationship and an IV as group numbers (1 = relationship with province; 2 = relationship with city; 3 = relationship with county). When comparing relationship scores of the three groups by one-way ANOVA, a significant difference between groups emerged ($F_{2, 578} = 18.47$, $p < .000$). These results indicated that participants’ relationships with each level of government were significantly different, and the lower the level of government, the less favorable the relationship (see Table 12).

These statistical results triangulated findings from content analysis of interviews and campaign materials which indicated that the lower the level of government, the fewer communication resources it could deploy. Sichuan has a large number of provincial media that are influential in the province; Mianyang has several municipal media which
mainly serve the city and Beichuan County has only one media outlet, Beichuan TV and Radio Station, which serves the county.

<table>
<thead>
<tr>
<th>Level of Government</th>
<th>The Central government</th>
<th>Provincial Government</th>
<th>City Government</th>
<th>County Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean of Relationship</td>
<td>4.92</td>
<td>4.41</td>
<td>3.86</td>
<td>3.8</td>
</tr>
</tbody>
</table>

*Note: the score was measured on a -5 to 5 scale.*

Public information officers from the local governments explicated that much of their time and energy was devoted to external communication (communication to those outside the community) and they had limited personnel and resources for internal communication (communication to insiders in the community). This issue was even worse for the lower level of the government. For instance, a public information officer from the Provincial Government reported that his department had put 30% of their strategic efforts to external communication and 70% to its province community; the number in City Government was 50% and 50%; the number in the County Government was 70% and 30%.

There were two reasons behind this puzzle. First, a media regulation required public information department to provide service to external media that visited its jurisdiction. Since the earthquake and WPDRR had attracted hundreds of external media to visit and revisit the disaster-hit communities, the officials and staff of local public
information departments got exhausted by providing services. For example, when a TV crew from CCTV was visiting Beichuan in June 2011 to provide coverage of tourist renewal in the area, the head of the public information department in Beichuan government left the office and provided full-time accompaniment and service to the crew for the whole journey (about 10 days).

Though regularly working overtime, the personnel in the local public information office, especially the County Government, had difficulties planning for strategic dialogues with the county community. The participants reported less emotional support received from the County Government.

**Summary and Preview**

Chapter five reported the data, aggregated by identification of DR themes, characteristics, objectives, exploration of DR campaigns outtake and outcome, and discussion of puzzles in the campaigns. In chapter six, findings are discussed.
CHAPTER SIX: DISCUSSION

The focus of this project is to evaluate DR application based on perspectives of both senders and receivers. PR campaigns in WPDRR were selected as the case because of their conspicuous contribution to the success of disaster renewal after the earthquake. The analysis of DR themes, characteristics, objectives, functions and barriers were done through mixed methods. In chapter five the data were reported. Discussion is offered in this section.

The Chinese government’s efforts to communicate WPDRR with the community provided a new context to examine DR. It is intriguing to study government PR campaigns in China because of its unique environment—an authoritarian political system with an intent to be democratized. Application of DR in this case provides an opportunity to learn communication factors that either promote or impede the effectiveness of DR. Discussion is presented regarding extension of the theory and test of the model. Leader-based versus non-leader-based communication and interwovenness of DR themes are discussed. Cultural consideration and conditions of successful application of DR are reviewed.

Extensions of the Theory

A theoretical framework, DR theory was selected in crisis communication literature to guide the analysis of how the Chinese government had launched PR
campaigns to promote WPDRR. Discourse of renewal is a response to the complexities of a crisis situation and the effort to find positive meanings and a sense of direction within the uncertainty and loss of a crisis (Seeger & Griffin, 2010). It moves away from notions of crisis communication as a defensive strategy to a positive possibility for the future. In successful cases of renewal, scholars have found unique themes, characteristics and objectives which can distinguish DR from traditional crisis communication strategies. This project synthesized the renewal research and created more comprehensive formulas for DR themes, characteristics and objectives.

Results of this project showed that the all eight DR themes, six DR characteristics and three DR objectives were present in the PR campaigns of WPDRR. These findings indicated that DR framework can be applied across culture and country boundaries and guide PR practice in China. Besides, this project has revealed a novel theme and a new characteristic in the case which can be included in the DR framework. Narratives about remembering and healing rituals, which was not specifically addressed by the DR theme formula, emerged from the case analysis of the PR campaigns of WPDRR. Additionally, the campaigns were found using emotional communication regularly to express concerns and sympathies by leaders and media broadcasters. The newly-add theme and feature though contain some cultural and context elements may be applicable to other cultures and situations.

This project further explored evaluation measurements of DR based on public relations literature. The model was employed to guide the analysis of the data and extend theoretical understanding of the function of DR. Through proposed evaluation procedures,
application of DR framework in WPDRR was found powerful in achieving its objectives and influential to public’s perceptions and relationship with the governments. Though there may be some other important factors that were not taken into account, this model is the first attempt to analyze the functions of DR in a scientific and systematic way.

Additionally this project also analyzed some endogenous factors which could impede the effectiveness of DR. T-tests results showed that the public reported significantly lower scores in their perceptions on and relationship with a lower level of the government than a higher level. Explanations were provided through content analysis of the interview transcripts and survey data. Findings show that the lower level of the government, the less strategic efforts attached to its relationship with the public. It is very possible that the imbalanced deployment of campaign resources caused the differences in the campaign outcome among different levels of the government.

**Discussion of the DRE Model**

Guided by the DRE model, evaluation made by officials and media practitioners, publics’ perceptions of WPRDD and publics’ relationship with the local government were studied and reported. Inference of the influence of DR framework on publics’ perceptions was made through analysis of interview transcripts and campaign materials. Statistical analysis was conducted to test the influence of publics’ perceptions on the relational outcome of the campaigns. Generally, the DRE model was tested as a useful model to guide the evaluation of DR application. Relationships between variables proposed in the original model were revised based on the statistical analysis and produced an updated one (see Figure 2).
According to the test results, local governments in Sichuan province had employed DR framework in PR campaigns launched after The Wenchuan earthquake. By utilizing DR themes and characteristics, public information departments and government-media had successfully achieved their campaign objectives. The campaigns generate moderate level of public awareness, high level of public agreement and high level of perceived care and concern. The awareness, agreement and perceived care and concern had significantly contributed to the favorable relationship between the public and the local governments. As a result, the residents in the disaster-hit community reported high level satisfaction, trust and support to the local governments.

Two significant direct predictors (agreement and perceived care and concern) and one significant indirect predictor (awareness) were detected by the model which positively predicted the relationship. Besides these three communication factors, the model has found some exogenous noise as age and educational level which both contributed to a small amount of the variance in the relational outcome. Among all predictors, perceived care and concern had played a major role in how participants rated their relationship with the local governments. That is, how much did a resident in the earthquake-hit community believe that the governments care about him/her in the disaster recovery largely determined his/her relationship with the governments.

DR framework employed in the PR campaigns of WPDRR contributed to favorable relationship between the community residents and the local governments since it communicated care and concern greatly. First, one major DR theme utilized in WPDRR was leaders’ communication to the community. The leaders were portrayed with
great sympathy and concerns to the victims. Second, the campaigns emphasized values such as “community cohesion” which also helped in building emotional connection between individuals and responsible entities. Third, the PR campaigns used much emotional communication in promoting renewal. This feature directly addressed the emotional need of the effected residents.

Based on the test of the model, scholars and practitioners should have more confidence in the power of DR framework to enhance the relationship between the community residents and governments which is a key factor in disaster renewal. Note that the DRE model was only tested in one cultural, political and media environment, application of this model in another context should be conducted cautiously. It might need further revision to be applicable in a more general crisis situation.

**Leader-based vs Non-leader-based DR**

**Leader-based DR**

Several cases studies on DR indicated the central role of the leadership in crisis initial response and renewal (see a list of renewal cases in Table 13). These leaders were actively engaged in the disaster response, showed up in front of the public, alerted the public about the emergency, explained for what happened, ensured the safety for the survivors, showed concern to the victims and enacted rebuilding (see Ezzeddine, 2006; Littlefield, Reiserson, Cowden, Stownman, & Feather, 2009; Reierison, Sellnow, & Ulmer, 2009; Saffitz, 2010; Seeger, & Ulmer, 2001, 2002; Seeger, Ulmer, & Sellnow, 2005; Sellnow, Ulmer, & Snider, 1998; Ulmer, 1989; Ulmer, 2001; Ulmer, Sellnow, & Seeger, 2007). They were CEOs of the companies, Chairs of the non-profit organizations,
governors, and community leaders (see a list of leaders in Table 13) who were believed to lead the crisis-damaged organization or community to a successful renewal.

<table>
<thead>
<tr>
<th>Year of The Case</th>
<th>Case</th>
<th>Leader</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>9/11 Attack to Cantor Fitzgerald</td>
<td>Howard Lutnick</td>
<td>Seeger, Ulmer, &amp; Sellnow, 2005</td>
</tr>
</tbody>
</table>
WPDRR is unique to the previous cases in term of its tremendous amount of work in restoration and reconstruction, complexity of resource distribution, collaboration among different sectors that involved and the three-year long process till the final success of renewal. These features of the case required enactment of leaders from different levels of government. Multiple leaders had actively engaged in WPDRR planning and operations. Publicity of their statements and activities contributed a large part of DR used in WPDRR campaigns. The primary functions of leadership narratives include increasing public’s knowledge about the plans, policies and procedures of reconstruction, justifying the legitimacy of the governments’ reconstruction efforts, showing concern and promoting healing in the community.

Survey data showed that advocacy of leadership was quite successful in generating moderate awareness of (52.5%), and high agreement with WPDRR plans, policies and procedures (76.4%). Moreover, one of the major objectives of the leaders’ communication is to show care and concern to the disaster-hit community. Survey data demonstrated the outcome of this strategy with a high perceived care and concern score from participants (4.32 on a -5 to 5 scale).

Though the PR campaigns of WPDRR attempted to be consistent with basic principles, the publics’ perceptions and relational outcome for different levels of
government had gaps due to different advocacy strategies and disparity in media resource. Basically, the higher level the leader from, the more media attention was attracted to, and better perceptions and relationship were produced. Based on an internal media management policy, once the top leader visits a local area, there are accompanied reporters from state media who will especially focus on the top leaders; once the leader arrives at the local area, the local media is required to report the leader’s statements and activities as well. In the case of WPDRR, many local media that gathered in the disaster areas all focused on the top leaders (Wen and Hu). The overall amount of media clips about the top leaders is huge and most of these media clips, though broadcast out of Sichuan province, can be seen by the community members in the disaster area through the cable network.

On contrast, local government leaders have attacked less attention of external media (the state media or media from outside Sichuan) though some leaders being interviewed by the state media for several times. Additionally, the public information officers and media chief editors being interviewed disclosed that they were regulated by a media guideline which requires them not to give too much prominence to local individual officials but portray the governmental decisions and actions as group efforts. Therefore, the media attention to the local leaders was much less than the top leaders though they did most of the leadership work in planning and executing WPRDD. As a result, the publics’ perceptions and relational outcome for local governments were not as glorious as that for the top leaders and the Central government. Survey data showed that participants’
Awareness of, and agreement on the WPDRR efforts made by top leaders and Central government was significantly higher than that of local governments.

**Non-leader-based DR**

This project has discovered enactment of DR by non-leaders such as government spokespersons and media practitioners. Throughout WPDRR, numerous spokesperson who were not in immediate leadership roles were reported making statements to meet various objectives of DR. These spokespersons were all from government bodies that have a specific interest in the disaster recovery within a role in WPDRR planning, operation, watching and providing support to the disaster renewal. Additionally, media reporters, editors and broadcasters played active roles in making sense of the disaster, communicating virtues and values, advocating “a culture of gratitude” and applauding for the community and personal transformation, advancement and change.

The data indicated that though leader-based DR has played a crucial role, non-leader DR was more prevalent in communication of WPDRR. This may be explained by the tremendous need of for information in WPDRR which provided opportunities for those not in leadership roles to communicate to the public about DR themes. This indicated that DR can be driven by various influence.

**Interwovenness of DR Themes**

According to the results of this project, narratives of leadership were highly mingled with other DR themes in the campaigns. Specifically, leader were very important sense makers of the disaster to the public and their interpretation of the events set up the tract of audience’ perception. Furthermore, leaders at all levels were the ones to issue the
commitment to rebuild and they were also the ones to announce progress and completion of WPDRR. Last, leaders were major communicator to address the core values and were those who demonstrated virtue ethics in WPDRR campaigns. The top leaders of the country were the key persons to establish an ethical climate and moral tone in response to WPDRR. They reacted swiftly right after the strike and expressed sincere concerns to the victims. Their public speeches and actions modeled the desirable behaviors for the lower levels of the government officials.

Crisis can materialize individuals or groups as heroes that rescue lives, remove the hazards, lead evaluation and rebuild homes (Meyers & Holusha, 1986). These heroes are identified and admired especially when they make sacrifices for the group, and also for their proven potential to do the same in the future (Burke, 1969). Heroes in WPDRR which were introduced previously were regarded as role models for their groups and the virtuous behaviors of party members and cadres were depicted by the media. These moral models made their personal contributions to the success of WPDRR and were emulated by followers. In this case, stories about how responders, volunteers, and constructors put in extremely hard work in initial response and WPDRR were toughing and inspiring. For those who sacrifice time, family time, health, and even life to assist the victims in the disaster areas were honored by the government and media as “hero and role model”.

The narrative of heroes exemplified some of ethic virtues and the core values. For instance, the story of Ye Zhiping, a party member and principle of a middle school who miraculously protected over 2000 students with a zero casualty and Cui Xuexuan, who came from Shandong province worked day and night to rebuild the new county town of
Beichuan in spite of his illness had demonstrated the virtue of responsibility and accountability. First responders such as Qiu Guanghua air force team who died in the rescue task and a police officer Li Guolin, who saved 50 students but lost his son, also elucidated the virtues of professionalism and self-sacrifice. The demonstration of individual virtues also helped to reaffirm the community core values. Narratives about a retired teacher who auctioned her apartment raise funds to build a school in earthquake-hit area in Sichuan was widely spread out through media and endorsed the value of community cohesion.

**Cultural Consideration in Application of DR**

Note that while some virtues and values are universal, others could be culturally bounded. The virtues (responsibility, accountability, professionalism, and self-sacrifice) and values (humanistic care, self-resilience and community cohesion) being identified among participants of WPDRR could cross cultures. Values such as equality, fairness and freedom which were out of Chinese public discourse and were largely missing in the PR campaigns launched by the Chinese government.

Furthermore, the definition of strong leadership could be distinctive in different cultures. One strong and effective leadership in one culture may not be productive in another. Scholar and practitioners cannot simply adopt leadership strategies identified in one culture in analyzing and implement DR in a different culture. Additionally, there are questions raised by the statistical results which could be cultural bound. For example, whether in any more individualist culture, assessment of relationship with the
governments will be more influenced by impact on individuals than appeared be the case in China should be examined in the future study.

**Conditions of Successful DR Application**

First, there were cases reported in the literature that implemented DR framework without a strong financial support and experienced a failure of crisis management (Ulmer, Sellnow, & Seeger, 2007). In the case of WPDRR, the governments had overcome the budget constraints quickly and successfully and provided monetary foundations for successful DR application.

Second, the Chinese government in the case of WPDRR had a privilege of owning the mainstream media in the country. Public agencies or organizations in other cultures may not have their own media as such powerful. Therefore, a positive relationship with independent media is essential. Public agencies or organizations that don’t have their own powerful media outlets should include establishing positive media relationship as one of their goals in preparedness of natural disasters.

**Summary and Preview**

Chapter six discussed how findings of this project had extended the DR theory and how the DRE model can suggest useful measurements for future evaluation of DR framework. Discussion about leader-based verses non-leader-based DR, interwovenness of DR themes, cultural consideration in DR application and conditions of successful DR application were also provided. Chapter seven reveals conclusions and implications of this study.
CHAPTER SEVEN: CONCLUSIONS AND IMPLICATIONS

A foundational case through a predefined theoretical lens of renewal was identified by this project. The earlier chapters have justified the imperatives of this case study and detailed approaches to finding answers to the research questions. The last two chapters illustrated results and discussion of the findings. Based on the findings, important conclusions are generated and introduced in this chapter. New principles and suggestions are given for future application of DR. The chapter closes with a summary.

Conclusions

Recap of major findings of this project and demonstration of intellectual comments and judgments are categorized in two camps: one is practical conclusion and the other is theoretical conclusion.

Practical conclusions

First, DR framework was detected in communication campaigns launched by the Chinese government to facilitate WPDDR. Leadership had played a central role in enacting DR which also included discourse of sense-making, hero-making, commitment to rebuild, action to rebuild, virtues and values, correction and community advancement. These components of DR were characterized with immediacy, openness, transparency, positive thinking, future focus, provisional response first and then strategic planning, restorative dialogue as well as quick resolution of monetary and legal issues.
Second, implementation of DR in the PR campaigns of WPDRR achieved recognizable success. Regarding the final success of WPDRR, communication campaigns have contributed largely to the relational renewal between the community and the local governments. Survey participants indicated moderate awareness of and large agreement with WPDRR efforts and perceived much emotional support for the local government. They further displayed strong satisfaction, trust and support of WPDRR efforts made by local governments.

The DRE model was further explored to generate evidence of how communication factors predicted the campaign outcome. Three important predictors were found by the statistical test as awareness, agreement and perceived emotional support. Among these predictors, perceived emotional support was a dominant variable that explained over half of the variance in relationship. That is, for participants who had different relationships with the local governments in WPDRR, a primary reason was because they perceived care and concern for the local government differently. If the governments expressed more care and concern to the community, they can expect a large rise in public satisfaction, trust and support rate towards them.

Third, communication obstacles of DR outcome were disclosed in the analysis of the WPDRR campaigns. In spite of the huge success of the WPDRR, this project found that the communication campaigns were not flawless. Different levels of government have launched separate campaigns in a top-down integrated government PR system. Differences that emerged in their particular strategies, resource deployment and implementation capability resulted in discrepancies in the campaign outtakes and
relational outcome. Survey participants demonstrated significantly greater awareness, agreement, perceived emotional support, and ultimately a better relationship with external helpers than with the local governments, ignoring the indispensable contributions of the local governments.

A major problem in the campaigns was that dialogue was an unbalanced distribution of campaign resources to external versus internal communication, that is, communication to outsiders versus insiders of the community. Much of the City Government’s advocacy efforts and most of the County Government’s advocacy efforts were deployed to external communication in order to establish a wide-ranged support network. Effective dialogue between lower-level governments and the disaster-hit community was largely missing. This default of the WPDRR campaigns resulted in lower satisfaction, trust and support to the local governments than to external helpers.

**Theoretical conclusions**

First, DR was tested across boundaries of culture and country. DR is a theory in crisis communication that offered an alternative to apologia, denial, and shifting of blame and responsibility. This framework has been detected in several successful renewal cases in the US (Ezzeddine, 2006; Littlefield et al., 2009; Reierson et al., 2009; Saffitz, 2010; Seeger, & Ulmer, 2001, 2002; Seeger et al., 2005; Sellnow, Ulmer, & Snider, 1998; Ulmer, 1989; Ulmer, 2001; Ulmer et al., 2007) and one case in the UK (Wastell, McMaster, & Kawalek, 2007). It is the first time that the DR framework has been tested in Chinese culture. Evidence from this study has proved the power of DR in a culture rather than the US and UK which suggests the nature of DR is culturally universal.
Second, besides synthesizing and testing a comprehensive list of DR themes, characteristics and objectives pre-defined by the literature, this study has extended the framework by supplementing a novel theme and a novel characteristic to the model. There are eight themes articulated in previous studies on DR, including leadership, heroes, sense-making, commitment to rebuild, action of rebuilding, virtues and values, correction and community/individual change. A new theme, remembering and healing rituals and ceremonies in the WPDRR campaigns, was found to function as DR.

The literature also described the features of DR as being open, immediate, transparent, proactive, prospective, from provisional to strategic, restorative, dialogic, to quick resolution of monetary and legal issues. These features have distinguished DR from other crisis communication rhetoric. One of the findings of this project is detecting a new characteristic of DR as being emotional by using sympathy appeals. The emotional communication has greatly contributed to the emotional support perceived by the community and therefore benefited the relationship between governments and community members. This feature could also explain other renewal cases and added to the DR framework. The three DR objectives that suggested in the literature were confirmed in the PR campaigns of WPDRR.

Third, evaluation procedures were developed and tested based on the DRE model. Since the first formal argument of DR theory in 2002 by Seeger and Ulmer, DR has been reported for its magic power of turning disaster into opportunity and helping troubled organizations not only to survive but also to thrive in crises (Ezzeddine, 2006; Littlefield et al., 2009; Reierson et al., 2009; Saffitz, 2010; Seeger, & Ulmer, 2001, 2002; Seeger et
al., 2005; Sellnow, Ulmer, & Snider, 1998; Ulmer, 1989; Ulmer, 2001; Ulmer et al., 2007) and one case in the UK (Wastell, McMaster, & Kawalek, 2007). No statistical evidence, however, has shown the effectiveness of DR in crisis recovery and renewal.

This project has proposed an evaluation tool as the DRE model to test the effectiveness of DR. Three important predictors were found: awareness, agreement and perceived emotional support and their contribution to the variance of the ultimate PR outcome—relationship was illustrated. This model would facilitate our understanding of why certain applications DR are successful and others not, and provides guidelines to research, planning and evaluation of renewal campaigns.

Implications

This project posits four implications for crisis communication theory. The first involves guidelines for best practice in crisis communication. The second implication argued the importance of cultural sensitivity in understanding and implementing DR. Third, the implications of external versus internal communication in crisis response is examined. Finally, the essential role of leadership in DR is discussed.

DR as guidelines for best practice in crisis communication

There are not many cases being reported in crisis communication literature as successful as DR application in returning a damaged organization or community back to normal and even into an improved one. Scholars (Littlefield et al., 2009; Reiersen et al., 2009; Seeger, & Griffin, 2003; Seeger, & Ulmer, 2001, 2002; Seeger et al., 2005; Sellnow, Ulmer, & Snider, 1998; Ulmer, 1989; Ulmer, 2001; Ulmer et al., 2007) tried to figure out what guidelines could be followed by the organization or community in crises
to best practice crisis communication in winning a renewal. The focus on how to move past and learn from a crisis is being recently added to the list of best practices (Seeger & Ulmer, 2001, 2002; Ulmer et al, 2007).

DR was recommended for its effectiveness as well as its ethical nature. The commitment to renewal enacted by an organization indicated its willingness to take responsibility. And being open, honest, and transparent communication, without denial, manipulation, or shifting blame, DR is employed in the best interest of stakeholders (Ulmer et al, 2009).

**Cultural sensitivity in understanding and implementing DR**

An important conclusion of this study is that DR can be utilized across culture and country boundaries. Crisis scholars and practitioners from all cultures should seriously consider this powerful tool to understand and direct crisis response. In spite of the universal usefulness of DR framework, crisis scholars and practitioners should also be culturally sensitive to the themes that constitute the model.

For example, organizations adopting DR in their crisis response may use culture-bound virtues and values. Some virtues and values in one culture may not be applicable to another. Equality, fairness, justice and freedom, which were socially-agreed upon values in Western culture were largely absent in the PR campaigns of WPDRR. During a civil evacuation in the disaster, it is publicly acceptable in China for the responders to make the residents leave regardless of their freedom of choice. There other themes and features of DR might also be constrained by culture.
Questions such as whether a good leader and hero are defined differently in different cultures need to be carefully studied. Additionally, results found in the project need to be used cautiously if DR employ in the culture other than China. The cultural, political and media context may constrain the conclusions to be adopted in another culture.

**External versus internal communication in DR application**

The terms external and internal communication can be understood variously with different study purposes. In this case, internal communication was defined as communication with the disaster-hit communication and external communication as communication with others. Internal communication can also be regarded as insider communication and external as outsider communication. Based on the interview with public information officers in the Sichuan local governments, internal and external communication were not classified in the WPDRR, which means communication with different target audience or readers were strategically planned.

When all external and internal information were indiscriminately shown in the disaster-hit area, one disadvantage of the mess was dissatisfaction of victims receiving external messages in the mass media inappropriate to them. For instance, the media chief editor from Beichuan County complained about the lurid scene of the disaster being regularly replayed by some media in fundraising campaigns hurt the feelings of the victims. “You will never understand the feeling of the victims when they see the visual record of the disaster again and again”, she said. “I was angry because they are using our pain to make their program” (personal interview). One solution to this problem is to
balance the efforts of external and internal communication and carefully design the communication messages to meet the insiders’ information and emotional needs.

**Role of leadership in DR application**

DR theory literature has strongly recommended the important role of leaders in crisis renewal. In fact, many DR themes could be enacted by the leaders. In the case of WPDRR, there were multiple leaders in a superior to subordinate relationship. The leaders in lower levels were found to be less empowered in their public discourses, which resulted in less effectiveness of their communication campaigns. Future crisis managers may want to consider how to attach strategic importance to leaders who are always able to contribute to the renewal and deploy sufficient advocacy resources to support the leader in crisis response.

**Limitations**

While the investigation of the PR campaigns of WPDRR offers compelling conclusions and implications, it is important to recognize the limitations to this study. First, the case study, while useful to expanding the DR theory, is limited in that its findings may not be generalizable to other situations. A common criticism of case study is its emphasis on small samples that limit the ability of the findings to contribute to a large population. While being cautious to the conditions in which DR could be successfully applied, scholar and practitioners should realize that the close attention and thick description of case can be very useful for theory building and the extension of the theory could inform studies on similar cases.
Second, content analysis of interview transcripts, campaigns documents and media reports, though employed procedures to increase validity and accuracy, was subjective. There were still chances that the subjective interpretation was not consistent with the reality. Researcher did triangulation of the data being collected from different sources for the same research questions in order to ensure evidence from one source could be verified by another. Particularly for the second and third research questions, findings were cross checked for validity.

Third, this study did extend the evaluation measurements of DR and created the DRE model. While statistical evidence supported the association between DR outtake and DR outcome, the association between DR input and outtake were mainly based on inferences of content analysis. Being argued logically in Chapter Five, the association between DR input and outtake was useful to answer research questions in this project and researchers may want to explore statistical approaches to test the association in future studies.

Fourth, it is important to note that the test of the DRE model was conducted based on the data collected from a community survey. Since the survey was conducted in only one of the earthquake-hit communities, readers need to be aware that results could different in other communities. In the pilot study, researcher had observed another community being affected by the Wenchuan earthquake and detected very positive evaluation on the WPDRR efforts made by the local governments. There seemed to have fewer complaints about the local governments than those in Beichuan. However, due to
the time and budget limitation, researcher was unable to study the second community and
had to leave this puzzle for future investigation.

Finally, the DRE model was tested only in the case of WPDRR in China that has
its unique cultural, political and media environment. For example, the media relationship
of the governments is very positive since the governments have large power over the
media in China. Utilizing the DRE model in another cultural, political or media context
could give different results. There is a need of further exploration in various contexts to
develop a more general version of the model.

**Future Research**

Future research should do four things. First, scholars should explore additional
cases of cultural groups involved in DR application and explore the unique role of
culture in crisis renewal. Second, future study should continue to test formulas of DR
themes and characteristics, challenge the pre-defined components and add supplements to
build a better understanding of the theory. Third, scholars should further examine the
DRE model to verify the reliability and refine the procedures to evaluate the effectiveness
of DR. Finally, more studies are needed to articulate the conditions for DR application to
be successful and identify communication and non-communication obstacles to
successful application of DR.

**Chapter Summary**

Chapter six provided the conclusions of major findings and emphasized the
contributions of this study to promote the practical and theoretical development in the
area of crisis communication. Four implications for this study were illustrated with the
purpose of promoting DR as the best practice in crisis communication, increase cultural sensitivity when employing DR, clarify functions of internal versus external communication in crisis response and emphasize the role of leadership in crisis renewal. Finally, future studies are called for based on the limitations of this project.
APPENDIX A

Study on Governmental Discourse of Renewal after the Wenchuan earthquake
汶川灾后重建政府·播研究

Interview Questions for Government Officials and Media Chief Editors
· 政府官·和媒体··的采···
1. Do you remember where you were on May 12, 2008?
   你··得 2008 年 5 月 12 号那天你在哪·？
2. What did you do on May 12, 2008?
   2008 年 5 月 12 号那天你在做什·？
3. How did you feel on May 12, 2008?
   2008 年 5 月 12 号那天有什·感受？
4. When did you start to work on disaster recovery for your community?
   从什··候·始你参与到灾后重建的工作中？
5. What did you do to help the community to recover from the disaster?
   在灾后重建·程中，你做了些什·？
6. Did government have any plan to help the community to recover from the disaster?
   于灾后重建有一个·划·？
7. How did you communicate the recovery plan to the community residents?
   你如何·老百姓了解灾后重建的·划？
8. What research did you do before you launched the PR campaigns?
   在·展宣·工作之前，你做了哪些研究？
9. How did you plan for the PR campaigns?
   你如何·划宣·工作的？
10. How did you execute the PR campaigns?
    你如何·施宣·工作的？
11. How did you evaluate the PR campaigns?
    你如何·收宣·工作的？
12. What communication strategies did you use to ensure the residents will agree and cooperate with WPDRR?
    你采取了那些宣·策略来取得老百姓·灾后重建的理解和支持？
APPENDIX B

SURVEY QUESTIONNAIRE FOR RESIDENTS

Section One: Residency

1. Where were you born? ________________
   您在哪里出生？

2. How many years have you lived in the old town? ________________
   您在老北川住了多少年？

3. How long have you been living in the new town? ________________
   您在新·城住了多···了？

4. Have you ever lived in a province other than Sichuan? ________________
   您在·的省居住··？
   1). Yes 是 2). No 否

The next few questions ask about your opinion about the old and new town.

For each of the following questions, please choose a number on an 11-point scale from -5 for strongly disagree, 0 for neutral, to 5 for strongly agree.

-5 表示非常不同意, 0 表示中立, 5 表示非常同意。

Before The Wenchuan earthquake, 地震前

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Disagree</th>
<th>Neutral</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5a. Housing conditions in the old town were good</td>
<td>-5 -4 -3 -2 -1 0 1 2 3 4 5 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5b. The public facilities in the old town were good</td>
<td>-5 -4 -3 -2 -1 0 1 2 3 4 5 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5c. There were good job opportunities in the old town.</td>
<td>-5 -4 -3 -2 -1 0 1 2 3 4 5 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5d. The basic infrastructures in the old town were good.</td>
<td>-5 -4 -3 -2 -1 0 1 2 3 4 5 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5e. The neighborhood in the old town had a good culture</td>
<td>-5 -4 -3 -2 -1 0 1 2 3 4 5 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5f. The local government provided a good service</td>
<td>-5 -4 -3 -2 -1 0 1 2 3 4 5 9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
in the old town. 老·政府服务·非常好

After The Wenchuan earthquake, 地震后

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Neutral</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5a. Housing conditions in the new town are good</td>
<td>-5 -4 -3 -2 -1 0 1 2 3 4 5 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5b. The public facilities in the new town are good</td>
<td>-5 -4 -3 -2 -1 0 1 2 3 4 5 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5c. There are good job opportunities in the new town. 新·有很多的机会</td>
<td>-5 -4 -3 -2 -1 0 1 2 3 4 5 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5d. The basic infrastructures in the new town are good. 新·基础设施非常好</td>
<td>-5 -4 -3 -2 -1 0 1 2 3 4 5 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5e. The neighborhood in the new town has a good culture 新·社区的精神面貌好</td>
<td>-5 -4 -3 -2 -1 0 1 2 3 4 5 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5f. The local government provides a good service in the new town. 新·政府服务·非常好</td>
<td>-5 -4 -3 -2 -1 0 1 2 3 4 5 9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Section Two: General Information Seeking

第二部分，一般信息·取

6. The following questions are about the media use.

   接下来的··是·于媒体的使用

   ____6a. Do you read print newspapers? (If yes), how many days per week on average do you read print newspapers? (If no, record 0). 您平·看····? (如果看),您平均一周有几天···· (如果不看, 写0)。

   ____6b. (If yes to 6a), how many hours on average do you read print newspapers each time? (If no to 6a, record 0). (如果看··),平均·看····多···· (以小时算) (如果不看, 写0)。

   ____6c. Do you use the Internet? (If yes), how many days per week on average do you use the Internet? (If no, record 0). 您平·上网·? (如果上),平均一周有几天上网? (如果不上网, 写0)。

   ____6d. (If yes to 6c), how many hours on average do you spend online during each visit? (If no to 6c, record 0). (如果上网),平均·上网多···· (以小时算) (如果不上网, 写0)。

   ____6e. Do you listen to radio? (If yes), how many hours on average do you spend listening to radio per week? (If no, record 0). 您平·听广播·? (如果听),一周您大概·听几个小时·广播? (如果不听, 写0)。

   ____6f. Do you watch TV? (If yes), how many hours on average do you watch broadcast and cable television per day? (If no, record 0). 您平·看····? (如果看),平均·天看几个小时···· (如果不看, 写0)。

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6g. Do you read magazines? (If yes), how many magazines do you subscribe to? (If no, record 0). 您平传看志? (如果看), 您了份志? (如果不看, 写 0).

6h. (If yes to 6g), how many hours on average do you spend reading the magazines per week? (If no to 6g, record 0). (如果看), 一周花多志(以小算)? (如果不看, 写 0).

6i. Do you use text messages? (If yes), how many text messages on average do you send out per month? (If no, record 0). (如果传), 平个月传条短信? (如果不传, 写 0).

6j. Do you use Sina Weibo? (If yes), how many hours in total do you spend visiting Sina Weibo per week? (If no, record 0). (如果上), 一周您大概共上几个小时微博? (如果不上, 写 0).

6k. How long do you spend on the telephone per day? 您传天打传多传?

6l. Which of the following media source do you turn to most often for information? 您最常使用的媒体是哪个？

7. In a typical day, approximately how many hours total do you spend communicating with your relatives and friends? 您平均传戚朋友交流多(以小算)?

8. In a typical day, approximately how many hours total do you spend communicating with your neighbors and acquaintances? 您平均传街坊居交流多(以小算)?

9. In a typical day, approximately how many hours total do you spend communicating with your family members? 您平均传家人交流多(以小算)?

Section Three: Information of Wenchuan Post-disaster Restoration and Reconstruction
第三部分，于灾后重建的信息

10. Which of the following source do you turn to most often for information about Wenchuan Post-disaster Restoration and Reconstruction? 您最主要是从什途径得的?
1). Family members 家里人
2). Relatives and friends 戚朋友
3). Neighbors and acquaintances 居熟人
4). Neighborhood committee 社区委 会
5). Local government officials 地方政府官
6). Central government officials 中央
7. Pamphlets 宣传
8. Television 传传
9. Radio 广播
10. Print newspapers 传传
11. Magazines 传志
12. The Internet 互传网
13. Sina Weibo 新浪微博
14. Other 其它
15. Don’t know or no answers 不知道或不回答

11. The next few questions ask about how much you trust different sectors in Wenchuan Post-disaster Restoration and Reconstruction (WPDRR). 接下来的传于在汶
川灾后重建中您各个部的信任程度.

For each of the following questions, please indicate whether you trust or distrust the different sectors in WPDRR. Positive numbers indicate trust and negative numbers indicate distrust. Number 0 means neutral. If you trust the sectors, please choose a number from 1 to 5 to indicate the degree of your trust. If distrust the sectors, please choose a number from -1 to -5 to indicate the degree of your distrust. Now let’s try it.

11a. In general, do you trust the efforts made by President Hu Jintao in WPDRR? What is the degree of your (dis)trust? 体来，您汶灾后重建，主席的工作是否信任？(不)信任的
11b. In general, do you trust the efforts made by Premier Wen Jiabao in WPDRR? What is the degree of your (dis)trust? 体来，您汶灾后重建，理的工作是否信任？(不)信任的
11c. In general, do you trust the efforts made by the Central government in WPDRR? What is the degree of your (dis)trust? 体来，您汶灾后重建，中央政府的工作是否信任？(不)信任的
11d. In general, do you trust the efforts made by the aid provinces and cities in WPDRR? What is the degree of your (dis)trust?
11e. In general, do you trust the efforts made by volunteers and donors in WPDRR? What is the degree of your (dis)trust?

11f. In general, do you trust the efforts made by the Provincial Government in WPDRR? What is the degree of your (dis)trust?

11g. In general, do you trust the efforts made by the City Government in WPDRR? What is the degree of your (dis)trust?

11h. In general, do you trust the efforts made by the County Government in WPDRR? What is the degree of your (dis)trust?

12. The next few questions ask about how much you are aware of the general plan/relevant policies/detailed procedures of Wenchuan Post-disaster Restoration and Reconstruction (WPDRR). (Coders record answers on a scale of 0 = 0, 1 = 10%, 2 = 20%, 3 = 30%, 4 = 40%, 5 = 50%, 6 = 60%, 7 = 70%, 8 = 80%, 9 = 90%, 10 = 100%).

12a. How much did you hear about the general plan of WPDRR?

12b. How much did you hear about the relevant policies of WPDRR?

12c. How much did you hear about the detailed procedures of WPDRR?
13a. How much did you agree with the general plan of WPDRR.

13b. How much did you agree with the relevant policies of WPDRR.

13c. How much did you agree with the detailed procedures of WPDRR.

14. The next few questions ask about how much you support different sectors in Wenchuan Post-disaster Restoration and Reconstruction (WPDRR). For each of the following questions, please indicate whether you support or object to different sectors in WPDRR. Positive numbers indicate support and negative numbers indicate objection. Number 0 means neutral. If you support the sectors, please choose a number from 1 to 5 to indicate the degree of your support. If distrust the sectors, please choose a number from -1 to -5 to indicate the degree of your objection. Now let’s try it.

14a. In general, do you support the efforts made by President Hu Jintao in WPDRR? What is the degree of your support or objection?

14b. In general, do you support the efforts made by Premier Wen Jiabao in WPDRR? What is the degree of your support or objection?

14c. In general, do you support the efforts made by the Central government in WPDRR? What is the degree of your support or objection?
14d. In general, do you support the efforts made by the aid provinces and cities in WPDRR? What is the degree of your support or objection?

14e. In general, do you support the efforts made by volunteers and donors in WPDRR? What is the degree of your support or objection?

14f. In general, do you support the efforts made by the Provincial Government in WPDRR? What is the degree of your support or objection?

14g. In general, do you support the efforts made by the City Government in WPDRR? What is the degree of your support or objection?

14h. In general, do you support the efforts made by the County Government in WPDRR? What is the degree of your support or objection?

15. The next few questions ask about how you perceive the care and concerns from different sectors. For each of the following questions, please choose a number on an 11-point scale from -5 for strongly disagree, 0 for neutral, to 5 for strongly agree. 接下来的-5 到 5 之 -5 表示非常不同意，0 表示中立，5 表示非常同意。

15a. In WPDRR, President Hu Jintao very much cares about you. 灾后重建中胡主席非常关心您。

15b. In WPDRR, Premier Wen Jiaobao very much cares about you. 灾后重建中温家宝总理非常关心您。

15c. In WPDRR, the Central government very much...
cares about you. 灾后重建中央政府非常心您。

15d. In WPDRR, the aid provinces and cities very much -5 -4 -3 -2 -1 0 1 2 3 4 5 9
care about you. 灾后重建援建省市非常心您。

15e. In WPDRR, volunteers and donors very much -5 -4 -3 -2 -1 0 1 2 3 4 5 9
cares about you. 灾后重建中志愿者和捐款者非常心您。

15f. In WPDRR, the Provincial Government very much 9
cares about you. 灾后重建中省政府非常心您。

15g. In WPDRR, the City Government very much cares -5 -4 -3 -2 -1 0 1 2 3 4 5 9
about you. 灾后重建中市政府非常心您。

15h. In WPDRR, the County Government very much 9
cares about you. 灾后重建中政府非常心您。

16. The next few questions ask about how you objectively appraise the efforts made by
different sectors in Wenchuan Post-disaster Restoration and Reconstruction (WPDRR). 接下来的传传传您传各个部传在汶川灾后重建中工作的客传传价。

For each of the following questions, please indicate whether your objective appraisal
for the efforts made by different sectors in WPDRR is positive or negative. Positive
numbers indicate positive appraisals and negative numbers indicate negative
appraisals. Number 0 means neutral. If you have positive appraisals for the sectors,
please choose a number from 1 to 5 to indicate how positive your appraisal is. If you
have a negative appraisal, please choose a number from -1 to -5 to indicate how
negative your appraisal is. Now let’s try it. 接下来传您传各个部传在汶川灾后重建中工作的客传传价。

<table>
<thead>
<tr>
<th>Strongly Positive</th>
<th>Neutral</th>
<th>Strongly Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>0</td>
<td>-5</td>
</tr>
<tr>
<td>4</td>
<td>-1</td>
<td>-6</td>
</tr>
<tr>
<td>3</td>
<td>-2</td>
<td>-7</td>
</tr>
<tr>
<td>2</td>
<td>-3</td>
<td>-8</td>
</tr>
<tr>
<td>1</td>
<td>-4</td>
<td>-9</td>
</tr>
</tbody>
</table>

16a. What is your objective appraisal for the efforts made by President Hu Jintao in WPDRR?
您汶川灾后重建中胡涛主席的工作客价如何？

16b. What is your objective appraisal for the efforts made by Premier Wen Jiaobao in WPDRR?
您汶川灾后重建中温家宝理的工作
16c. What is your objective appraisal for the efforts made by the Central government in WPDRR?

16d. What is your objective appraisal for the efforts made by the aid provinces and cities in WPDRR?

16e. What is your objective appraisal for the efforts made by volunteers and donors in WPDRR?

16f. What is your objective appraisal for the efforts made by the Provincial Government in WPDRR?

16g. What is your objective appraisal for the efforts made by the City Government in WPDRR?

16h. What is your objective appraisal for the efforts made by the County Government in WPDRR?

17. The next few questions ask about how much you emotionally appreciate the efforts made by different sectors in Wenchuan Post-disaster Restoration and Reconstruction (WPDRR). For each of the following questions, please indicate whether you appreciate or depreciate the efforts made by different sectors in Wenchuan WPDRR. Positive members indicate appreciation and negative members indicate depreciation. Number 0 means neutral. If you appreciate the sectors, please choose a number from 1 to 5 to indicate the degree of your appreciation. If you depreciate the sectors, please choose a number from -1 to -5 to indicate the degree of your depreciation. Now let’s try it.

<table>
<thead>
<tr>
<th>Strongly Appreciate</th>
<th>Neutral</th>
<th>Strongly Depreciate</th>
</tr>
</thead>
<tbody>
<tr>
<td>DK</td>
<td></td>
<td>DK</td>
</tr>
<tr>
<td>Appreciate</td>
<td></td>
<td>Depreciate</td>
</tr>
</tbody>
</table>

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17a. Do you appreciate or depreciate the efforts made by President Hu Jintao in WPDRR? What is the degree of your appreciation (depreciation)?

17b. Do you appreciate or depreciate the efforts made by Premier Wen Jiaobao in WPDRR? What is the degree of your appreciation (depreciation)?

17c. Do you appreciate or depreciate the efforts made by the Central government in WPDRR? What is the degree of your appreciation (depreciation)?

17d. Do you appreciate or depreciate the efforts made by the aid provinces and cities in WPDRR? What is the degree of your appreciation (depreciation)?

17e. Do you appreciate or depreciate the efforts made by volunteers and donors in WPDRR? What is the degree of your appreciation (depreciation)?

17f. Do you appreciate or depreciate the efforts made by the Provincial Government in WPDRR? What is the degree of your appreciation (depreciation)?

17g. Do you appreciate or depreciate the efforts made by the City Government in WPDRR? What is the degree of your appreciation (depreciation)?
17h. Do you appreciate or depreciate the efforts of the County Government in WPDRR? What is the degree of your appreciation (depreciation)?

18. The next few questions ask about how much you are satisfied with sectors in Wenchuan Post-disaster Restoration and Reconstruction (WPDRR). The following questions are about your satisfaction with different sectors in WPDRR. Positive members indicate satisfaction and negative members indicate dissatisfaction. Number 0 means neutral. If you are satisfied with the sectors, please choose a number from 1 to 5 to indicate the degree of your satisfaction. If you are dissatisfied with the sectors, please choose a number from -1 to -5 to indicate the degree of your dissatisfaction. Now let’s try it.

18a. In general, are you satisfied with the efforts made by President Hu Jintao in WPDRR? What is the degree of your (dis)satisfaction?

18b. In general, are you satisfied with the efforts made by Premier Wen Jiaobao in WPDRR? What is the degree of your (dis)satisfaction?

18c. In general, are you satisfied with the efforts made by the Central government in WPDRR? What is the degree of your (dis)satisfaction?

18d. In general, are you satisfied with the efforts made by the aid provinces and cities in WPDRR? What is the degree of your (dis)satisfaction?
18e. In general, are you satisfied with the efforts made by volunteers and donors in WPDRR? What is the degree of your (dis)satisfaction?

18f. In general, are you satisfied with the efforts made by the Provincial Government in WPDRR? What is the degree of your (dis)satisfaction?

18g. In general, are you satisfied with the efforts made by the City Government in WPDRR? What is the degree of your (dis)satisfaction?

18h. In general, are you satisfied with the efforts made by the County Government in WPDRR? What is the degree of your (dis)satisfaction?

Section Four: Background Information

19. What is your sex?

1) Male 男 2) Female 女

20. In what year were you born?

21. Please specify your ethnicity.

22. What is your marital status?

1). Now married 已婚, 2). Widowed or widower 偶 婚, 3). Divorced 离婚, 4). Separated 分居, 5). Never married 未婚, 6) Don’t answer 不回答

23. What is the highest degree or level of school you have completed?

1). No schooling completed 无
2). Elementary school diploma 小学
3). Middle school diploma 初中
4). Technical secondary school 中 、 高
5). High school diploma 高中
6). College for professional training 大
7). Bachelor's degree 本科
8). Master's degree 研究生
9). Doctorate degree 博士生
10). Don’t answer 不回答

24. Employment Status 工作情况 Are you currently...? 您目前...
1) Employed for wages 受雇 工
2) Self-employed 个体
3) A student 学生
4) Retired 退休
5) Out of work and looking for work 失 工作
6) Out of work but not currently looking for work 失 但没有找工作
7) A homemaker 主 已婚或宅男
8) Unable to work 无法工作
9) Other 其他
10) Don’t answer 不回答
11) Out of work and has social charity 无 社保
12) Out of work and has social charity 无 低保

25. What is your total household income? 您全家月收入是多少?
1) Less than ¥800 低于 800 元
2) ¥800 to ¥1,499 800-1499 元之
3) ¥1,500 to ¥2,999 1500-2999 元之
4) ¥3,000 to ¥4,499 3000-4499 元之
5) ¥4,500 to ¥5,999 4500-5999 元之
6) ¥6,000 to ¥7,499 6000-7499 元之
7) ¥7,500 to ¥8,999 7500-8999 元之
8) ¥9,000 or more 高于 9000 元
9) Don’t answer 不回答

26. The next few questions ask about your personal recovery conditions. 接下来的 是 于你个人灾后恢 情况。For each of the following questions, please choose a number on the 11-scale from -5 for very bad, 0 for neutral, to 5 for very good. 于接下来的 于 于 -5 to 5 之 的 11 个数字中 于 个数字, -5 表示非常不好, 0 表示中等, 5 表示非常好。

Before The Wenchuan earthquake, 地震前

<table>
<thead>
<tr>
<th></th>
<th>Very Bad</th>
<th>Neutral</th>
<th>Very Good</th>
<th>DK</th>
</tr>
</thead>
<tbody>
<tr>
<td>29a. Your physical condition was</td>
<td>-5 -4 -3 -2 -1 0 1 2 3 4 5 9</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>29b. Your financial status was</td>
<td>-5 -4 -3 -2 -1 0 1 2 3 4 5 9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
29c. Your family relationship was
After The Wenchuan earthquake, 地震后
-5 -4 -3 -2 -1  0  1  2  3  4  5  9

29d. Your physical condition is
您的身体状况
-5 -4 -3 -2 -1  0  1  2  3  4  5  9

29e. Your financial status is
您的传政状况
-5 -4 -3 -2 -1  0  1  2  3  4  5  9

29f. Your family relationship is
您的家庭 • 系
-5 -4 -3 -2 -1  0  1  2  3  4  5  9
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