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EMERGING FROM THE ASHES: AN EVALUATION OF THE POSTCRISIS COMMUNICATION FOLLOWING THE 2008 TENNESSEE VALLEY AUTHORITY COAL ASH SPILL

Nicole Catherine Staricek *University of Kentucky*, nicole.staricek@uky.edu

Author ORCID Identifier:

https://orcid.org/0000-0002-5755-1845

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Nicole Catherine Staricek, Student Dr. Chike Anyeagnubaum, Major Professor

Dr. Anthony Limperos, Director of Graduate Studies

EMERGING FROM THE ASHES: AN EVALUATION OF THE POSTCRISIS COMMUNICATION FOLLOWING THE 2008 TENNESSEE VALLEY AUTHORITY COAL ASH SPILL

DISSERTATION

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the College of Communication and Information at the University of Kentucky

By

Nicole Catherine Staricek

Lexington, Kentucky

Co- Directors: Dr. Timothy Sellnow, Professor of Communication

and Dr. Chike Anyaegbunam, Professor of Integrated Strategic Communication

Lexington, Kentucky

2019

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ABSTRACT OF DISSERTATION

EMERGING FROM THE ASHES: AN EVALUATION OF THE POSTCRISIS COMMUNICATION FOLLOWING THE 2008 TENNESSEE VALLEY AUTHORITY COAL ASH SPILL

This dissertation uses a case study approach assess the postcrisis communication between the Tennessee Valley Authority and the Roane County community following the 2008 coal ash spill. More specifically, the researcher explores the relationship between organizational renewal and community involvement by means of an in-depth case study analysis.

The dataset includes transcripts from interviews with Tennessee Valley Authority leaders, as well as neighboring community members, all of whom were involved in the postcrisis recovery. Supporting data was collected from archival records made available to the public online and dedicated specifically to the Roane County project.

The results, implications for practitioners, and future research are discussed. The major findings of this case study offer insight into the ways in which the discourse of renewal can be expanded to incorporate elements of community involvement, thus working toward a collaborative approach to the renewal framework.

KEYWORDS: Crisis Communication, Postcrisis Communication, Case Study Research, Participatory Communication, Qualitative Research

Nicole Catherine Staricek		
(Name of Student)		
12/12/2019		

EMERGING FROM THE ASHES: AN EVALUATION OF THE POSTCRISIS COMMUNICATION FOLLOWING THE 2008 TENNESSEE VALLEY AUTHORITY COAL ASH SPILL

By Nicole Catherine Staricek

Dr. Timothy Sellnow		
Co-Director of Dissertation		
Dr. Chike Anyaebunam		
Co-Director of Dissertation		
Dr. Anthony Limperos		
Director of Graduate Studies		
12/12/19		
Date		

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Chapter One: Introduction

Though no two crises are the same, corporations are exposed to similar types of crisis events. Natural disasters, financial mishaps, food and water contamination, and internal and external tensions all present risks and potential crises for organizations. Much of the crisis communication literature examines this recovery process from the organization's perspective, addressing needs of image repair and reputation management. However, only recently did crisis communication scholars begin to theorize about the positive aspects that can be gleaned from crisis events (Ulmer & Sellnow, 2002).

The notion that opportunity can be found in times of crisis is not new. In fact, the ancient Mandarin Chinese symbol for crisis consists of two components—danger and opportunity (Ulmer, Sellnow, & Seeger, 2011). The discourse of renewal (Ulmer, 2001) is a relatively young framework that attempts to understand and explain the ways in which organizations can find opportunity and improve. The discourse of renewal posits that with special attention to four tenants—organizational learning, ethical communication, prospective vision, and organizational rhetoric—an organization can not only recover from a crisis event, but also improve to a state better than before the crisis took place.

The discourse of renewal, also referred to as organizational renewal, has been applied to many cases over its last decade of existence. Ulmer, Sellnow, and Seeger (2011) used renewal to analyze the response to the September 11th terrorist attacks as well as the BP oil spill. Furthermore, Anderson (2012) applied the theory of organizational renewal to Toyota's financial crisis. As the theory suggests, much of the literature addresses renewal in regard to the organization and its efforts postcrisis.

This study begins by establishing a greater need for understanding the discourse of renewal as it pertains to postcrisis communication within the organization and outside of the organization and into affected communities. Next, a rationale is provided for using the Tennessee Valley Authority coal ash spill as a case study followed by a brief description of that crisis event. Finally, a summary of the chapters is outlined.

Often times, an organization's crisis will transcend boundaries and affect the community in which it resides. No matter whether they are privately or publicly owned, organizations have the ability to wield power over the cities and towns in which they are based. Many times, the surrounding communities rely on residing organizations for the financial well-being and livelihood of the place that they call home. For these reasons, it is valuable to observe the role of a stakeholder as it applies to organizational renewal.

There are a variety of instances where crisis events transcend the organization's physical boundaries and filter into the community in the form of disaster, financial havoc, and unwanted chaos. Rather than attempting to renew from a traditionally top-down approach, this study poses that organizations could benefit by viewing the surrounding community as a vital aspect of organizational renewal and should strive to work *with* them in their postcrisis communication. Ethical communication has already proven to be a necessary component for organizational renewal (Ulmer, Seeger, & Sellnow, 2007). In keeping ethical communication a priority, in times of crisis the at-fault organization should consider striving to reduce community perceptions of power imbalance by engaging in acts of participatory communication foster more effective communication. In turn, the organization will hold itself to high ethical standards both internally and externally—a new, heightened level of renewal, and ultimately create a better

relationship between the two entities. Ideally, this stronger relationship and heightened renewal will aid in smoother, more effective future communication.

Currently, the discourse of renewal lacks special attention to a very important stakeholder group during environmental crises—the affected community. A voice and sense of involvement in the recovery process can lead to better community relations. In an ideal postcrisis world, the at-fault organization would address the needs of the affected community, as well as the organization's internal needs for learning and improvement, in order to build a foundation for successful community relations in the future. At this point, the literature regarding organizational renewal does not address community involvement as a necessary concept in the recovery process. This absence of community involvement, referred to as participatory communication in critical scholarship, encouraged the author to observe if participatory communication could enhance renewal. One case in particular, the 2008 Tennessee Valley Authority coal ash spill in Kingston, TN, provided itself to better understand renewal theory and participatory communication, and perhaps both.

The case is briefly presented below with a short description.

The TVA Coal Ash Crisis

TIMELINE OF EVENTS		
2008, Dec 22	Earthen dike breaks at TVA power plant releasing coal sludge and fly ash	
	destroying homes and polluting streams.	
2008, Dec 23	EPA joins cleanup efforts. Together, TVA and EPA find arsenic in water.	
2009, Jan	Early phases of recovery and cleanup begin	
2009, Sept	TVA sets up \$40 million Roane County Economic Development Foundation.	
· -		

Figure 1.1, Timeline Immediately following TVA Coal Ash Spill

Shortly before 1:00 a.m. on December 22, 2008, an earthen dike, which contained five decades of coal fly ash, failed at the Tennessee Valley Authority (TVA) Kingston Fossil Plant in Roane County, Tennessee. Initial reports by the TVA and the EPA estimated the spill released 1.7 million cubic yards of sludge. Later official reports confirmed the dike released over three times the original estimate (now 5.4 million cubic yards) of sludge into the Emory River and onto nearly 300 acres of surrounding property (Fausset, 2008). There were no physical injuries, but the spill destroyed three homes, damaged 42 other properties, ruptured a major gas line, knocked down power lines, blocked roads, and displaced several families. (CBS News, 2008).

Coal fly ash is a byproduct of coal combustion and contains a number of hazardous environmental toxins. The National Academy of the Sciences reports exposure to fly ash through skin contact, inhalation of fine particle dust, and consumption of contaminated water may present health risks. TVA funded an effort by Oak Ridge Associated Universities (ORAU) and physician medical toxicologists from Vanderbilt University Medical Center (VUMC) so that an independent health screening of people who resided near the ash spill could be conducted. The study took place between September 2009 and April 2010. Analysis of the available data from this baseline medical examination suggests no expected long-term effects on physical health from current levels of exposure. Storing fly ash is not a new concept; however, it is the manner in which TVA stored their ash that caused concern. TVA placed its waste in earthen dikes reaching nearly 55 feet in height shortly before the spill.

Initially, TVA focused its attention on the individuals and families affected by the nation's largest coal fly ash spill; the next concern, for which assessment efforts began

within 13 hours of the spill, was the possibility of water and air contamination. Currently still in progress, the cleanup process (a joint effort between TVA and EPA Region 4) has been on-going for nearly five years. EPA's role involved third party testing of water, air, and soils, as well as continual oversight of the coal fly ash removal. The EPA's efforts were standard protocol for a major environmental spill, as outlined in the extensive online documentation found on the TVA's Kingston Recovery website (http://www.tva.com/kingston/).

Shortly after the spill, several public hearings took place for oversight purposes. EPA conducted a third-party water test to determine the safety of the drinking water and found that water levels were adequate for drinking. An October 2008, inspection of the dike found faulty walls, though the report was not finalized until February 2009, two months after the December spill (Marcum, 2011). Currently, TVA is still in full recovery mode as images and videos illustrate on the TVA Kingston Recovery webpage (www.tva.gov/kingston/index.htm)

Roane County is a rural community located about Tennessee. At the time of the spill, the Roane County population was 53.430 (U.S. Census Bureau, 2015). According to the TVA Community Involvement Plan, Roane County ranks 26th in population out of the 95 counties in Tennessee. Additionally, the per capita income is \$29, 074. In terms of education level, 83% of the population has at least a high school while 17% of adults, ages 25 and older, have a college degree. The table below details the ethnic breakdown of Roane County as taken from the U.S. Census Bureau.

Table 1.1, Roane County Demographics

Ethnicity	Percent of Population
White	95.2
African-American or Black American	2.8
American Indian and Alaska Native	0.2
Asian	0.5
Native Hawaiian and Other Pacific	N/A
Hispanic or Latino origins	1.2
Persons reporting two or more races	0.9

Focus of the Study

This study extends our understanding of organizational renewal by using renewal framework as a lens in which to better understand TVA's postcrisis communication, as well as a way to extend renewal theory by observing community involvement. In meeting that objective, the following primary research questions guided this research:

RQ1: To what extent were the tenets of organizational renewal theory apparent in TVA's postcrisis communication response?

RQ2: To what extent was the local community involved in the recovery phase?

RQ3: In what ways did community involvement impact the renewal process?

In answering the above questions, the literature will be expanded in a unique and meaningful way. First, future case studies that utilize the discourse of renewal will serve to develop and further legitimize this somewhat recent theoretical framework. Second, an

understanding of how or if the community plays a role in the renewal process functions to expand the already existing literature on renewal and perhaps add to the four tenants of the discourse of renewal.

The subsequent chapters are structured as follows: Chapter two provides a review of relevant literature. Specifically, the review begins by defining crisis communication, outlines postcrisis communication frameworks, including as apologia, image repair, situated crisis communication theory and finally, organizational renewal. Chapter two expands to include participatory communication in the form of community engagement and its potential effect on organizational renewal. Chapter three presents the methodology used in this study by describing data collection and procedures used for analysis. Chapter four provides an analysis of the TVA coal ash spill. Lastly, chapter five offers conclusions, implications, limitations, and opportunities for future research.

The TVA coal ash spill serves as an example of an organization attempting to renew following a crisis and warrants further study for several reason— First, this study capitalizes on the opportunity to take a somewhat recent theoretical framework and apply it to a unique case study, further building the theory. This chapter suggests postcrisis communication, namely the theory of organizational renewal, may benefit from adopting aspects of participatory communication. The following chapter will provide a review of relevant literature that serves as a foundation for this dissertation.

Chapter Two: Literature Review

This chapter provides a thorough review of literature pertinent to postcrisis communication and the organizational renewal. First, a definition of crisis is provided and serves to situate this study within the post crisis communication realm. Following the definition, the author provides the evolution of postcrisis conceptual frameworks, paying special attention to the discourse of renewal as it serves as a lens to this study.

Additionally, an overview of participatory research and the works of Habermas are provided to better understand the origins of participatory communication and better assess and observe community engagement in the TVA recovery process.

Crisis Communication

To begin to understand organizational crises, one needs a concrete definition of a crisis or crisis event. However, many varying definitions exist within the crisis communication literature. Most simply, Webster Dictionary defines a crisis as "a time or state of affairs requiring prompt or decisive action". We see this term defined another way in everyday communication. While the author agrees that spilling your morning Starbuck's all over their work clothes is indeed a tragedy, it is not a crisis as seen by communication scholars. Over the years, scholars added to the layperson's definition of crisis to better meet the needs of research. In doing so, scholars identified three common themes that emerge in true crisis events—surprise, threat, and short response time (Hermann, 1963). The next passage will tackle each of these themes as they apply to this body of research.

Surprise. The element of surprise can come in many sizes, shapes and forms. In the case of naturally occurring disasters, an event is only considered a crisis if it exceeds

the normal expectations of city and government officials (Ulmer, Seeger, & Sellnow, 2007). For example, Hurricane Katrina introduced an element of surprise to the city of New Orleans when the levee broke and created additional flooding and havoc, far exceeding the city's management abilities.

Additionally, the element of surprise can come in the form of an unplanned event. While many organizations create crisis plans and do their best to expect the unexpected, there are events that remain unforeseen, regardless of planning. In the upcoming case study, TVA created several crisis plans from financial losses to nuclear disasters. However, no one at TVA planned for a faulty retention pond and the subsequent events in 2008.

Threat. The severity of threat also matters when determining if an event is a crisis by definition. In the case of the BP oil spill, the spill escalated to a crisis due to the amount of oil released and the danger it posed to both the community and the organization. In many cases, oil spills do not reach crisis status due the somewhat regular occurrence throughout history. Historically, oil spills are contained in a short amount of time and leave little long-term damage (Ulmer, Seeger, & Sellnow, 2007). However, due to the threat and nature of the BP oil spill it became one of the worst disasters in U.S. history.

Short Response Time. Finally, crises are marked by the lack of response time. The TVA coal ash spill took place at approximately 2:00 a.m. on December 22_{nd}. The timing and severity of this crisis demanded that TVA act immediately to control the spill and begin cleanup from surrounding waterways and neighbored properties. The short response time places many demands on the governing organization including financial

demands, impromptu news coverage, and answering to the public with little or no time to prepare.

With these three concepts in mind, we arrive at Ulmer, Sellnow and Seeger's (2010) definition of organizational crisis— "a specific, unexpected, and non-routine event or series of events that create high levels of uncertainty and simultaneously present an organization with opportunities for and threats to it high-priority goals" (p.7).

Theoretical Frameworks for Organizational Crises

The way in which organizations create and preserve their reputations is a foundational area of public relations research. Ideally an organization's reputation "acts as a compass, steering us away from bad and dangerous affiliations" (Bronn, 2010, p. 309). Thus, an organization's reputation serves a valuable function in both risk and postcrisis communication. Over the last two decades, scholars concerned themselves with various theories and case studies within the realm of crisis communication (Benoit, 1994; Benoit, 1997; Seeger et al., 2005; Ulmer, Seeger, & Sellnow, 2007). This research ranges from repairing an organizations image to the long-term efforts to renew an organization's reputation.

Early theories of crisis communication focused on salvaging and repairing an individual or organization's reputation. From this perspective, crisis communication functioned with and for the individual or organization. The limitation of this focus is that events such as natural disasters, corporate mishaps, and even instances of food contamination affect a variety or stakeholders in very serious ways. As a result, crisis communication theories have evolved to account for the needs and safety of stakeholders.

The following sections outline the major frameworks and concepts relevant to this body of research, beginning with Apologia.

Apologia

In times of crisis or wrongdoing, an act of self-defense almost always follows suit. Rooted heavily in rhetoric, the theory of apologia attempts to better understand the verbal act of self-defense (Ware & Linkugel, 1973). Apologia was first explained in the context of political address, where the rhetor was speaking in defense of her or his actions or words. Within these forms of address, Ware and Linkugel (1973) found 4 common factors, or elements—denial, bolstering, differentiation, and transcendence. The first two factors are psychologically reformative and represent an obverse relationship, while the remaining two are psychologically transformative and also represent an obverse relationship. A brief outline of the four factors is provided below.

The first factor, denial, can take the form of denying facts, sentiments, objects, or relationships (Ware and Linkugel, 1973). Denial does not attempt to change the audience's meaning of the situation; rather, denial is the disavowal by the speaker to the accusations perceived by the audience. The second factor, bolstering is the obverse of denial. In this form of apologia, the speaker attempts to identify with some aspect the audience view positively. Another factor of apologia can take the form of differentiation. In this factor, the speaker creates new constructs and ultimately, new meanings for the audience. Many times during differentiation, the speaker asks the audience to withhold judgment until her or his actions can be viewed from a new perspective (Ware & Linkugel, 1973). Transcendence is the final factor within apologia. Transcendental

strategies function to move the audience's opinion toward an abstract or general view of the speaker in order to move away from the particulars of an event.

The above factors can be chosen strategically to best assist speakers in their self-defense. Likewise, there are several postures of apologia that serve to assist in this verbal act—absolution, vindication, explanation, and justification (Ware & Linkugel, 1973). Absolution, consisting of differentiation and denial factors, seeks complete acquittal from the audience. Vindication, which relies upon transcendental strategies, strives not only to preserve the speaker's reputation but attempts to also highlight their human worth. The third posture, explanative, is a combination of the bolstering and differentiating factors. This posture assumes that if the audience understands the speakers' motives they will be unable to pass judgment. Lastly, justification asks not only for understanding but also approval.

The theory of apologia has been applied to a variety of settings outside of the political realm. Specifically, the research has extended apologia to include not only the individual address, but also the address of organizations, non-profits, and government agencies (Hearit, 1995). The idea of corporate apologia has been applied to both the Exxon Corporation and the Domino's Corporation in effort to better understand the address to the public and stakeholders after organizational mishaps. Hearit (1995) argues that these mishaps and wrongdoings raise legitimacy crises for those organizations involved. Just as individuals respond to accusations that challenge their character, organizations must respond to accusations that challenge their culture and organizational worth. While apologia provides sound factors and postures for defending an organization's reputation, a more exhaustive theory—image restoration, was created.

Image Restoration

Building on the theory of apologia, image restoration is a similar yet more thorough rhetorical strategy that advocates discourse as a remedy to organizational image threats (Benoit, 1997). Benoit's (1997) theory of image restoration observes five broad strategies—denial, evasion of responsibility, reducing offensiveness of event, corrective action, and mortification.

The first strategy, denial, takes two forms. The first is simple denial, where an organization outright denies that an act occurred. The second is shifting blame, where the accused organization assigns blame to another person or organization. Another general repair strategy is evasion of responsibility and is divided into four versions (Benoit, 1997). An organization can claim to be responding to the act of another (provocation), have lack of information or ability to avoid the crisis (defeasibility), claim that the act was a mishap (accident), or pose that the organization meant well (good intentions). A third image repair strategy set forth by Benoit is reducing the offensiveness of the act. This repair strategy has six versions, three of which were taken directly from apologia bolstering, minimization, differentiation, transcendence, attacking the accuser, and compensation. Depending on the type of organizational threat one or more of these versions might serve to repair the organizations' reputation. The fourth repair strategy involves the organization planning to solve or prevent a problem, also known as corrective action. Lastly, organizations can utilize the repair strategy of mortification, where they offer an apology for the act and accept full responsibility.

The five categories span the strategies from which organizations can choose to engage in full image restoration. Image restoration theory provides a framework that

focuses on image and image recovery to precrisis status. Image restoration theory does not acknowledge the opportunity for improvement and shifts in an organization's reputational compass that can be found within crisis situations. Instead, image restoration theory assumes that organizations employ resilience and withstand a crisis.

Image restoration theory was applied to a variety of crisis cases involving large corporations such as Texaco after the leak of racial slurs (Brinson & Benoit, 1999), individuals attempting to recover from image-tarnishing mishaps, notably actor Hugh Grant's address to the public after an embarrassing act of infidelity (Benoit, 1997), and athletes involved in controversy such as the Tonya Harding scandal prior to the 1994 Winter Olympics (Benoit, 1994).

Both corporate apologia and image restoration theory offer various strategies for warding off threats of organizational legitimacy, however, organizations face a variety of crises and it can be difficult to know which strategy to employ. Coombs and Holladay (2002) created Situational Crisis Communication Theory (SCCT) to assist organizations in choosing the most appropriate crisis response.

Situational Crisis Communication Theory

Based largely in public relations research, SCCT provides a prescriptive system for matching crisis response strategies to the crisis situation (Coombs & Holladay, 2002). Drawing on the interpersonal framework, attribution theory, SCCT considers the ways in which individuals attribute blame or responsibility for the crisis. It is important for the organization to understand how the public perceives the crisis event—Was the organization a victim? Did the crisis result from an accident? Was the reputation of the

organization in good standing before the said crisis event? Answering these questions assists the organization in evaluating reputational threat. Furthermore, the stakeholder's perception of responsibility is the key variable in SCCT (Sellnow & Seeger, 2013).

The SCCT posits that three general types of information are needed at the onset of a crisis—first, instructing individuals on how they can protect themselves physically, second, adjusting the information to help the affected individuals cope psychologically, and third, addressing the organization's reputation. Additionally, SCCT is organized into four postures of strategies—denial strategies, diminishment strategies, rebuilding strategies, and finally, bolstering strategies. It is important to note that organizations are not limited to choosing only one crisis response strategy. Many times, an organization chooses to employ a combination of the above responses.

Once organizations have assessed the crisis type and reputational threat, organizational spokespersons can employ an appropriate response strategy based on the following 13 recommendations:

- Provide instructing information to all victims or potential victims in the form
 of warnings and directions for protecting themselves from harm.
- 2. Provide adjusting information to victims by expressing concern for them and providing corrective action when possible. (Note: Providing instructing or adjusting information is enough of a response for victim crises in an organization with no crisis history or unfavorable prior reputation).
- 3. Use diminishment strategies for accidental crises when there is no crisis history or unfavorable prior reputation.

- 4. Use diminishment strategies for victim crises when there is a crisis history or unfavorable prior reputation.
- 5. Use rebuilding strategies for accident crises when there is a crisis history or unfavorable prior reputation.
- 6. Use rebuilding strategies for any preventable crisis.
- 7. Use denial strategies in rumor crises.
- 8. Use denial strategies in challenges when the challenge is unwarranted.
- 9. Use corrective action (adjusting information) in challenges when other stakeholders are likely to support the challenge.
- 10. Use reinforcing strategies as supplements to other response strategies.
- 11. The victimage response (when the organization is clearly the victim in the crisis) strategy should not only be used with the victim cluster.
- 12. To be consistent, do not mix denial strategies with either diminishment or rebuilding strategies.
- 13. Diminishment and rebuilding strategies can be used in combination with one another.

(Coombs, 2012, p. 159)

Unfortunately, it is possible that an organization might be able to use SCCT in an unethical manner, intended to manipulate stakeholders or the crisis event itself. Coombs and Holladay (2012) assert that this is not the intention of SCCT and that the primary concern should always be for the well-being of the people affected by the crisis. SCCT has been applied to various contexts including the Mattel toy industry (Choi & Lin, 2009) and non-profit organizations such as the Red Cross (Sisco, Collins, & Zoch, 2009).

Furthermore, SCCT is versatile enough to be used in experimental design settings, which lends this theory to quantitative analysis. However, SCCT concerns itself mainly with reputation and is unable to account for ethical complexities within crises (Sellnow & Seeger, 2013). In attempt to address the ethical implications noted above as well as view crisis events in a new light, the theory of organizational renewal emerged.

The Discourse of Renewal

The discourse of renewal moves beyond image restoration and repair to observe the opportunities for improvement introduced by crises. Ulmer et al. (2009) define renewal as "a fresh sense of purpose and direction an organization or system discovers after it emerges from a crisis (p. 213). Renewal differs from image restoration in that it offers hope and optimism for all parties involved (Seeger et al., 2005). Whereas resilience, or restoration, is seen as withstanding a crisis, renewal is a conscious choice to improve. Ulmer, Seeger, and Sellnow (2007) explain the discourse of renewal consists of four theoretical components—organizational learning, ethical communication, prospective vision, and effective organizational rhetoric. The four theoretical components are outlined below.

Organizational learning. The first component, and arguably the most crucial, is organizational learning. Crisis communication scholars have long considered learning essential to an effective response (Ulmer et al., 2011). Simon and Pauchant (2000) describe three types of learning essential to overcoming a crisis. The first type, behavioral learning, is considered to the lowest form of learning because actions are enforced by external control such as rules or regulations. In this type of learning, members are not internalizing the changes. Instead, members are following the guidance of regulatory

mandates. The second type of learning, paradigmatic learning, is similar to behavioral in that it involves external regulations, but it also includes changes enacted by the organization itself (Simon & Pauchant, 2000). Paradigmatic learning includes a proactive component that requires the organization to make changes in addition to the given rules and regulations. The third and final type of learning is systemic. An organization that employs learning prior to a crisis in hopes of preventing would be categorized as systemic learners (Simon and Pauchant, 2000). Learning informs renewal discourse by enabling the organization to "point out fallacious assumptions or unforeseen vulnerabilities" (Toelken, Seeger, & Batteau, 2005, p. 47). The challenge for organizations is to enact positive and lasting changes based on what they have learned from a crisis (Reierson, Sellnow, & Ulmer, 2009).

In addition to learning, Ulmer et al., (2011) suggest that organizations engage in open communication about their learning. In doing so, stakeholders are reassured that the organization is committing to renewal and ultimately crisis prevention. Examples of organizational learning are seen throughout various crisis management case studies. For example, organizational learning is visible in response to the September 11, 2001 terrorist attack. Immediately following the attacks that involved the hijacking of American commercial airplanes, all major airlines communicated their commitment to making any changes necessary to ensure safety and trust for stakeholders (Ulmer & Sellnow, 2002).

Ethical communication. Ethical communication is essential for organizations undergoing postcrisis management, but should also be in practice before, during, and after a crisis. Ulmer et al. (2011) argue that organizations that are not ethical in their behaviors will have to account for this failing in the wake of a crisis. Furthermore,

unethical behavior is often the cause of crises. Organizations that place their stakeholders' needs first through "openness, honesty, responsibility, accountability, and trustworthiness before a crisis are best able to create renewal following a crisis" (Ulmer et al., 2011, p. 215).

Ethical communication includes three components—stakeholder relationships, provisional response, and significant choice (Ulmer, et al., 2011). The importance of cultivating stakeholder relationships is a common theme throughout all stages of crisis management. Ethical communication with an organization's stakeholders prior to a crisis ensures a trusted relationship that is conducive to renewal after a crisis. The manner and context in which stakeholders are informed is also a concern for renewal. Whereas image restoration focuses on strategic communication that can spin or deflect blame, a provisional response is key in renewal (Veil, Sellnow, and Heald, 2011). Provisional communication employs a response based upon "the positive values and virtues of a leader rather than a strategic response that emphasizes escaping or recasting issues of responsibility or blame" (Ulmer et al., 2011, p. 216).

Lastly, ethical communication must include significant choice. Nielsen (1974) defines significant choice as "a choice based on the best information available when the decision must be made" (p. 45). Organizations should communicate ethically all of the available information to all of their stakeholders. By opening lines of communication, stakeholders can have access to any and all pertinent information thus able to make informed decisions about matters affecting their welfare. Doing so creates the best environment for free and informed decision-making (Ulmer et al., 2011).

Various case studies provide examples of ethical communication functioning as part of the discourse of renewal (Ulmer et al., 2011; Ulmer & Sellnow, 2002; Veil et al., 2011). One recent example involves Domino's Pizza. In April of 2009, two Domino's employees created a YouTube hoax that involved unsanitary and grotesque handling of food (Clifford, 2009). Ulmer et al. (2011) argue that Domino's president Patrick Doyle engaged in ethical communication during his crisis response. Doyle responded using the same channel (YouTube) enabling him to reach the same stakeholders who witnessed the hoax. Furthermore, Doyle discussed future hire screenings that would serve to prevent the possibility of another hoax. Lastly, Doyle was open and honest in his communication to stakeholders facilitating an environment of significant choice.

Prospective vision. The third theoretical component in the discourse of renewal is having a prospective vision. In essence, a prospective vision focuses on the future rather than the past (Ulmer et al., 2011). Organizations must continually look ahead and find the opportunities that exists in crisis situations (Mitroff, 2005). Focusing on opportunity during a crisis, however, is not always instinctive (Ulmer et al., 2011). Many instances of retrospective visions—looking at past error and placing blame—are traps in which organizations often fall victim. The handling of the aftermath of Hurricane Katrina in 2005 is one example of a retrospective vision. Postcrisis management involved blaming other parties and revisiting already made decisions. As a result, Ulmer et al., (2011) argue that renewal could not take place. Thus, organizations are best able to recognize and pursue opportunities emerging from crises when they focus steadfastly on the future, envisioning improved policies and procedures.

Effective organizational rhetoric. Inherent to organizational crisis is the rhetoric, or persuasion and inspiration, needed to overcome difficult situations (Cheney & Lair, 2005). Particularly crucial to the Discourse of Renewal is the rhetoric communicated to an organization's stakeholders and publics (Ulmer et al., 2011). Renewal is leader based, therefore, the leaders structure reality for organizational stakeholders and publics. Leaders must motivate stakeholders to trust the organization throughout the crisis (Ulmer et al., 2007). Furthermore, "organizations that distinguish themselves as models for their industries are more likely to experience renewal (Ulmer et al., 2011, p. 220). Leaders must strive to inspire others to adopt their views of crisis as opportunity for positive outcomes.

Several recent studies examine the ways in which organizational rhetoric was used both effectively and ineffectively (Ulmer & Sellnow, 2002; Seeger, Ulmer, Novak, & Sellnow, 2005; Ulmer et al., 2007; Ulmer et al., 2011; Veil et al., 2011). For example, Cantor Fitzgerald CEO Howard Lutnick's response to the September 11, 2011 terrorist attack's impact on his firm was an effective use of organizational rhetoric (Seeger et al., 2005). The vision that Lutnick created for his stakeholders had a clear impact on the firm's ability to create renewal (Ulmer et al., 2007). Likewise, the 2006 Red River Valley flood in North Dakota proved an example of effective organizational rhetoric due to the city manager's encouraging and informative messages during and after the flood. The community and state leaders framed the event not as a disaster, but rather as an inconvenience. This strategy created rhetoric of cautious confidence and furthered the town's capacity to engage in renewal (Ulmer et al., 2007).

To no surprise, not all organizations utilize or even consider effective organizational rhetoric. Ulmer et al., (2007) presented President George W. Bush's address following Hurricane Katrina as an example of organizational use of ineffective rhetoric. Bush's seemingly reassuring words were contradicted by his decision to remove generators after his speech, leaving the city dark and powerless. Furthermore, New Orleans Mayor, Ray Nagin, made many public, critical remarks about the nation's response to Hurricane Katrina, highlighting the treatment and mistreatment of a predominantly African-American demographic. Mayor Nagin's rhetoric served to perpetuate already existing race issues and thus constructed a critical view of the nation's response to Hurricane Katrina and its citizens (Ulmer et al., 2007). Discussion of Hurricane Katrina and the government's response provides a very real example of the lasting impact ineffective organizational rhetoric can produce.

Rather than focus on the negative, scholars began to reframe the way they viewed crisis events. The discourse of renewal was the first to suggest that opportunity can be discovered in crisis events. Unlike previous postcrisis theories, the discourse of renewal looks beyond repairing and withstanding a crisis, to finding opportunity and bettering organization in its precrisis state.

Community Engagement

The risk and crisis communication literature include work from a variety of disciplines outside of communication including sociology, public health, and public relations. A myriad of applied research strategies has proven fruitful to the field of risk and crisis communication, though few scholars have implemented participatory research into their work. It is imperative that organizations consider their stakeholders' needs and

concerns for optimal risk assessment, crisis response, and postcrisis communication. In this regard, participatory research lends itself nicely to the genre of risk and crisis research, specifically the theory of organizational renewal.

While the discourse of renewal provides a conceptual framework for organizations following a crisis, much of the literature places emphasis on renewing within the organization and neglects the surrounding factors affected by the crisis.

Participatory communication strategies, ones that aim to involve the surrounding community, can complement the discourse of renewal by addressing the factors outside of the organization. The following passage provides aspects of participatory communication, namely community engagement, to expand the understanding of how of organizations can renew.

Participatory Communication

Participatory research is based on the works of psychologist, Kurt Lewin, who initially set out to boost the self-esteem of minority groups to order to help them gain independence (Adelman, 1993). Participatory research stems from the epistemological assumption that knowledge is a social construct therefore research must allow for social, group, or collective analysis of life experiences (Hall, 1999). Adjectives such as "indigenous", "self-governing", and "emancipatory" are often used to describe this area of research (Jacobson & Kolluri, 1999). Though many formal definitions of participatory communication exist, Nair and White's (1993) definition best fits this study's agenda as it provides concrete verbiage detailing the role of organization (source) and receiver (community):

The opening of dialogue, source, and receiver interacting continuously, thinking constructively about the situation, identifying developmental needs and problems, deciding what is needed to improve the situation and acting upon it. (p. 51)

It is important to note that when participatory researchers embark on their studies, there is no set recipe or cookbook available to guide participatory research. Rather, methods should grow organically from within the communities involved. The chosen method for this case is thematic analysis and it will be described in detail in the chapter that follows. Since its introduction to the United States in the early 1960s, participatory research has expanded to tackle many critical issues. Those most closely related to risk and crisis communication involves studies of environmental risk communication (Santos & Chess, 2003) and the reduction of organizational risk (Novak & Sellnow, 2009). The following section provides an overview of one participatory communication theory that will be utilized in this dissertation—the theory of communicative action.

The Theory of Communicative Action

A product of Jurgen Habermas, communicative action theory attempts to understand society within the framework of a critical theory (Jacobson & Kolluri, 1999). More specifically, communicative action serves to transit and renew cultural knowledge in a process of achieving multiple understandings. It then coordinates action toward social integration and solidarity. Based on its critical ties, communicative action is influenced by the works of Max Weber, Talcott Parsons, and Karl Marx. Communicative action theory is guided by the quest to rational assessment, the "pursuit of the good life" (p. 29). One practical way to evaluate the means by which knowledge is produced is

through the analysis of the ideal speech situations consisting of four validity claims (Habermas, 1979). The four validity claims are as follows:

- 1) Truth—the validity of the content of the speaker's utterances. In this case of Santos and Chess (2003), the speaker being the organization attempting to manage risk.
- Rightness—the appropriateness of the statement made by the organization in relation to specific cultural norms within the larger community.
- 3) Sincerity—the genuineness of the organization's good intentions in communication (both in risk management and crisis communication).
- 4) Comprehensibility—whether all affected communities and stakeholders universally understand the expressions used in communication.

All stakeholders involved in the communicative transaction have the ability to make any of these four validity claims. Interacting with one another allows for uncertainties and disagreements to reach the surface and thus become a focal point. In an ideal validity claims interaction, all parties' voices are heard (Habermas, 1979). As a result, communicative action serves as a conceptual "theory to address the fairness, cooperation, and collaboration in public participation, in which suggests that communication is the root of cooperation and will ultimately result in fairness and trust" (Santos & Chess, 2003, p. 6). Trust is important, as it is a foundational component to building and maintaining partnerships between organizations and stakeholders (e.g., TVA and the surrounding community).

Several studies have utilized Habermas' conceptual framework as a means for analysis between parties separated by power distance. Santos and Chess (2003) used communicative action theory to evaluate the United States' Army Advisory Board's communication to the public and surrounding stakeholders. The study included analysis of media reports, community surveys and focus groups, as well as interviews with individuals serving on the advisory boards. Results indicated that when used in an applied setting, communicative action allows for all parties and voices to be heard. As a result, fairness and competence of all involved parties becomes a priority and a goal.

Additionally, Yuthas, Rogers, and Dillard (2002) conducted an inaugural study design that used Habermas' norms for communication action as a guiding force to understanding how corporate annual reports function as a means of public discourse. Yuthas et al. found that firms expecting both good and bad earnings exhibited a higher level of communicative action than an average-operating firm. This study was the first to assess corporate communication by means of Habermasian tenets.

The studies above inform the literature that community perception and community involvement are influenced by the presence or absence of communicative action. Communicative action will function as a conceptual framework to evaluate the community member interviews for this study with the goal to reveal a community component of renewal in postcrisis communication. The following chapter details the chosen methods to both collect and analyze the TVA coal ash case.

Since its introduction to the United States in the early 1960s, participatory research has expanded to tackle many critical issues. Those most closely related to risk and crisis communication involves studies of environmental risk communication (Santos

& Chess, 2003) and the reduction of organizational risk (Novak & Sellnow, 2009). The following section provides an overview of community engagement at large as well as in the postcrisis phase.

Community Engagement in Postcrisis Communication

This section provides an overview of how scholars have analyzed community engagement in situations of crisis. While this may ring true for many case studies, the TVA coal ash spill id unique in that its stakeholders were rural community members with little to no internet access. The following section provides insight into how collaboration and engagement can work to build trust and foster mutually beneficial relationships.

A study of community engagement during catastrophic health events suggests that there are a range of techniques leaders can institute to mobilize the civic infrastructure. Communication, consultation, and community engagement are of the top three recommended techniques. "Research and practical experience indicate that community engagement, which complements mass communications, may help leaders tackle some of the more intractable problems posed by extreme events" (Schoch-Spana et. al, 2006, p. 14).

Similarly, Goldstein (2011) likens current community engagement techniques to that of city planners during the urban renewal phases of the 1970s. "As collaborative planning developed, scholars began investigating how trust and interdependence acquired by stakeholders could not only resolves disputes, but also transform adversarial relationships and catalyze new institutions" (p. 7-8). The ability for planners and

organizations to gain trust through collaboration was significant then as it is still significant now.

The idea of community engagement in building trust and renewing following a crisis is not new, but the TVA case provides a unique situation where lack of trust is high and mediated access to the community is low. The next chapter will discuss how the data was collected and analyzed with regard to the theory of organizational renewal and community engagement.

Chapter Three: Methodology

This chapter describes the data collection methods used in the current study. Previous literature suggests case study research is most useful in settings where the researcher has little or no control over the event (Yin, 1994). Due to the nature of the 2008 Kingston coal ash spill, this event lends itself to an in-depth, case study of postcrisis communication, one in which there is a clear, at-fault origination as well as a directly affected surrounding community. Case study methodology is particularly well suited for studies where the primary goal is to answer questions of 'why' and 'how' (Riley, 2000; Yin, 2003). The current study seeks to further understand by answering the following research questions"

RQ1: To what extent were the tenets of organizational renewal theory apparent in TVA's postcrisis communication response?

RQ2: In what ways were community members involved in the postcrisis phase?

RQ3: To what extent did community engagement impact the renewal process?

Collectively, these three questions seek to address how community members were involved in the postcrisis phase and to what extent the engagement had a unique impact on the renewal process. Riley (2000) reminds us that the point of a case study approach is not to replicate the phenomenon in a laboratory or experimental setting. Rather, the important strength of case studies is to "undertake an investigation into a phenomenon and its context" (p. 18).

In this specific case, the very size of spill and the blame connected to TVA garnered national media attention. Closer to home, the spill resulted in angry Roane

County residents demanding action. TVA's response to the spill, including the ways in which they addressed the demands of the community, created a complex social phenomenon—one fitting for an in-depth, case study analysis.

Data Collection Procedures

The researcher began collecting data for this study in September of 2011, as part of a funded research grant for the United States Environmental Protection Agency (EPA). The agency was seeking an evaluation of postcrisis communication following crisis events with instances of water contamination. The data was so rich with content and potential that the researcher expanded the current study to become a doctoral dissertation. The data for this study was collected in two ways. First, from information gleaned on the official Kingston *Recovery* website, and second, through semi-structured interviews with high-ranking officials and Roane County community members.

Kingston Recovery Website. The researcher first discovered the organization's website through the Google search, 'TVA coal ash spill' while conducting preliminary research. The homepage stated that TVA created the website in early 2009 to serve as a primary source for information and updates for the surrounding community and public at large. Beginning with the homepage, the *Kingston Recovery* website was categorized by several navigational tabs. The tabs were labeled as such—About, For Residents, For Media, Environmental Reports, Current Progress, and Contact Information. One of the primary research questions of this study aims to observe what tenets of renewal were apparent in TVA's postcrisis response, thus guiding the researcher to identify content relating specifically to organizational learning, ethical communication, organizational rhetoric, and prospective vision.



Figure 3.1, Kingston Recovery Homepage

Majority of information relating to the Kingston Recovery Project can be found on this site. Its appearance is not overly technical, and it functions as a user-friendly database from a research perspective. The main page provides several aerial views of the current stage of the recovery process. The images reflect green grass, healthy trees, and clean water. At the time of data collection, no images on the main page show photographs containing coal ash. This is a stark contrast from previous main page images over the past several years. The current imagery is that of a pleasant and renewed landscape.

Visible in Figure 3.2, the left-side panel of the home page, users can access a variety of databases. The first option at the top of the list is titled "For Area Residents", prioritizing the needs of the community over the other possible options—media reports, government documents, education initiatives, videos, and photographs.

In addition to providing information for area residents and community members, TVA also designates two areas on their homepage that elicits questions and concerns.

The "Talk to TVA" column provides a point of contact via e-mail address as well as a place for comments. TVA also provides the option to sign-up for an e-mail list, which sends updates and news to its users. These options serve to show TVA's commitment to keeping its stakeholders informed.

The "For Area Residents" page includes an archival log of weekly updates to website users from the start of the spill with the last entry is dated May 1, 2014. Each post follows a similar format with subheadings and updates. Recent posts include updates regarding Cap and Cover, Swan Pond Embayment Recreation and Restoration, and Monthly Public Tours. A screenshot of this portion of the Kingston Recovery Project provided below.



Figure 3.2, Landfill Site Progress

The result was as follows: Kilgore's congressional testimony from 2009, the Community Involvement Plan (91 pages), the Community Involvement Plan Responsiveness Summary (13 pages), the Revised Community Involvement Plan (94 pages), the *Kingston Ash Recovery Fact Sheet* (2 pages), the *Report to Our Neighbors* (12 pages), and transcripts from 11 public meetings between the years 2009-2013. The fact sheets and progress reports provided physical examples of changes made since the 2008 spill and allowed us to compare Kilgore's goals from his testimony to the future and current state of the Kingston Recovery project.

Ultimately, these aforementioned sources were used to analyze TVA's efforts following the spill as they related to the theory of organizational renewal. In order to do so, the researcher structured the analysis around the four key components of renewal: organizational learning, ethical communication, prospective vision, and effective organizational rhetoric. Kilgore and TVA were challenged to not only recover from the coal ash spill but to restructure their organization to regain trust from those individuals affected by the spill. As Jameson (2008) argues, this humanistic approach to crisis communication has provided "important insights into the role that communication played in major business events" (p. 507).

Archival records include services records, organizational charts and budgets, maps and charts of the geographical characteristics or layouts of a place, list of names or relevant items, survey data or other data previously collected about a site and personal records such as diaries, calendars, and telephone listings (Yin, 2003). As the case studies vary, so will the importance or relevance of these texts.

These records include TVA Chief Executive Officer, Thomas Kilgore's 2009 testimony before Congress as well as discourse from TVA's Kingston Recovery website (www.tva.com/kingston), a website dedicated specifically to updating the public about the status of the cleanup as well as disseminating future plans for the area.

Chief Executive Officer Kilgore's 2009 testimony before Congress was included in this data set because it was one of the first and most public addresses to various stakeholders following the 2008 coal ash spill. Within the testimony transcription, we hear hints of renewal and organizational rhetoric that served to frame the recovery process that was to follow. The discourse of renewal is based heavily in leadership rhetoric and Kilgore's address before Congress is one form of TVA's leadership that guided the recovery process. The testimony also provided a clear set of goals and corrective action plans, all integral elements of the organizational theory of renewal, for the upcoming years.

Direct Observation

Direct observation, or visiting the site, is another form of evidence in a case study. If the case is not purely historical, and relevant behaviors or environmental conditions are available for observation, this source will prove beneficial to the case study. Observations of an organization or neighborhood can provide context that reports and interviews cannot (Yin, 2003). If permission from the site is granted, a direct observation might even provide the opportunity to take pictures and document the case in a new light.

Interviews

Last, but certainly not least, interviews can provide immense value to case study research. While interview types may vary, the researcher is reminded to follow a structured interview approach that stems from the research questions and research objectives (Yin, 2003). Interviews should remain open-ended so that the respondent can provide insight and opinion with regard to the case.

TVA Case Study Interviews

One objective for this study was to assess the level of renewal that TVA and the surrounding community engaged in following the coal ash spill. In order to best meet this objective, qualitative interviews were conducted to gain the unique perspective of TVA and Roane County officials. Qualitative interviews are appropriate for this type of study because interviews are "particularly well suited to understand the social actor's experience and perspective" (Lindlof & Taylor, 2002, p. 173). Personal interviews give the researcher the opportunity to learn information that cannot be gleaned from the information on the Kingston Recovery website.

Each participant interviewed for this study had an active role in the crisis and postcrisis communication that followed the 2008 coal ash spill. Thus, the participants were able to offer a first-hand account of the recovery process from an elite's perspective following the crisis event. The insight provided by those interviewed allowed the researcher to assess the discourse of renewal framework, which can help to better understand the organization's role in the postcrisis phase. Furthermore, the interview data clarified and confirmed what the researcher found in the media reports and government documents with first-hand accounts.

The participants were recruited based on their role in the ongoing recovery process at the TVA coal plant. The first interview took place in April of 2012 at the TVA Fossil Fuel Plant located in Roane County, Tennessee. The voluntary interviewees were TVA Vice President of Communications, Emily Reynolds and TVA Communications specialist, Katie Kline. The semi-structured interview lasted approximately one hour and resulted in eight pages of typed interview notes. The second interview was conducted via

telephone with Roane County Mayor, Troy Beets in August of 2012. This interview lasted approximately 35 minutes and was recorded and later transcribed resulting in 11 pages of typed notes.

In structured interviews, researchers ask participants questions previously constructed for the interview script (McCracken, 1988). For this study, a semi-structured interview approach was used which allowed participants to deviate from the script and offer their own unique perspective. As required by the Institutional Review Board (IRB), participants were read a consent form to which they verbally agreed to prior to the start of this study. The interviews with TVA officials were conducted face-to-face and it was at their request that the researchers did not audio record the interview. As a result, the 3 researchers present took extensive notes, which were then compared and compiled into 8 pages of typed notes to best ascertain accuracy of the data. The telephone interview with Roane County Mayor Beets was granted audio recording permission which resulted in 11 typed pages of transcriptions. The primary researcher transcribed the telephone interview to remain close with the data.

Interview questions were guided by four components of organizational renewal—organizational learning, ethical communication, prospective versus retrospective vision, and effective organizational rhetoric (Ulmer, Sellnow, & Seeger, 2011). Participants were first asked to discuss the role their affiliated organization or office had in the recovery process following the coal ash spill. Next, participants were asked to evaluate the crisis and postcrisis communication in terms of what was done well and what could have been done better. Interview participants were asked to answer the above questions based on

their role as an individual as well as their role in their affiliated organization, such as a TVA official, town mayor, or community group organizer.

As discussed in the previous section, the reflexivity of the researcher is a crucial component to qualitative case studies. Upon completion, the interview notes and transcriptions were sent to the respective participants to be reviewed for accuracy of the communication that took place during the interview. Minor changes were requested from Reynolds and Kline, requiring the researcher to edit the notes to meet the needs of those participants. Nonetheless, the edits were minor and did not change the overall themes recorded in the initial interview notes.

Many times, a variety of sources are used in case study research to reach validity in the form of triangulation—an overlap and corroboration of findings. The interviews conducted for this study allowed the researcher to see the participatory aspects involved in this renewal process, as these actions were not always addressed in the archival records available on the Kington Recovery page. The next section discusses how the necessity of triangulation to resolve issues of validity and reliability.

Integrity of Case Study Research

As with all social science research, it is crucial that validity, reliability, and reflexivity remain a priority when using the case study method. The section below will address the ways in which the researcher attended to the ethical concerns of case study research.

Both qualitative and quantitative research requires reflexivity in order to contribute unbiased, meaningful work to a field of knowledge. By definition, reflexivity

is the ability of the researcher to "bend back upon oneself" by continuously asking questions of involvement, bias, and understanding (Babcock, 1980). Reflexivity in research is both a process of understanding how knowledge reached and produced.

Throughout this study, the researcher diligently reflected on the questions asked, data collected, and results discovered. Fortunately, the researcher had no personal connections to the case or opinions regarding TVAs response prior to the onset of this study. This ignorance serviced the researcher in maintaining an objective stance throughout the formational of research questions, data collection and data analysis.

Procedures

As outlined above, this dissertation is based on a qualitative case study consisting of archival documents, interviews with several Tennessee Valley Authority (TVA) executives, one Roane County, Tennessee city official, and members of the Roane County Advisory Committee. This section will address the methods used to both collect and analyze the data set used in this study.

Direct Observation

While conducting interviews onsite at the Kingston Fossil Fuel Plant, the researchers were invited to a tour of the outside facilities for a firsthand account of the recovery progress. Prior to visiting the plant, the researcher reviewed the archival documents including site maps, photographs taken the morning after the spill, and videos of TVA's progress. The tour was guided by Reynolds and Kline and began at the infamous riverbank where the bulk of the coal ash spilled. Following the riverbank, the researchers were taken to a newly created outlook point created specifically for the public

and local community to have visual access to the recovery progress. Finally, the researchers were driven around the surrounding neighborhood where TVA bought several pieces of private land affected by the spill. While onsite, the researchers recorded notes and were permitted to take photographs. Those documents were included in the dataset as part of direction observation for this case study.

Archival records, interviews, and direct observation created a fruitful dataset for the study of TVA's postcrisis response. Now that the procedures of method collection have been addressed in full, the next section will describe how the totality of the dataset will be analyzed.

Data Analysis

Qualitative data analysis is concerned with transforming raw data by searching, evaluating, recognizing, coding, mapping, exploring and describing patterns, trends, themes and categories in the raw data, in order to interpret them and provide their underlying meanings. This process is referred to as inductive analysis and creative synthesis (Patton, 2002).

Often times, qualitative data analysis is labor intensive and time consuming due to the nature of the data itself. Additionally, qualitative research designs or approaches are as diverse as the sources of data itself. Lengthy interviews, large volumes of text, as well as other extensive artifacts require reading and re-reading to make sense of the major themes and meaning of the data. In this case study, in-depth interviews, archival records from the *Kingston Recovery* website, as well as notes from visiting the site were all included in the analysis. The research questions served as a guide for conducting the

analysis, for example—each question became a major coding category with possible subcategories. At the start of chapter four, a brief example of the coding scheme is discussed for each specific research question. The general data analysis is outlined below.

First, a timeline of events that occurred during the crisis was created using various national news organizations and used to contextualize the event. (see Table #). Next, thematic analysis was used to examine each tweet's message. Thematic analysis focuses on "identifying and describing both implicit and explicit ideas within the data" or themes (Guest, MacQueen, & Namey, 2012, p. 20). The analysis was categorized in accordance with the tenets of organizational renewal. The analysis for research question one followed an inductive approach based on the four stages of organizational renewal including: organizational learning, ethical communication, a focus on a prospective vision, and effective organizational rhetoric.

This chapter situated the case study method as the most appropriate means of analysis for the evaluation of TVA's postcrisis communication after the 2008 coal ash spill. Beginning with data collection, the researcher included archival records, conducted in-depth interviews, and participated in direct observation of the site. Following data collection, the researcher outlined the steps taken to thematically analyze the content. In the next chapter, a full analysis of the complete dataset is conducted.

Chapter Four: Analysis

The major findings for each of the three research questions are included in this chapter. An example of the thematic analysis used to address each question is given at the start of this chapter.

The first research question asks to what extent were the tenets of organizational renewal apparent following TVA's postcrisis response? The results and analysis for the first research question focus on the tenets theory of organizational renewal (e.g., organizational learning, ethical communication, prospective versus retrospective vision, and effective organizational rhetoric). The researcher analyzed the complete dataset for emerging themes of renewal in the dataset comprised of archival records from the Kingston Recovery website, as well as semi-structured interviews conducted during the postcrisis phase.

For example, interviews with TVA administrators revealed that an ill-fitting crisis plan was in place prior to the coal ash spill, hence making the immediate response more difficult. In an interview with TVA Vice President of Communications, Reynolds, stated that following the initial response stage, TVA created additional crisis plans and updated the few previous ones to better prepare for unforeseen and unexpected crises such as the coal ash spill. TVA's decision to create and update plans is a stark contrast from the organization's previous organizational protocol. The creation of new crisis plans demonstrates renewal's tenet of organizational learning and provides data that supports TVA made changes to organizational procedures in hopes for improved crisis responses in the future, thus engaging in one tenet of the renewal process. Throughout the analysis,

the researcher reviewed the dataset for emergent themes of organizational learning, as well as themes of ethical communication, prospective vision, and organizational rhetoric.

The second research question asks, "In what ways was community involvement observed in the recovery phase?". To observe community involvement, the researcher analyzed the content created for and disseminated to the surrounding community in addition to interviews with community members directly involved in the process. TVA created a website designated entirely to the Kingston coal ash spill and its recovery, (Kingston Recovery, 2009) which archived all public communications regarding the Kingston plant recovery and provided a fruitful dataset for analysis.

The Kingston Recovery website became a vault of information for not only community residents, but also outside stakeholders or media personnel who sought additional information about the process and progress of the stated recovery stages. Majority of the data gleaned for assessing community involvement came from the Kingston Recovery website and its pages and documents directed at community residents. For example, a document located on Kingston Recovery website, titled *Community Involvement Plan*, provided detailed information regarding collaboration between TVA and the Kingston residents—including dated sign-in sheets for public meetings, transcribed community meetings and Q&A's from the residents, as well as future plans.

The final research question asks, "In what ways did community involvement impact the renewal process? While previous literature alludes to renewal as often self-serving to the organization, the inclusion of participatory communication could rectify that notion and reveal a greater renewal. A renewal in which affected community

members trust that the organization has its best interests in mind and are actively involved in the postcrisis recovery process.

The subsequent sections will be organized as follows—each research question will be stated then followed by rich description and analysis of the study's findings using relevant examples from the data. Each section concludes with a summary of the general findings. To begin, the next section addresses the first research question by discussing the data as it relates to the components necessary for organizational renewal.

RQ1: To what extent were the tenets of renewal apparent in TVA's postcrisis response?

Organizational Learning. Ulmer et al., (2011) contend organizations should communicate messages of learning to their stakeholders in order to demonstrate crisis prevention and increase chances of renewal. Organizational learning is demonstrated both through the acknowledgement of past failures that led to the Kingston spill as well as commitment to address and change past failures. Three months after the coal ash spill, TVA CEO Thomas Kilgore provided testimony before the U.S. House Committee on Transportation and Infrastructure Subcommittee. In the very opening statement, Kilgore first introduces the concept of TVA learning from the spill, "We are also very committed to sharing information and lessons-learned from this event and the recovery with those in regulatory and oversight roles, such as this committee, and with others in the utility industry" (Kilgore, 2009a, para 4). Kilgore's statement acknowledges that TVA is learning as well as the possibility of others in the industry to learn from this recovery as well.

In 2011, TVA posted updated fact sheets to its webpage, which reported the most recent recovery progress. The purpose of these addresses was to inform stakeholders of current rebuilding efforts but also to assure the public that organizational learning was taking place in the hopes that future incidents may be prevented. Organizational learning is demonstrated both through the acknowledgement of past failures that led to the Kingston spill as well as commitment to address and change past policy.

One way that Kilgore, on behalf of TVA, showed commitment to preventing another spill was through the implementation of new alert systems as well as new modes of storing coal fly ash. Kilgore committed to specific changes within TVA with the intention to prevent a future spill. In response to the coal ash spill, TVA created and implemented the Corrective Action Plan. Kilgore (2009b), explained "this plan provides a framework for making future decisions about environment remediation, monitoring during cleanup activities, for protecting water supplies, protecting work and public health, and management of spilled ash and future ash produced at Kingston" (p. 7). The Corrective Action Plan demonstrates learning from the Kingston spill as well as preventive measures for the future.

Additionally, TVA ordered a comprehensive internal investigation conducted by the law firm of McKenna Long & Aldridge (MLA). MLA inspected the Kingston site as well as all remaining coal-by-product facilities and identified six primary failures:

- lack of clarity and accountability
- lack of standardization
- poor communication

- lack of checks and balances,
- lack of prevention priority and resources
- reactive over proactive response (Ide & Blanco, 2009).

In response to these failures, TVA demonstrated organizational learning in two ways. The first, accepting responsibility for previous failures, Kilgore (2009a) acknowledged and addressed all six failures. He outlined ways in which TVA was working to better their training and performance. Included in the changes were specific regulations such as mandated inspections, standardized design philosophy and construction of management facilities, and better self-assessments and self-reporting (Kilgore, 2009a).

Furthermore, TVA conducted studies in addition to the internal investigation to ensure that another Kingston spill would not happen. TVA tested dike walls and evaluated the strength of the structures. This step was not done prior to the Kingston ash spill but it is not part of TVA's prevention plan. In one of the first addresses after the spill, Kilgore reported that TVA was "looking at the feasibility of converting to dry fly ash storage at all six plants where wet storage is used" (Kilgore, 2009a, para. 28). Over the past 30 years, government regulation has been working from wet to dry ash conversions. Wet ash storage is more conducive to operational failure, groundwater contamination, and health risks (Charnut, 2010). In 2011, TVA reported that it "has made sure that all 24 coal ash ponds at TVA's 11 fossil plants meet industry stability standards" (para.17).

The experienced organizational learning didn't stop there. In an address to the public Kilgore (2009b) reported that the TVA was committed to "sharing information and lessons-learned from this event and the recovery with those in regulatory and oversight roles" (para. 4). TVA viewed this crisis as an opportunity not only for TVA to better themselves, but for others to learn from the incident as well.

Even after Kilgore left TVA, the organization continued to promote learning and progress. Just recently, *Fierce Energy* reported that current CEO and president, Bill Johnson said, "We all know this incident shouldn't have happened. But we have learned from it and we are fulfilling our commitment to making it right." (p.4, 2014) The report goes on to discuss the ways that both TVA and EPA are redesigning how coal fly ash is collected and stored.

TVA also utilized their *Kingston Recovery* website to convey instances of learning. In one PDF created specifically for the community, titled "To Our Roane County Neighbors", TVA reflected on two lessons learned on the subject of communications. In one instance, TVA had not notified the community and surrounding neighborhood on a test that was being conducted at the Kingston plant. This test resulted in "snow-life flakes" emerging and landing on neighboring properties. According to TVA, the flakes were about 80 percent coal ash and related materials (To Our Roane County Neighbors). As a result, the unexpected flakes caused alarm and frustration among the community. TVA noted that "The lack of communication in this situation was completely avoidable; communication and listening will improve even further" (p. 4).

The second lesson learned is very similar to the one stated above—it is another incident where TVA failed to notify the community about an upcoming test and when

water-vapor emissions were noticeable, worry and concern ensued. While these emissions were not harmful, "TVA learned once again that it must continually communicate with regulators and neighbors near the Kingston plant" (p. 5).

The final lessons point to the importance of communication, which TVA addressed as a weakness at the onset of the coal ash spill. The following section assesses the communication more fully under the second tenant of renewal—ethical communication.

Ethical Communication. The news reports surrounding the December 2008 coal ash spill were scathing at best. Local and national newspapers covered this story with firsthand reports as well as local community commentary. The following passages help set the scene for the type of news coverage that TVA initially received. One article from *The Chattanooga Times Free Press* reported:

The failure of a 40-acre TVA retention pond for toxic coal sludge in nearby Harriman, Tenn., is a major environmental disaster. Perhaps worse, it is a disaster that should not have occurred, yet one, given prior lesser leaks at Harriman, that the Tennessee Valley Authority should have known was likely" (*The Chattanooga Times Free Press*, 2008).

The above passage serves to address the severity of the spill as well as the belief that many thought the spill was preventable from the onset of news. This belief was not uncommon amongst other local and national news outlets. Just two days after the spill, the *Knoxville News Sentinel* reported "Greenpeace called for a criminal probe into what it

alleges was TVA's failure to prevent the spill, while the Southern Environmental Law Center called for tougher regulations" (*Knoxville News Sentinel*, 2008).

Additionally, the media were not the only ones faulting TVA for this human-made disaster. The surrounding community and local residents also attributed fault to TVA for this mess. TVA acknowledged their faults and the media and surrounding community were quick to confirm that mistakes were made during TVA's initial response to the coal ash spill.

While Kilgore reported that "TVA followed its approved Agency Emergency Response Plan" during his testimony in March of 2009 (Kilgore, 2009a), TVA officials, Emily Reynolds and Katie Kline humbly reported that TVA had no real plan in place for this type of disaster.

Upon first hearing of the ash spill, residents looked to TVA officials to offer communication that would guide their actions and appease their concerns. Throughout the aftermath of the spill, TVA made communication to and from the public a top priority. President and CEO of TVA, Thomas Kilgore, addressed the public on several occasions soon after the spill. Additionally, TVA maintained constant communication to its public and stakeholders via media reports and interviews and most importantly, the TVA website. There are nearly 40 PDF documents and reports regarding the Kingston ash spill available to the public that indicate exactly what happened, the environmental effects, and future plans for recovery.

Early groundwater monitoring wells are being installed, as needed, at selected locations to ensure protection of water supplies deemed by TDEC (Tennessee

Department of Environment and Conservation) to be a potential risk. Sampling frequency will vary from quarterly to semiannually during the first year depending on proximity of each well or spring to ash deposits. The frequency and ultimate duration of sampling of off-site wells and springs will be re-evaluated annually by TVA and TDEC based on monitoring results and perceived risks. Water samples will be analyzed for several constituents.

Kilgore (2009a) reports, "the initial response by the Roane County, Tennessee, Emergency Management personnel along with the Tennessee Emergency Management Agency was excellent" (para. 9). TVA's primary concern was the safety of the public. According to reports, the three families that lost their homes were setup in temporary housing and supplied with meals and other necessities. A 1-800 number was created along with a facility that opened 7 days a week to handle property damage, questions, and concerns. Kilgore (2009a) states "this was in addition to a telephone line we began staffing around the clock shortly after the incident" (para. 12). All of these efforts served to provide open and ethical communication to the public about the spill and in order to ensure their safety.

Additionally, after the public doubted the dike inspection procedures prior to the spill, TVA made certain to address this concern with the public. Kilgore reported that findings from the October 2008 inspection were still being compiled at the time of the spill. It was not until several months after the spill that a leak was brought to their attention. Kilgore remained firm in that "initial reports indicated no noticeable increases in seep flow were observable during the 2008 inspection" (Kilgore, 2009a, para. 8). The controversial topic was addressed openly to the public and the report's findings were

posted on the TVA website as soon as they were made available. Again, these actions show Kilgore and the TVA's dedication to open communication to the public and stakeholders.

Prospective Vision. A key device in working toward organizational renewal is looking forward the future and focusing on progress rather than addressing past elements of cause. While TVA's early stages of postcrisis communication did focus on the causes of the coal ash spill, it was a response to community wants and needs as outlined in the *Community Involvement Plan Responsiveness Summary* (see Appendix). TVA spent much of the early stages responding to the physical crisis and fielding questions from the community and public.

Before long, TVA began producing communication that included future outlooks and many of these documents were catered directly to TVA's neighbors and members of the surrounding community. In June of 2009, TVA released a "Letter to our Neighbors" which was essentially a newsletter for Roane County residents. While it is unclear whether the newsletter was received in paper form, it was available on the Kingston Recovery website during the time of this analysis. The final section of that newsletter, *Looking Ahead*, communicates the future plans of TVA in collaboration with the community:

This summer, we will reach some additional key milestones in the recovery effort. Dredging of the Emory River continues, and we will soon begin transporting the ash off-site to an approved Class 1 landfill. With the help of area residents, we will develop a Community Involvement Plan. (*A Letter to Our Neighbors*, 2009).

The letter ends with TVA promising that future progress will be communicated in reports like the Letter to Our Neighbors, however, none are listed on the Kingston Recovery website outside of this singular document.

TVA engaged in the third component of renewal by communicating future plans and thus creating a prospective vision for the organization. In past instances, organizations focus attention on past behavior and blame placement. Ulmer et al., (2011) states that a prospective vision is marked by optimism. Kilgore's testimony coupled with recent TVA updates suggests optimism in two ways—significant progress thus far as well as the reassurance of safe environments to come.

TVA outlined changes made over the past two years with particular attention to those that worked well. Kilgore (2009b) implicitly states the cleanup made in just a few short months after the spill. Some notable changes mentioned included clearing more than 350,000 cubic yards of material from the areas around the spill site. A rail line was reconstructed within a month of the spill enabling coal deliver so that electricity could be restored. On the TVA Kingston website, a video clip juxtaposes aerial views of the spill site in December 2008 up until May 2011. A clear and noticeable difference in landscape, sludge removal, and site reconstruction is visible. This video provides a literal vision of the progress made in the past three years.

Kilgore's testimony immediately after the spill and until the end of his time at TVA projected a safe future environment for the Kingston area as well as other TVA locations. Immediately following the coal ash spill, Kilgore's testimony (2009a) suggests several future plans. Most importantly, Kilgore expressed confidence that TVA will do "a first-rate job of containment and remediation of the problems caused by the spill" (2009a,

para. 31). Additionally, "We are going to be able to look our neighbors in the eye and say that TVA is doing the right thing" (para. 31). Reassuring statements such as these serve to keep stakeholders looking toward the future of TVA. The future of the Kingston site as well as future of other TVA facilities was central to Kilgore's testimony and recent TVA website information. TVA avoided a retrospective vision other than to address the case and initial spill. Dwelling on previous failures and placing blame was not found in the addresses to the public and stakeholders

Effective Organizational Rhetoric. Organizational rhetoric is a powerful component in the Discourse of Renewal when used effectively. The TVA was faced with a challenge to not only recover from the coal ash spill, but also to rebuild the organization and its future. This challenge did not go overlooked. Rather than dwell on the crisis and attempt only to withstand it, the TVA looked for the opportunity to renew. According to Kilgore (2009b), the TVA made a commitment to "look for opportunities, in concert with the leaders and people of Roane County, to make the area better than it was before the spill" (para. 3). The notion of finding opportunity within crisis is imperative if an organization hopes to engage in the renewal process. Several years later in 2011, TVA released an updated fact sheet on its webpage that embodied the same message—making the Kingston site better than it was before the crisis.

While the TVA focused on creating a vision for the future, it was not insensitive to the devastation and affected individuals. Kilgore told the public:

I know that technical data and monitoring equipment do not make the physical effects of the situation go away. But I hope that the results of the environmental monitoring data during the past three months and the

objectivity provided by multiple agencies and certified labs will help reassure the public. (Kilgore, 2009b, para. 31)

This statement entailed effective rhetoric that showed TVA was empathetic toward its public. Additionally, concern for stakeholders assisted in rebuilding TVA's ethos and credibility during the postcrisis phase.

Furthermore, the Kingston Recovery Updates (2011) point to giving back to the community. Of the 900 acres of affected property purchased by TVA, leaders reported that some of that land would be made available for "community use and green space" (TVA, 2011, para.15). In addition to giving recreational land space to the community, TVA also pledged \$32 million to projects at nine different schools (TVA, 2011). These efforts hoped to solidify TVA's place in the community as a generous organization that is not only working to rebuild but to also renew. The rhetoric provided by leaders involved in the 2008 coal ash spill was reassuring, empathetic, and served to build a positive vision of the future for stakeholders. The analysis of this supports past research in that the four pillars above are integral to renewal as well as observes the pillars at work in TVA's postcrisis response following the coal ash spill. The next objective in this study was to observe the extent in which TVA involved community members in the recovery process. The following research question addresses community involvement in the postcrisis response. Restated for consistency, the question asks:

RQ2: To what extent was the local community involved in the postcrisis response?

Community-based participatory research can be viewed as one way to strengthen relationships between dominant and marginalized groups while working to resolve issues together. Rather than following the traditional top-down approach, researchers/experts invite community involvement to assist in finding solutions from those who know the problem best—the individual members directly affected. In similar fashion, TVA reached out to the Roane County and Kingston residents to find solutions to problems created by the 2008 coal ash spill. This portion of the study seeks to understand the extent in which the community had a meaningful role in the recovery and rebuilding of their town.

To best address this second research question, the author focused on the data acquired through interviews with members of the community who held leadership positions. Specifically, these participants were members of the Roane County Advisory Group—a self-governed group who served as the voice of the community at that time. The researcher would like to note that, in addition to the interview responses, any documents pertaining to the collaboration efforts were identified on the Kingston Recovery website and included in the following analysis in order to represent a crystalized understanding of the case. This resulted in the transcripts of eleven public meetings, two issues of the "Letter to Our Neighbors", the TVA Recovery Fact sheet to ascertain important dates and events.

Make no mistake, that while the information gleaned from the website and TVA officials is useful, the researcher acknowledges the need for reflexivity. Specifically, the researcher took into consideration who constructed the record and for which audience was it constructed. Yin reminds us that "most archival records were produced for a

specific purpose and a specific audience, and these conditions must be fully appreciated in interpreting the usefulness and accuracy of the records" (p. 89, 2003). The data collected from interviews with community members provided an additional perspective, representative of the Roane County Community Advisory Group.

Each interview was conducted via telephone and lasted between 30 and 45 minutes. The notes from the interview were then typed, resulting in 6 pages of data. A thematic analysis was performed on the transcripts and the researcher observed three themes in interview data: voice, representation in decision making, and accessibility. This section discusses and describes each of those themes and provides data in the form of quotes pulled from each interview that exemplify that theme. Discussing each theme individually, rather than each interview individually, demonstrates the prevalence of these three themes in each interview and the similarities in the thoughts expressed by each interviewee as they related to these themes.

Based on the literature in chapter two, the researcher categorized "community involvement" as instances in which community residents perceived themselves to have an active role during the recovery process. In the spirit of participatory research, the author paid special attention to instances when Roane County residents felt empowered. Following a thematic reading of the interviews, the following themes were observed by the researcher—opportunity to be heard, representation in decision-making, and finally, accessibility to TVA.

The Opportunity to Be Heard. There were several early attempts in which TVA assured the Kingston and Roane County residents that their voices would not only be heard but

included in the recovery process. The first time we see this is in a direct address to the community on the *Kingston Recovery* website.

Community Newsletters

In one of two newsletters, titled "A Report to Our Roane County Neighbors", Steve McCracken, general manager of the Kingston Recovery Coal Ash Project addressed local community members directly:

A lesson learned is the importance of listening. Communication is a two-way process. We continue to partner with federal and state authorities to listen to our Roane County neighbors, whether through comments and conversations at our formal public meetings, through community leaders, through Roane County Community Advisory Group that's been organized to provide another channel for your questions and inquiries about the Kingston site. (I encourage you to learn more about this group of citizens at www.roanecag.org). And underlying these formal listening channels, TVA also engages in direct citizen inquires and conversations every single day. The input we collect comes in the forms of questions, ideas, and suggestions, with our neighbors sometimes helping us identify potential problems we may not have recognized or anticipated. Listening will remain a priority. (A Report to Our Neighbors, 2009, p. 1)

This newsletter was distributed in two installments in 2009 and then discontinued for reasons unknown. The newsletter and the archival log for area residents are the most publicized attempts at collaborating with Roane County community

residents. In discussing involvement with two leading members of the community, it became apparent that other collaborative responses were proposed implemented by the residents. One such way was through the Roane County Community Advisory Group.

Roane County Community Advisory Group

The Roane County Community Advisory Group (CAG) officially formed on July 23, 2009. The CAG was created as "a public forum for community members to present and discuss their needs and concerns to EPA, EVA, TDEC, and other stakeholders about the coal ash clean-up process" (EPA, p. 13, 2009). The CAG had a presence and voice at every public meeting from the inaugural meeting and until 2015. As TVA neared the completion of the Kingston Recovery Project, the CAG's involvement lessened and became inactive. As of February 2015, the CAG website (www.roanecag.org) has been taken over by an online casino portal.

Newly appointed TVA CEO, Bill Johnson, added that this monumental project could not have been achieved without the hard work and dedication of the Kingston recovery workforce, the regulatory guidance of the Environmental Protection Agency and the Tennessee Department of Environment and Conservation, and the support and input from the Roane County elected officials, the Community Action Group, and the public. (PR Newswire, 2014)

Following the period of open communication, TVA continued to respond to community needs by updating the mission statements of groups set forth to assist them in

the recovery process. Specifically, the Roane County Community Action Group (CAG) updated their mission statement in 2013. The updated mission statement reads:

The mission of the Roane County CAG is to support and facilitate public awareness of meaningful participation in the TVA clean-up of the Fossil Fuel Plant coal ash spill that occurred in December 2009. The Roane County CAG seeks to support the restoration of our community and environment by:

- Staying abreast community concerns about the clean-up in all aspects
- Communicating those concerns to TVA, the EPA, and other federal, state, and local officials
- Assisting TVA and EPA with communicating appropriate information to the community
- Assisting TVA and EPA with conveying technical information concerning the clean-up to the community in terms that are readily understandable to lay persons
- Assisting TVA and the EPA in providing long-term forum for addressing community concerns as they arise throughout the clean-up process

The document states, CAG members are expected to participate in CAG meetings, provide input and information to decision makers on site issues, and share information with their fellow community members. They must be prepared to fairly and honestly represent not only their personal views but also those of the community members they represent. (Revised Community Involvement Plan, p. 11, 2013)

Community member A expanded upon this, noting that finally having a voice reduced a lot of the initial anger with TVA. Namely, the community was more trusting of

information they received following the creation of the CAG. He recalls having residents come up to him at the grocery store and thank her for "working for the people of Kingston".

Community member B's sentiments supported this notion, stating that the community viewed the CAG as an advocate for the "little guys". He remembered the distrust being so bad that unless the information came from CAG the residents were skeptical.

When asked what the organization could have done better, both CAG members agreed that TVA should have fact-checked information before they communicated it publicly. TVA's eventual back-peddling made it much more difficult for them to get the residents on board which is why the CAG was necessary, according to community member B. The community had the means to question TVA about what they were being told—it was no longer a one-way street, according to community member A.

The commitment to represent the community and meet their needs was viewed as a step in the right direction. The above language shows a clear concern for accurate community representation in decision making, clear and accessible communication, autonomy for members to implement change.

Representation in Decision-Making. While it is true that much of the decision-making was decided by TVA officials, they did make efforts to ask for feedback and input from the community before they finalized plans. Community members recognized this and saw themselves as having representation in by providing feedback in two main ways.

The first was the Engineering Evaluation and Cost Analysis plan. The *Kingston Recovery* website described that they point of the Engineering Evaluation and Cost Analysis (EE/CA) was to provide information to the public regarding the removal of fly ash in order to restore the embayment and close the Dredge Cell and adjacent ash pond. This step was crucial and necessary for the recovery process. TVA provided alternative plans and explanations to public. Following the release, the public had approximately 120 days to evaluate and comment on the proposed plans set forth by TVA.

Engineering Evaluation and Cost Analysis Plan

The EE/CA plan was released for public comments in January of 2010. The plan offered 3 alternatives for the excavation of the embayment and removal of remaining coal. First, Alternative 1 proposed excavating the embayment with off-site disposal. Next, Alternative 2 proposed excavating the embayment and utilizing a combination of on-site and off-site disposal. Finally, Alternative 3 proposed an excavating the embayment with on-site disposal. Each of these alternatives weighed the pros and cons for the reader and TVA solicited comments and concerns from the public before following through with a decision. TVA made clear in the proposal document that that they would "incorporate community comments in documents as warranted" as a clear demonstration of their power over the situation (EE/CA, *Kingston Recovery*).

When asked one way the organization was successful in the recovery process, both interviewees mentioned this plan by name. Community member A remembered taking these options to the community and discussing in full. He noted that there was technical jargon, which he thought was necessary, but that it showed an effort by TVA to convey the major message in a way the community could all understand.

Another way in which the community was able to provide input was through a public survey. In 2009, TVA released a Community Involvement Program which can be found on the TVA Kingston Recovery website. TVA's mission is stated clearly, "The goal of TVA's community involvement program is to provide open communication among citizens. TVA, EPA and other agencies, and provide opportunities for meaningful and active involvement in the cleanup process." (p. 18)

Table 4.1, Breakdown of TVA Interviews

Interviewee	Number
Residents	21
Civic Leaders	17
Government	13
Environmental	6
Total	57

According the official TVA Community Involvement Plan, TVA conducted more than 50 personal interviews during May and June of 2009.

Nearby residents, activists, civic leaders, and elected officials comprised the survey population. Of the 57 participants, only 21 participants were representative of the community residents (see Table 4.1 above). TVA reports that majority of these interviews were conducted in person with some elected officials interviewed by phone.

TVA strategized both the construction and the facilitation of these interviews with community residents. TVA created their questions based on the EPA Superfund Community Involvement toolkit and trained interviewees to be both facilitators and listeners. TVA found that the interview responses contained resident concerns with the recovery process as well as determined the types of information residents needed during this recovery. As a result, TVA combined all communication with the public from 2008 on with the survey responses and created the Community Involvement Plan for the Ash Recovery Project (CIP, 2009).

Several themes emerged during the analysis of the community surveys and TVA addressed these themes, more specifically, these concerns, on the Kingston Recovery website. The concerns ranged from short-term to long-term health worries, property value, air and water quality, and the quality of communication efforts by TVA. The results of the surveys were made public and allowed the community to see a concrete example of how their feedback was being used to implement change in the future recovery phases.

Under direction of the CAG, TVA allowed for additional critical feedback regarding the survey method and results. Following the initial release of the Community Involvement Plan, TVA opened up a 60-day public comment period where residents and community members could address concerns or ask TVA for clarification of the report. The follow information highlights the major concerns and provides TVA' response to the public. TVA reported that it received comments from a total of 36 individuals regarding the proposed Community

Involvement Plan. Comment could be mailed or e-mailed to TVA officials (EPA, 2010). The community showed concerns that TVA's public interviews, of roughly 50 people, were not an accurate depiction of the public's needs. One member noted:

"Fifty interviews is equivalent to 0.4 percent of the combined populations of Kingston and Roane County (using the population counts provided in the Plan). Fifty is a small sample size and unlikely to represent the full range of community concerns".

Additionally, they reported that it was unclear how the information was used to draft the Community Involvement Plan as the information was not analyzed scientifically with "percentages or other scientifically analyzed data".

In response, TVA confirmed that the survey was structured and conducted based on advice from the EPA in their Superfund Toolkit. TVA stated that "with EPA's advice and approval, we identified a cross-section of the community, including residents, elected officials, leaders of community-based organizations, church groups, environmental organizations, and local business leaders, including many who had be publicly critical of TVA and the cleanup process (CIP Responsiveness Summary, p. 2, 2009). TVA maintained that while the EPA recommends a minimum of 25 interviews, TVA invited more than 80 individuals to be interviewed for the Community Involvement Plan. In the end, only 57 individuals accepted the offer.

During an interview with one community member, the CIP and the CIP Response were described as effective strategies used by TVA. These responses allowed for the community to "have a say" in the decision-making. Community member A supported CAG because they felt it was representative of that group specifically, given their participation in the survey. When asked how the organization could have done better, the participant responded with uncertainty, noting that the community differed a great deal in terms of how receptive they were to be part of a TVA sponsored-survey.

Accessibility to TVA. When talking with TVA officials, the researcher learned that TVA understood the need to reach out to the community in order to regain trust and ultimately better relations between the two parties. The interviews with community members mirrored that sentiment by describing ways the community benefited once their accessibility to the organization was made a priority. The following section describes the ways in which TVA made themselves accessible to the public.

TVA Outreach Team

TVA organized five community outreach teams made up of plant employees and retirees to reach out to homeowners affected by the spill. Each team visited 10-15 homeowners per day to answer questions and listen to concerns (Ash Release, 2009). This team continued to visit nearby homeowners for two weeks after the spill (Personal communication, Katie Kline, 2012).

TVA outreach teams also opened informational booths at locations in downtown Kingston, TN as well as staffed the site with one full-time employee to answer public questions and concerns. Additionally, a telephone hotline was made

available to homeowners with property damage in need of assistance. A second hotline was made available for non-property concerns.

Town Meetings

TVA made efforts to provide personal and intimate forms of communication to area residents in addition to their website. Over the course of 5 years, TVA sought out a variety of face-to-face engagements with the community.

TVA held public meetings once, sometimes twice, a year. These public meetings are promoted on the website with the following statement, "An informational public meeting is periodically hosted by TVA, the Tennessee Department of Environment and Conservation, and the Environmental Protection Agency in Kingston." (*Kingston Recovery*, 2013) The earliest documented meeting was held approximately six months after the crisis event on June 23, 2009. The last documented meeting was held on May 30, 2013.

As stated, the meetings were intended to be informative in nature, but they also served as a venue for the public to ask questions as seen in this passage from the June 23, 2009 meeting transcript:

Residents have asked both TVA and EPA for the opportunity to ask us questions in a public forum. That's why we're here tonight and we look forward to hearing from you. For the next hour, we will take your questions. We'll either answer them here or we'll follow up with you to provide an answer. (Kingston Public Meeting, p.3, 2009).

As planned, the public asked questions. The questions were attacking and ridden with mistrust, as seen below:

I know the debris is in my cove. I've seen it. I've seen TVA out there cleaning it up, shoveling truckloads of crap out of my cove and they tell me I'm unaffected. I've been sick from it, I see it, I have helicopters flying over my house, I've got dead fish my dogs are dragging up, but TVA says I'm not affected. I've never been so affected by anything in my life. How are you going to make me whole again? (Kingston Public Meeting, p. 5, 2009)

While the communication climate was tense, TVA did what they set out to do. The transcripts of these town meetings show that TVA responded to this question and many others. In doing so, they provided an opportunity to put a "face to a name" and attempt to get answers.

In an interview with one community member, community member B recalled feelings of neglect early on, recalling that one of the largest complaints was the lack of access to TVA.

People had their houses covered with this muck and no one would tell us anything. Days went by before we even heard from anyone at the plant let alone get answers we'd been wanting. Once the mess was starting to clear, TVA scheduled town meetings and people showed up. They were angry; but they showed up.

CAG member A pointed to the development of the Communication Action Group as one way that direct access was gained to TVA.

Until that group was created, people's only options were calling a 1-800 number or showing up to an overcrowded and rowdy town meeting. Even though they were speaking with us (the CAG) they saw a lot more progress taking place when we were in their ear.

RQ3: In what ways did community engagement impact the renewal process?

Former TVA CEO, Thomas Kilgore, made a promise to the community that TVA would recover and rebuild the area to a better status than it was before the spill. Since the start of the recovery phase, TVA worked to remove coal ash and restore the community. More than that, TVA also worked in partnership with the Roane County CAG to reenvision the future of their town. Through the creation of the Roane County Economic Development Foundation and with \$43 million in funds from TVA, the Roane County community was given the opportunity to create a better place in which to live and work. The following section describes tangible examples of how that collaboration functioned as an extension of the renewal process.

Roane County Economic Development Foundation. TVA established a \$43 million foundation for economic development in the years following the spill. The foundation prioritized community needs and wants and in order to boost the Roane County economy and in turn, the community. Of the \$43, \$32 million was allocated for projects at nine schools. (Kington Recovery, 2015).

The Roane County Economic Foundation was likened to that of a non-profit working to improve the county. The foundation consisted of four TVA officials in addition to four elected leaders from local partnerships in Roane County, Kingston, Harriman, and Rockwood. Those elected leaders are Roane County Executive Mike Farmer, Kingston Mayor Troy Beets, Harriman Mayor Chris Mason, and Rockwood Mayor Jim Watts. TVA representatives included Senior Vice President for Economic Development, Vice President for Valley Relations, and Kingston Fossil Fuel Manager.

In an interview with Kingston Mayor, Troy Beets in August of 2013, Beets elaborated on the ways that Roane County was able to utilize the funds from the Roane County Economic Foundation. Specifically, Beets was asked his opinion on whether the community recovered or recovered and improved—a key principle of renewal. Below is his response:

I can speak for everybody. I was on the school board for 15 years. I was county commissioner for 8 years, and now I'm the major. Each and every one of us has prospered from that \$43 million. The city of Kingston will have a brand-new sewer plant that it was worth \$5 million dollars to us had we had to borrow the money and pay that back, we'd have been in debt for the next 35 or 40 years and had to raise rates to cover approximately \$8 million for the sewer. So, that in itself is an enhancement to the city of Kingston. The Roane County system, who runs the school system, is \$32 million to the good. Had they had to borrow that money and stretched it out over the next 150 years, which county governments have the tendency to do, we'd have probably had paid back

\$75 million. We opened up a new school the other day. The \$43 million has been a tremendous enhancement and betterment to the Rockwood, Harriman, Kingston, and Roane counties, and Olive Springs. Yeah, without a doubt. (Personal communication, 2013).

Beets listed his past community roles and situates himself as a qualified authority to speak on the ways that Roane County used the funds to improve the community rather than just recover.

While some in the community understood the funds to be a PR stunt employed to improve TVA's image, a CAG member explains, "that of the \$43 million given for the Roane County Economic Foundation, TVA allocated a little over \$1 million for organizational image repair". (Personal communication, 2015). Furthermore, in the eyes of the CAG, the decision on how and where to allocate funds supported the claim that TVA wanted to better the community based on their needs versus the opinion of the contributing organization.

The *Kingston Recovery* website cited specific ways in which Roane County school districts utilized their \$32 million—the bulk of the Roane County Economic Foundation's funds. Among the projects completed, the brand new Dyllis Springs Elementary was built for \$13.5 million. The elementary school now includes geothermal heating and cooling, high efficiency windows, and solar panels in which the school benefits by selling electricity back TVA. Additionally, existing schools were expanded and upgraded, and two schools were closed. One particular highlight is that for the first time in years, no portable classrooms are used in the public-school system (Fowler,

2012). The focus on the school systems led to another idea—an educational initiative within the schools.

Educational Initiative

Finding opportunity in crisis was brought to fruition when TVA and the community recognized an opportunity in which others, namely Roane County and Kingston students, could learn from the coal ash spill and the recovery process. Thus, the *Kingston Ash Recovery Educational Initiative* was created. The Kingston website describes the initiative's objective, "By sharing the facts as well as knowledge and skills, TVA is providing students information that may be useful to students should they pursue careers in the science and/or engineering fields" (Educational Initiative, 2015).

Documents on the website further explain that the *Kingston Ash Recovery Educational Initiative* provided the science and ongoing monitoring behind the process, as well as the provided students with skills necessary in recovering from such an event. The application of the initiative came in the form of material presented to students in three installments over several days. The Kingston Recovery website describes the three sessions below:

Session 1: This session provided expert opinion on how and why the 2008 spill occurred. TVA outlines the actions they took in response the spill during the initial aftermath. Emergency response as well as engineering response were highlighted to help students better understand the roles that each organization played directly following the spill.

Session 2: The following session focused the logistics and planning it took to remove more than three million cubic yards of fly ash from the Emory River. In

this session, the students participated in hands-on lessons about air and water quality at the project site.

Session 3: The third and final session focused on the testing and monitoring of wildlife, animals, and entire ecological food chain. Students were taught about the different scientific disciplines that one must consider when interacting with living creatures. (Kingston Recovery, 2015)

Following the three installments, students were given a quiz and the floor was opened for further discussion and inquiry.

It is unclear how many students were impacted by TVA's Educational Initiative as no clear record was kept, yet the planning and facilitation of such an event shows commitment to expanding the scientific exposure that Roane County students receive.

TVA addressed this notion on their TVA Recovery Fact Sheet available on the website.

TVA hopes the Educational Initiative helps this future generation better understand the event that occurred in Roane County, and encourages students to consider engineering and science career fields that are playing a major role in restoring their home territory to its original beauty.

(Education Initiative, 2015)

The educational initiative matched the community's request to invest in the future of their students. According to CAG member A, the hands-on workshops introduced students to possible fields of study and ultimately career paths they might not have thought of prior to this initiative.

Community Spaces

Following the allocation of the educational initiative funds, the Roane County Economic Development Foundation put the remaining funds towards repairing and creating areas for the community to utilize and enjoy. Lakeshore Park and the Roane County Multi-Use Sports Complex represent two new additions to the county.

The image below depicts a map of what is now Lakeshore Park.

Lakeshore Park is located along an embankment that was once completely covered in coal ash. Now the park serves as a green space for community members to use recreationally. As detailed on the TVA Kingston Fly Ash Release Site Fact Sheet (2013), the park covers 32 acres of ground and includes 4 fishing piers, two canoe launches, one boat dock and ramp, a walking trail, and restroom facilities at each end. In total, the funds were used to restore over 5 miles of shoreline and reforest nearly 7,000 trees. Prior to the spill, the area was unused but years following the spill, the space is now a local attraction, according to one CAG member (Personal communication, 2015).

The second creation of green space was the Roane County Multi-use Sports Complex, which spanned over 60 acres. The sports complex is now home to several sports fields, concession stands, and is able to host regional tournaments. CAG member A noted that in addition to looking for ways to improve the economic state of Roane County, the community also wanted to create ways to "boost the county's battered image" in the wake of the spill:

We reached an agreement with the Roane County Economic Foundation to try to make this area as a host for sports tournaments. The goal being to bring outsiders into the county and show them who we are not, not who we were.

(Personal communication, 2015).

The data above describes several postcrisis initiatives made possible with the funds from TVA and with the discretion of Roane County community members. The Roane County Economic Foundation had the autonomy and ability to allocate TVA's millions toward two specific areas—education and recreational spaces. By investing the largest portion of the money in education, the community was quite literally looking to the future and engaging in renewal's tenet of prospective vision. The foundation used the remaining funds to develop recreational spaces for the community to gather and enjoy. These initiatives improved Roane County by finding the opportunity in aftermath of disaster.

Chapter Five: Conclusions and Implications

The previous chapters revealed that over time, the Tennessee Valley Authority increasingly improved the effectiveness of their postcrisis communication. Though off to a slow start, TVA communicated in ways that were compliant with the tenets of organizational renewal. Additionally, this study revealed that TVA worked *with* the local community to foster renewal, which resulted in expanding organizational renewal's current framework. This fifth and final chapter serves not only to summarize key findings, but also to address theory, methodological, and industry implications. In addition, this chapter will conclude with the current study's limitations and directions for future research.

Renewal as Accepting Accountability and Proving Assurance

The first research questions asked, "In what ways did TVA attempt to renew following the coal ash spill?" The answer to this question was influenced consistently by TVA's recognition that the company could have and, as many outside sources decided, should have prevented the crisis from happening. In recognizing and responding to this failure, TVA emphasized its accountability for the crisis and detailed strategies for assuring the community that similar failures will be avoided in the future. This section details how these strategies of accountability and assurance manifested in element of the renewal process and explains how accounting for unquestionable responsibility can extend our understanding of the discourse of renewal.

Organizational learning, as expressed by TVA, was dominated by a recognition of the organization's failures. Beginning with Kilgore's testimony, TVA pledged to share information and lessons learned from the event with those in leadership and utility roles.

In addition to these official updates, TVA took an additional step and shared what they learned with the public and the people of Kingston on their regularly updated TVA Recovery website. While the website provided a public display of organizational learning, TVA overlooked an important portion of their audience—the Kingston residents, many of whom did not have internet access. To make up for this oversight, TVA set up regular town meetings held throughout the town of Kingston.

While it was clear that TVA intended to learn from their mistakes, TVA also needed take accountability and fault for their actions. First, Kilgore stated in his 2009 testimony that TVA was in fact responsible for the failures that led to the coal ash spill and promised to make the additional changes needed to ensure this would not happen again. Blame was not shifted to other parties and no fingers were pointed elsewhere. This acknowledgement is crucial for organizational learning and crucial for engaging in the renewal process.

More specifically, TVA ordered an internal investigation and publicly shared six failures that led to the coal ash spill. The investigation found that lack of clarity, lack of standardization, poor communication, lack of checks and balances, lack of prevention priority, and reactive response rather than proactive response all contributed to the spill. From there, TVA conducted additional investigations to ensure that another spill would not happen. The company tested new dike walls, made certain that all 24 coal ash ponds met industry standards, and verbally committed to converting wet ash to dry ash which would help to store the byproduct more safely.

Even after Kilgore stepped down from his role, Johnson, the following CEO and president, continued previous efforts reminding stakeholders that TVA was still learning

and fulfilling their commitment to right their wrongs. Johnson provided concrete examples of their commitment, such as TVA and EPA working together to redesign how coal fly ash is collected and stored. The change in leadership itself was a visible effort on behalf of TVA to the continued learning and commitment to the community and stakeholders.

For TVA to engage in ethical communication, the company had to admit unequivocally that the crisis could have and should have been avoided. This acceptance of accountability created an ethical imperative of openness. TVA's failure to prevent the crisis was reported as an ethical violation by several local newspapers. *The Chattanooga Times Free Press* and *Knoxville New Sentinel* were very clear that TVA incorrectly stored coal fly ash citing previous leaks in years prior to the spill. Furthermore, outside organizations called for criminal probes into TVA's failure to prevent the 2008 spill. Both the media and local community agreed that TVA could have prevented this humanmade disaster. Over time, it became clear that TVA's responsibility went well beyond the cleanup and recovery process—it was now their responsibility to regain the trust of their surrounding community.

In keeping with ethical communication, TVA admitted the inadequacies of its crisis planning. Specifically, TVA admitted that they had no real crisis plan in place for this type of event—the Vice President of Communication stated openly that the possibility of a collapsed retention pond was not viewed as a threat and therefore there were no protocols in place for the employees and the community. While shameful for TVA, this level of openness to the public is a core value paramount to the renewal process (Sellnow & Seeger, 2013).

From the date of the spill, Kilgore and TVA initiated near constant communication with the community. This was done through access to media, interviews, and the TVA Recovery Website. Within the first year of the event, over forty PDF documents and reports were available for public viewing. Included in these documents were transcripts of every town hall meeting, no matter how scathing the remarks. These examples showed that even though TVA failed to prevent the ash spill in the first place, the organization now prioritized delivering honest and open communication to the public at large—even if the information was damaging to TVA's reputation,

Over time, it became clear that TVA's primary concern was "the safety of the public". Concern for safety is an ethical stance central to renewal (Ulmer, Sellnow, & Seeger, 2011). From finding temporary homes for displaced families to providing a 1-800 number available 24/7, TVA attempted to create safe arrangements for the community and was available to answer questions through all hours of the day and night. Over time, the efforts TVA made to protect the community post-spill were viewed as earnest and sincere by members of the community. Day by day, TVA continued to gain back a little more of the public's trust.

To maintain that trust, TVA emphasized openness in its communication. In instances of controversy such as the rumored prior leaks, Kilgore provided access to October 2008 reports as soon as they were made available to him. While this information was still doubted by some members of the public, TVA addressed this by providing answers and maintaining a level of openness. No questions were off limits and Kilgore intended for it to stay that way, maintaining responsibility for the crisis and subsequent situations following the crisis.

Because of the company's singular responsibility for the crisis, TVA had to fully acknowledge its egregious failures before putting forth a prospective vision. In fact, when TVA did establish a prospective vision, much of the emphasis was on correcting past failures. This is unique in the sense that most organizational crisis literature case studies reflect that organizations should more forward and not look back. However, the crisis had tarnished TVA's reputation and in return, community members doubted their goodwill and retracted their trust. What followed was TVA's open and honest communication in the form of deliverables, websites, town meetings, and media briefings that aided in the public's perception of the organization and their intentions.

Another way TVA established this prospective vision was through TVA's community newsletter that emphasized "looking ahead" and highlighted "milestones" were of central focus. The Letter to Our Neighbors outlined plans for future recovery efforts and included visual representations for landscape reconstruction. Additionally, the Letters to Our Neighbors focused on future plans and future collaborations with the community to move beyond the crisis and toward a better future for both the residents and members of TVA. Future plans included projects intended to advance the economic stability of the town as well as the welfare of its surrounding community.

Additionally, future progress quickly became a consistent message where TVA provided the community with assurance that the cleanup would be completed in several phases and by the self-imposed deadline. TVA provided assurance that a "safe environment" would be the result of their efforts. Specifically, Kilgore's testimony was the first public form of communication that outlined plans to clear and clean water, restore roadways, and mend community relations. The transition of power, namely

Kilgore passing the torch to Johnson, for TVA president aided in the notion that this organization was making changes with the future in mind.

Furthermore, the prospective vision emphasized "notable changes" by TVA. TVA's organizational rhetoric focused on establishing a collaborative link between the company and the community. TVA emphasized a rhetoric of both cleaning up (accountability), and recovery (assuring the community residents that the outcome would be pleasing to them). As noted in the interviews with TVA personnel, the goal was to create a better community for the residents. One that would foster collaboration and progress. In keeping with that goal, TVA committed itself to "look for opportunities, in concert with the leaders and people of Roane County, to make the areas better than it was before the spill".

TVA engaged in environmental monitoring to "reassure the public". As Kilgore stated in his testimony, multiple outside agencies and certified labs were tasked with providing objective results regarding the physical environment and safety of the water. The rhetoric provided by organizational leaders following the coal ash spill was reassuring, empathetic, and served to build a positive vision of reality for the public and stakeholders. These very tenants are necessary for an organization to engage in the renewal process.

Few previous studies of organizational renewal feature organizations who are entirely responsible for the devastation of a community. Much of the previous research has focused on organizations whose challenges were thrust on them by natural disasters, terrorists, unpredictable fires, or an industry-wide failure to recognize an impending risk. Renewal in a case where the organization is clearly responsible for a failure that resulted

in catastrophic damage creates the need for a dominant and consistent message of accountability and assurance that the profound failures can and will be avoided in the future. In instances where the organization bears less of the burden of responsibility for the crisis, prevention may be emphasized primarily in the learning phase of renewal. With such dramatic failures as that faced by TVA, however, accountability and assurance are central to all four aspects of renewal. Responsibility for the disaster, then, has a primary influence on an organization's options for engaging in the renewal process.

Community Involvement as Building Autonomy

The second research question asks, "To what extent did TVA involve the affected community in the recovery process?". Much of the previous literature surrounding community involvement and participatory-based research focuses on experts actively engaging community members in the research process. This case study demonstrates a somewhat different perspective—one that depicts community involvement through enabling autonomy.

Early on, many of the local complaints faulted TVA for neglecting its neighbors and the community in which is resided. TVA implemented organizational learning and created venues for face-to-face interaction, gave the community

First, the newsletter issued by TVA to the community served to set the tone for the early phases of recovery. Given the tense nature of their relationship, the organization acknowledged their mistakes and demonstrated organizational learning to the affected community. TVA emphasized their intention to "listen to our Roane County neighbors" and partner with them as they work collaboratively to recover from the spill. Looking ahead, TVA promised "learning would remain a priority".

In response to TVA opening their ears to the community, residents organized and formed the Roane County Community Advisory Group in July 2009, approximately 7 months after the spill. The CAG played an active role in presenting TVA the concerns and requests of the community. CAG members also assisted TVA in communicating to the community through filtering out jargon and constructing audience-appropriate deliverables. In some regards, the CAG functioned as gatekeepers. In others, they functioned as an extension of the community.

CAG members referenced the public town meetings several times throughout the interviews as another venue for which the public could be heard. Overall, TVA held eleven public town meetings. CAG members were required to be at each meeting and all other members of the local community were invited to participate. The town meetings provided a space for all residents to be heard—not just CAG members.

For some community residents, the forum gave them a place to vent their overall frustrations. We see this occur in several of the transcripts. For others, the forum was a place to ask specific questions or state individualized concerns not always represented through the CAG channel. In all instances, TVA listened, responded, and returned each time to face the people they had wronged.

In addition to giving community members a voice, TVA further enabled autonomy through including the community in aspects of the decision-making. It is important to note that much of the cleanup was government-regulated and therefore decided by the Environmental Protection Agency. However, where there was room for input, TVA reached out to the community for feedback and survey responses.

The Engineering Evaluation and Cost Analysis Plan (EE/CA) provided tree separate alternatives for excavation and on-site disposal of remaining coal ash as well as pros and cons for each alternative. The community weighed in and contributed to the conversation. The author recognizes the attempt made by TVA to give the community representation yet acknowledges the power the organization had to include or discard that feedback.

The TVA case differs from the literature due to the very nature of the crisis event—one involving water contamination of great proportion as a result of improper organization. As a result, many aspects of the coal ash removal and recovery phase were determined by the Environmental Protection Agency and other government entities. Even still, CAG members amicably discussed the opportunity provided by TVA to review plans and submit feedback.

TVA also took measures to conduct over 50 personal interviews within six months of the spill. A total of 57 interviews with residents, civic leaders, government officials, and environmental activists were collected. The results from this survey were posted publicly on the Kingston Recovery website where major themes or concerns were addressed. In response to that, CAG members expressed dissatisfaction and directed TVA to open a comment and critique period similar that of the EE/A. For the first time throughout the recovery process, Roane County and the CAG influenced TVA to change their initial course of action. Though it may be small in comparison to the other decisions, TVA adapted their plan and tipped power scales ever so slightly in favor of the community.

Lastly, the author observed TVA to enable autonomy through making themselves accessible to the community. Previous studies have shown organizational leaders and elites to remain at a distance from the public. Most statements are delivered via media or press releases. However, the nature of this crisis encouraged TVA find ways to lessen that perception of distance and they started by doing so quite literally by making house visits.

Within 48 hours, TVA had created a TVA Outreach Team, comprised of employees, officials, and even retirees. This team walked door-to-door to check on the status of that household and to answer questions and concerns. Following those house visits, the Roane County Community Advisory group formed as did the public town meetings. Phone lines were dedicated specifically to ash spill in addition to informational kiosks at the local shopping mall. Between all of these resources, including the vault of readily available information on the Kingston Recovery website, TVA provided access by means of all channels available to them.

Through understanding the ways in which TVA made themselves accessible to the public, future at-fault organizations can become cognizant of unconventional approaches for community involvement. The rural nature of Roane County along with the spills impact on electrical wires forced TVA to be creative in the ways they made themselves accessible to the affected community.

Renewal as Collaboration

The third and final research question asks, "In what ways did community involvement impact the renewal process?". At the onset of the spill, then TVA CEO, Thomas Kilgore, made a pledge to Roane County residents to not only recover from the ash spill, but to restore and improve the surrounding area. Kilgore's rhetoric served as the starting point in the 7-year journey to renewal. In reflecting on the renewal tenets observed in research question one, the community's involvement is a common thread. But in what ways did that involvement impact the renewal process? While this study in no way set out to measure the community's impact in a quantifiable manner, this study did hope to illuminate the ways in which the community's efforts lends itself to renewal in the TVA case. Specifically, TVA and the Roane County Community Advisory Group's collaboration opened lines of communication between the two parties and fostered an amicable working relationship. One that allowed for a prospective vision of the Roane County area.

The purpose of this study was to understand and explore TVA's postcrisis communication following the 2008 coal ash crisis event and observe the extent in which the community played a role in the recovery process. This study extends our understanding of the discourse of renewal by applying the renewal framework to a crisis case study in which an at-fault organization's actions resulted in detriment to the surrounding local community. Additionally, this study sought to answer three research questions. First, to what extent were the tenets of renewal apparent in TVA's postcrisis response? Second, to what extent was the neighboring community involved in the recovery phase? Finally, in what ways did community involvement impact the renewal

process? By analyzing the data collected through interviews, media reports, archival records, this study was able to answer the research questions and expand the literature in a unique and meaningful way.

This research fits within other scholarly research in the areas of communication, particularly crisis communication. Organizations who undergo crises are presented with several challenges—addressing the needs of stakeholders, repairing image and reputation of organization, addressing financial troubles, and returning the organization to status quo, or in the case of organizational renewal, improving beyond the status quo of the precrisis organization. Alone, these challenges can be difficult for an organization to overcome, but together they prove to be an organizational nightmare and often a venue for public scrutiny.

Despite TVA's attempts to effectively communicate to the public following the spill, the interview data with TVA officials revealed that they judged their early communication to be ineffective and often times inaccurate. To no surprise, media reports and community member interviews appeared to support those findings. Through interviews with TVA officials, it became apparent that more often than not, TVA's positive efforts and progress were not covered by media outlets. For example, TVA made small efforts of renewal when existing employees and retirees walked door-to-door and hand-cleaned and relocated each community member's mailbox from across the street to the same side of the street as their house. One of the reasons why this information never made it news outlets is because TVA was so focused on "doing right" by the community members that they overlooked the need to report their good doings to those outside of Roane County.

Additionally, this study's findings lend to crisis communication research in regard to the widely discussed, short window of response time. While the literature argues that a quick-response is needed after a crisis event, the response should also be void of any concrete numbers and figures. TVA served as a textbook example of how inaccurate information can backfire during the postcrisis phase when they miscalculated the size of the spill. Not only did this make TVA look incompetent, but this act of miscommunication was remembered by media outlets and the surrounding community for years to come. As often stated in this line of research, communication is irreversible.

Limitations

Several limitations exist in the research above and many of those focus on access to community members. While the TVA *Kingston Recovery* website supplied the researcher with ample transcripts from community meetings, access to tangible community members sans a mediated channel was difficult to obtain. Two residents and members of the Community Advisory Group (CAG) were willing to contribute their experiences and thoughts on their organization and its role in the initial cleanup and recovery following the 2008 coal ash spill. A larger sample of community members may have provided more information for analysis; however, many community members were unavailable due to relocation and lack of contact information.

Another limitation to the research was the time in which the study began and concluded. As discussed in chapter one, the researcher began conducting the TVA case study four years after the crisis event took place. At that time, TVA had already started to remove archival records, visual imagery, and meeting updates from the *Kingston**Recovery* website. While the researcher did document and download the available data as

the start of the study, there is the possibility that other valuable material had been removed. In the same fashion, the window of time that had passed before the researcher began the study also included several changes to TVA management and employees. While many of the major key players were actively involved in the interviews, the organizational climate as well as the surrounding community were several years removed from the crisis event.

Future Research

At the conclusion of this study, the researcher sees two potential areas for future research. First, organizational renewal can and should be applied to additional case studies where community engagement plays a role in the postcrisis communication phase. While the TVA case was one with a clear at-fault organization, other cases, such school shootings or natural disasters are routes to be analyzed. Second, community engagement can take shape in many forms. The CAG members were an official group with access to TVA elites and non-public meetings. There were several other unofficial community groups working to repair and renew the surrounding neighborhood that could have provided insight into the renewal process. While this case may not have easy access to those groups given the passage of time, other crisis events should explore the unofficial groups to better understand their impact on renewal.

APPENDIX

Appendix A: Interview Questions

You are being invited to take part in a research study about organizational learning and change. You are being invited to take part in this research based on your role as an organizational spokesperson of an organization that has recently experienced a crisis directly or within your industry and implemented or proposed some type of policy or procedural change demonstrating organizational learning. You will be asked a number of questions about the incident experienced by your organization and how that incident was handled.

- 1. What lessons did you learn from the incident?
- 2. How did the response to the incident change the organization?
- 3. How did you seek to communicate those changes to the public?
- 4. What communication channels did you employ?
- 5. What were the successful messages, what messages would you have changed?
- 6. What recommendations do you have for other organizations facing similar incidents?
- 7. May we contact you again for follow up questions?

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VITA

Nicole Catherine Staricek

Educational Institutions Attended:

Auburn University, MA, 2011

Juniata College, BA, 2009

Professional Positions Held:

Instructor of Communication, Eastern Kentucky University, 2018-present

Graduate Teaching Assistant, University of Kentucky, 2011-2018

Graduate Teaching Assistant, Auburn University, 2009-2011

Scholastic and Professional Honors:

Top Paper Award, International Public Relations Research Conference, 2017

Top Student Paper Award, Southern States Communication Association, 2015

Graduate Teaching Award, Auburn University, 2011

Professional Publications:

Veil, S. R. Anthony, K., Staricek, N., Young, L., Sellnow, T. L., & Cupp, P. Revisiting the best practices in risk and crisis communication: A multi-case analysis. 20th Annual Public Relations Research Conference.

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