CRISIS MANAGEMENT PLANNING: A CASE STUDY OF MAN-MADE AND NATURAL CRISIS EVENTS IN HIGHER EDUCATION

A Dissertation

by

LONNIE J. BOOKER, JR.

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

December 2011

Major Subject: Educational Administration

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ABSTRACT

Crisis Management Planning: A Case Study of Man-Made
and Natural Crisis Events in Higher Education. (December 2011)
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Due to crisis events that have shocked several college and university campuses, many of these institutions have begun to look for ways to respond effectively to those events. However, higher education is generally not equipped or prepared to respond to crisis events. Thus, crisis management research in higher education should be explored. Principles of organizational learning and organizational development from corporate management America were used in this qualitative study to explain how leaders in higher education institutions prepare for crises and learn from their crisis experiences. Chaos theory provided the theoretical lens for the study. Purposeful sampling was utilized to select two institutions and purposely identified administrators at those sites. Interviews gleaned the lived experiences of the participants. Data analysis revealed five themes: conflicting definitions, institutional response to crisis, continuous learning, institutional issues related to a crisis, and leadership roles during a crises. The findings support the importance of developing a crisis management plan, disseminating the plan to all stakeholders, and application of continuous learning principles to evaluate the plan and actual crises responses before, during, and after a crisis event.

DEDICATION

To my family and friends who have supported, encouraged, loved and prayed for me

ACKNOWLEDGMENTS

This dissertation is the result of the contributions of many individuals. I would like to acknowledge my professors, all of whom were true educators and leaders. They made the experience truly special and valuable. I would also like to thank each of my "Power-House Dream-Team" dissertation committee members for their time, insightful comments, and valuable suggestions.

I would also like to give my gratitude to my parents who provided there support, love and care packages. To my mother you can now have your dining room table back. There are no more index cards on the table. I love you Mom. Also a great thanks to my father who would call and give words of encouragement, and that fatherly advice that got me through the program.

To my son Trey, who was a constant vision and motivation to complete school, daddy loves you.

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INTRODUCTION

Institutions of higher education have long been regarded as safe sanctuaries and marketplaces of ideas. However, frequently there are incidents that can cause disruptions on a college campus (LaMarche, 1990). Nonetheless, there is a perception held by organizations such as colleges and universities that crisis happens only to other institutions and that the impact of a crisis will be small because they will be protected from crisis due to their size (Mitroff, 2001). Such a perception may be harmful if it is a shared value throughout the higher education organizational culture (Mitroff, Diamond, & Alpaslan, 2006; Nicklin, 2000).

Colleges and universities face many of the same crises as other organizations. For instance, colleges and universities have residence halls, sporting facilities, and a large number of young adults, faculty, and staff whom the institution is legally and morally responsible to protect. Thus, crisis planning is used to address a crisis event to protect students, faculty and staff, the related community, and the institution (Zdziarski, Rollo, & Dunkel, 2007). This duty adds a dimension to crisis planning that separates higher education from business and civic organizations. Crisis planning is believed to reduce mortality and property damage in the event of such an occurrence. With appropriate advance planning and preparation, institutions can limit substantially both the duration of and the damage caused by major crises (Mitroff, 2001). Currently, there

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This dissertation follows the style of *The Review of Higher Education.*

is limited literature related to crisis management and crisis management planning in higher education.

Problem Statement

Crisis management plans to prevent or minimize catastrophic events that could have negative effects on the institution have important policy implications for higher education (Coombs, 2007). In recent years, higher education has been shocked by violence on college campuses, including graphic campus assaults (Lewis, 2007). Several campuses, such as Virginia Polytechnic Institute and State University (Virginia Tech) and Northern Illinois University, have dealt with tragedies related to student-initiated shootings or man-made disasters. Much of higher education treats crisis events as a rare occurrence or as an anomaly; however, several universities and colleges have begun to evaluate disaster and crisis plans for their respective campuses after recent disasters.

The literature that focuses on crisis management comes mainly from corporate America (Coombs, 2007; Mitroff et al., 2006; Seeger, Ulmer, Novak, & Sellnow, 2005;). Very little research has been reported on the effects of crisis management in higher education (Coombs, 2007; Mitroff et al., 2006). Many higher education institutions' crisis management plans have been written after a crisis event, suggesting that these institutions were utilizing a reactive approach to crisis events. In fact, this has become the norm for crisis management in higher education (Mitroff et al., 2006).

This reactive posture is creating environments that are unequipped or ill equipped to handle either man-made or natural disasters that threaten safety levels on college

campuses. Institutions of higher education must take the initiative to develop crisis management plans that outline individual and unit precautionary steps to maintain a safe environment. Currently, due to lack of understanding and knowledge of crisis management planning, institutions of higher education are clearly underprepared to create well-structured crisis management policies and procedures. Research focused on institutions of higher education and how they learn after a crisis event can help such institutions to create and practice crisis plans.

Purpose of the Study

The intent of this study was to explore the developmental process that institutions of higher education undergo subsequent to a crisis event on campus and the impact of these processes on the creation of crisis management plans. Through utilization of interviewing methodology and data collection, this study determined how colleges and universities learn and develop plans after a crisis event on the campus.

Research Question

In recent years, higher education has been shocked by violence on several college campuses that have resulted in graphic campus assaults (Lewis, 2007). Several campuses, such as Virginia Tech and Northern Illinois University, have dealt with tragedies related to student-initiated shootings or man-made disasters. Institutions such as Tulane University and Texas A&M University-Galveston have experienced natural disasters associated with weather. Many higher education institutions have treated crisis events as rare occurrences or as an anomaly. In light of several recent incidents, several

universities and colleges have begun to evaluate disaster and crisis plans for their respective campuses.

Due to the fact that there is limited research on crisis management in higher education, many institutions of higher education have written their crisis management plans after a crisis event occurred, which suggests that these institutions are simply utilizing a reactive approach to the events; this is the norm for crisis management. This reactive posture is creating environments that are unequipped to handle either man-made or natural disasters that threaten safety on college campuses. Institutions of higher education must take the initiative to develop crisis management plans that outline individual precautionary steps to maintain a safe environment. Currently, due to the lack of understanding and knowledge of crisis management planning, institutions of higher education are underprepared to create well-structured crisis management policies and procedures (Coombs, 2007; Mitroff et al., 2006).

A study conducted by the U.S. Government Accountability Office (GAO, 2007) indicated that 32 states had laws or policies requiring school districts to have emergency management plans. According to the GAO, most school districts, including those with or without emergency management plans, have embarked on a variety of recommendations and have put into practice procedures aimed at preparing for emergencies; some include conducting school drills and exercises. Of the school districts surveyed, 95% had written emergency management plans. The survey also showed that school districts struggle to balance priorities related to the education of students, other administrative responsibilities, activities for emergency management, and

a lack of equipment, training for staff, and personnel with expertise in the area of emergency planning. However, 39% of districts that had emergency management plans reported a lack of partnerships, limited time or funding to plan, and lack of use of particular equipment designed to be used by school districts and first responders.

There are many differences between higher education and elementary/secondary (K-12) campuses. One such difference is the manner in which they respond to crisis events. There are no federal mandates or guidelines to stipulate that K-12 schools have a crisis management plan (Kennedy, 2007; Lee, Parker, Ward, Styron, & Shelley, 2008). Still, it is important to note commonalities among primary, secondary, and postsecondary educational institutions regarding crisis management.

A review of the literature on crisis management in higher education led to development of five questions:

1. In what way does higher education define and address crisis events on campuses?
2. How have institutions of higher education learned from a crisis event (i.e., man made or natural)?
3. How does learning affect the development of crisis management plans?
4. How do institutions implement their plans, once they are developed?
5. How do institutions evaluate their crisis management plans?

Organization of the Dissertation

Chapter I introduces the purpose of the study, which was to explore how institutions of higher learning can develop and grow after a man-made or natural crisis

event. Due to the limited literature related to college and university crisis management planning, much of the information was taken from corporate America and applied to higher education. In Chapter II, a literature review of crisis management is presented, beginning with federal, state, and local governments' approaches to crisis management planning. This is followed by a discussion of how crisis is defined in corporate America and higher education, the various forms of crisis events (man made and natural), and information on the phases of crisis management: organizational learning (OL) and organizational development (OD).

Chapter III describes the design of this study, stating the methodology used for data collection and data analysis. In Chapter IV the results obtained from the data analysis are presented and discussed. Chapter V includes a summary of the study and presents conclusions drawn from the findings and recommendations for future research.

Definition of Terms

Campus crisis: An event, often sudden or unexpected, that disrupts the normal operations of the institution or its educational mission and threatens the well-being of personnel, property, financial resources, and/or reputation of the institution (Zdziarski, 2006).

Crisis: An unstable period or state of affairs in which a unexpected event or series of events takes place and creates a high level of uncertainty (Fink, 1986; Seeger et al., 2005).

Disaster: A catastrophic event that significantly impairs or halts university operations and has an effect on the surrounding area. This event may entail widespread

distress, property damage, and casualties, for example, an explosion, hurricane, or shooting. The event is beyond the capabilities of campus responders and requires the response of multiple outside agencies (Haddow, Bullock, & Coppola, 2008; Lindell, Prater, & Perry, 2007).

Emergency: An event that disrupts or impairs university operations and has an effect on a particular area or building. An example of an emergency would be a gas leak, a burst water line, or a fire in a residence hall. The emergency may require response from multiple outside agencies (Haddow et al., 2008; Lindell et al., 2007).

First responder: Member of law enforcement, paramedic, or fire and rescue force who is the first to appear on the scene of an emergency (Haddow et al., 2008).

Man-made crisis: An event caused or facilitated by a person or persons that causes disruption of an institution's daily operations (Zdziarski, 2006).

Mitigation: Efforts to prevent or minimize the effects of man-made or natural disasters on the community (Kemp, 2007).

Mutual aid agreement: A formal assistance agreement between organizations and jurisdictions that spells out their roles and responsibilities during a crisis event (Chertoff, 2007; Haddow et al., 2008; Lindell et al., 2007).

Natural crisis: Large-scale natural occurrences such as earthquakes, tornadoes, hurricanes, and floods. Technological crises are sometimes included in the category of natural crisis (Zdziarski, 2006).

Preparedness: The state of being ready to respond appropriately to a crisis or disaster event, including proper planning, resource allocation, and training (Kemp, 2007).

Recovery: Time period after a crisis event that could involve the cleanup of debris, rebuilding the infrastructure, or providing assistance (Kemp, 2007).

Response: Action taken by an organization to a crisis event, ranging from issuing warnings to deploying short- or long-term resources (Kemp, 2007).

Stakeholder: A person or group that is affected by or can affect decisions and actions of an organization (Byrson, 2004; Coombs, 2007).

CHAPTER II

LITERATURE REVIEW

The complexity of the American higher education system, as it relates to crisis management, adds to the difficulties of establishing effective crisis management plans. Crisis events on college campuses, such as deaths and injuries, often disrupt the core values of teaching, research, and service in higher education (Rollo & Zdziarski, 2007). Although many of these incidents have become relatively common on college campuses, higher education has been sluggish to respond to effective crisis management and planning. Many institutions of higher education are merely utilizing a reactive approach to such incidents on campuses; this has become the norm for crisis management (Mitroff et al., 2006).

I investigated the extant research literature to locate information on crisis management as it relates to colleges and universities. In a preliminary review I identified relevant words and phrases to be used for an in-depth search. Preliminary search terms were *crisis in higher education* and *crisis in colleges and universities*. This search produced articles about Virginia Tech and the aftermath of the campus shooting incident. Additional queries yielded other crisis events of this nature (e.g., shootings, main computer crash, flooding), revealing a range of crisis events that occur on campuses.

Mitroff et al. (2006) indicated that crisis managers should be prepared for a wide variety of crises. The literature review revealed two major types of crisis: man made and natural. This led to a search for crisis management plans in the literature that

encompassed both of these types. Several plans were located but there was no explanation of how these institutions had arrived at their current plans. This led to the question, how did having a crisis plan affect the institution before and after a crisis event? Lalonde (2007) suggested another way of viewing crisis management in higher education.

The intent of this literature review is to examine the learning process of colleges and universities after a crisis event and how these institutions developed from a crisis management perspective after a crisis event. The review provides an overview of the development of crisis and emergency management from the federal government perspective. This perspective provides a framework of how and why crisis management planning is evolving and affects corporations as well as institutions. Literature was examined in the areas of crisis management, higher education, organizational change, OL, and OD. Four questions emerged from the literature review: (a) What is a crisis? (b) How has the crisis event affected corporations and other organizations? (c) How can institutions of higher education learn from a crisis? and (d) How does the learning affect the development of the institution and higher education?

Government Crisis Management

The federal government has traditionally viewed emergency management as a government function. The government develops and creates laws that gives the Federal Emergency Management Agency (FEMA), the Department of Homeland Security (DHS), and the Centers for Disease Control and Prevention (CDC), the authority to act in a crisis or disaster event (Copenhaver, 2005). In responses to any national or local

crisis or emergency event, FEMA has been on the front lines. Managed by DHS, FEMA is responsible for national emergency management and responses. With the assistance of state and local representatives, FEMA provides advice, equipment, and services after a disaster or crisis event. Not only does FEMA face the never-ending threat of a terrorist attacks; they must be prepared for various forms of natural disasters.

FEMA changed significantly after the terror attacks on September 11, 2001 and Hurricane Katrina. Immediately after these two major emergencies and crisis events, the framework of the agency was in total disarray (Roberts, 2006). Since those events, emergency/crisis management has evolved along with FEMA.

FEMA was established in 1979, under President Carter. The newly minted agency's responsibility included but was not limited to emergency preparedness, civil defense, disaster relief, emergency communication, and continuity of government (Rubin, 2007). At that time the agency had three components: federal insurance administration, U.S. fire administration, and the emergency broadcast system. During its early phases FEMA took on the role of assisting state and local emergency agencies. During this process they included volunteer organization and began to work on the phases of an emergency: mitigation, preparedness, response, and recovery.

It was not until the Clinton administration that FEMA evolved from the Cold War era approach of civil defense (Rubin, 2007). During this time numerous disastrous events called on the skills and resources of FEMA. However, after September 11, 2001 the agency's roles and responsibilities grew and the challenge was to prepare local and state agencies to form an all-hazard response. Therefore, in 2003, under President

George W. Bush, DHS was placed in charge of FEMA (Haddow et al., 2008; Rubin, 2007). As a result, FEMA took on additional responsibilities for improving intergovernmental relationships for responding to crises.

The main purpose of FEMA is to respond to emergency events, provide federal assistance, and help agencies and communities with mitigation, preparedness, response, and recovery (Haddow et al., 2008; Rubin, 2007). Even though FEMA's responsibility is to respond to emergency and crisis events on a national level, there was little focus of mitigation of a crisis or emergency event, even though mitigation is a strategy for the disaster preparedness plan. The National Incident Management System (NIMS) and Homeland Security Presidential Directives 7 and 8 make no mention of mitigation of a possible threat or the actual event (Roberts, 2006). After September 11, 2001, mitigation was included in the plan.

The Disaster Mitigation Act of 2000 (DMA) was made law by amending the Robert T. Stafford Relief and Emergency Assistance Act. The DMA set requirements for all jurisdictions to have a mitigation plan (Carr, T. L., 2007). Most of the planning related to mitigation and prevention occurs at the same time. Prevention is the process that jurisdictions take to reduce the likelihood of an emergency/crisis event, mitigation includes steps to eliminate or reduce loss of life and property as a result of an emergency event. Both prevention and mitigation practices play a key role in the development of policies that evaluate the reduction of risk for potential emergency events (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2008).

FEMA was charged with ensuring that jurisdictions had mitigation plans. In support, Congress authorized the Pre-Disaster Mitigation (PDM) program to provide funds for mitigation planning and the implementation of the plans before emergency events occurred. The intent of the PDM was to promote awareness of vulnerabilities of various jurisdictions (Carr, J. L., 2007). Uncertainty gives mitigation new life when it comes to responding to emergency events (Roberts, 2009). This ideology should be addressed when evaluating the vulnerabilities of jurisdictions, including colleges and universities.

In case of a major emergency event, the National Response Framework (NRF) is the established set of guidelines that agencies and jurisdictions use in responding to a terrorist attack, disaster, catastrophe, or other emergency/crisis event. The NRF can be applied to all emergencies that require a governmental response. In essence, the NRF is a crisis management plan for government agencies and nongovernmental organizations (NGO; U.S. DHS, 2008b). While crisis management planning in organization (businesses, companies) follows the federal government plan, there is a disconnection between the federal government's requirements to have a crisis management plan for colleges and universities.

Due to this lack of guidance, institutions of higher education are left to develop their own crisis plans. However, when institutions utilize the NRF, states and local jurisdictions can collaborate or work with other jurisdictions. It is during the planning, response, and recovery of a crisis event or disaster when higher education would utilize the collaboration or partnership process. Corporate America has begun to shadow the

NRF as their guide to addressing prevention, mitigation, and response to a crisis event within their organizations. It would be important for colleges and universities to develop a crisis management plan that mirrors the NRF.

After the shooting at Virginia Tech, many universities and colleges began to evaluate disaster and crisis plans for their respective campuses. FEMA determined that natural and man-made disasters can come in many forms and at any time (FEMA, 2003a). There are many ongoing crisis preparedness activities, but there is minimal coordination of these efforts related to college and university campuses. On the one hand, the CDC, the U.S. Department of Education, and FEMA are being trained in course work on how to handle the many hazards. These training courses are designed to promote collaboration among health agencies, education and other first responders (Trump, 2004). On the other hand, missing from these courses are crisis plans for schools, which are often thought of as separate and not integrated into the overall crisis plan.

Corporate Crisis Management

Understanding of crisis management requires definition of *crisis* and *crisis management*. The term *crisis* is a derivative of the Greek word *krisis*, meaning decision (Paraskevas, 2006, p. 893). The term *krisis* was used to describe a political conflict in the earliest Greek writings. Today, the term has various meanings depending on the setting and discipline. Lerner, Volpe, and Lindell (2003) formally defined crisis as "a traumatic event that seriously disrupts our coping and problem-solving abilities. It is typically unpredicted, volatile in nature, and may even threaten our survival" (p. 11).

Hermann (1963) indicated that the reason for the lack of a common definition of crisis is that various areas or disciplines utilize the word in different ways. The notion of crisis has been progressively used, over time, in fields such as economics, political science, philosophy, psychology, history, and public health (Boin, 2004; Pearson & Clair, 1998).

The formal study of crisis, as it relates to management and organizations, was first conducted by Charles Hermann in 1963. It was not until the late 1980s that literature began to develop additional information on crisis management (Mitroff et al., 2006). Prior to September 11, 2001, the majority of the crisis management research was geared toward private or corporate sectors (Coombs, 2007; Mitroff et al., 2006). Research after this date, particularly following the Virginia Tech event in 2007 and after the natural disaster of Hurricane Katrina, focused on lessons learned following these events. In essence, crisis management research has relied heavily on a single method of study: the post-mortem case study (Kurzbard & Siomkos, 1992; Paraskevas, 2006; Wise, 2003).

Effective crisis management is no longer just a matter of management of a crisis. It involves entire organizations, stakeholders, and managers. Organizations that are prepared for a crisis have learned an important lesson: "Crisis management concerns the totality of their organization as well as their relation with their environment and is an expression of the organization's fundamental purpose or strategic vision" (Pauchant & Mitroff, 1992, p. 126).

Fink (1986) defined crisis as "an unstable time or state of affairs in which a decisive change is impeding-either one with the distinct possibility of a highly

undesirable outcome or one with the distinct possibility of a highly desirable and extremely positive outcome" (p. 15). Pauchant and Mitroff (1992) defined crisis as "a disruption that physically affects a system as a whole and threatens its basic assumptions, its subjective sense of self, and its existential core" (p. 12). Coombs (2007) defined crisis as "the perception of an unpredictable event that threatens important expectations of stakeholders and can seriously impact an organization's performance and generate negative outcomes" (pp. 2-3). Within corporate America, according to Runyan (2006) and Crandall, Parnell, and Spillan (2010), a crisis is an event that has a low probability of occurring but, should it occur, can have a major negative impact on the organization. In essence, these definitions share characteristics that define crisis; however, these definitions can also fit into any setting or situation. Specifically, each organization will determine how the term will be defined (Rollo & Zdziarski, 2007).

Crisis Defined in Higher Education

A crisis can be described as a specific, unexpected and non-routine, organizationally based event or series of events that creates high levels of uncertainty and threat or perceived threat to an organization's priority goals (Seeger et al., 2005). Lerner et al. (2003) defined crisis as "a traumatic event that seriously disrupts our coping and problem-solving abilities. It is typically unpredicted, volatile in nature and may even threaten our survival" (p. 11). During and after a crisis event, an institution' systems, policies, procedures, associations, norms, and beliefs that hold the institution together inevitably break down.

Zdziarski (2006) indicated that the past has revealed that crises can affect college campuses. The most common characteristic that appears in the literature is *disruption* (Pauchant & Mitroff, 1992; Seymour & Moore, 2000). Disruptions can come in many forms, ranging from power outage or water line break to severe weather or a violent act on campus. The disruption can affect a building or the entire college or university campus. Zdziarski (2006) defined *crisis* as it relates to a college campus: "A campus crisis is an event, often sudden or unexpected, that disrupts the normal operations of the institution or its educational mission and threatens the well-being of personnel, property, financial resources, and/or reputation of the institution" (p. 4).

Zdziarski (2006) designated three forms of crises that affect higher education: a crisis, a critical incident, and a disaster. A *crisis* on a college or university campus was defined an unforeseen disruption of the institution. It is in this event that everyone who is associated with the institutions is affected. An example of a crisis would be the fall of BonFire at Texas A&M University, 1999. Bonfires were a longstanding tradition at the university; however, 12 students were killed on the campus as a result of the stacks falling on them, and an undetermined number of students were injured mentally and physically in this catastrophic event. A *critical incident* affects only a certain area of the institution, for instance a dormitory or a department. An example of a critical incident would be a lone gunman in a particular building. A *disaster* interrupts and causes disruptions not only to the institution but to the surrounding community as well. An example of a disaster would be a tornado, hurricane, or earthquake.

Corporate Stakeholders

In a corporation or organization, several stakeholders are involved in the process of planning, responding, implementing, and recovery. When crisis events occur, those who would normally respond to the event are the local first responders, including police, fire, and medical personnel (Haddow et al., 2008). A *stakeholder* can be defined as a person or group that is affected by or can affect an organization (Byrson, 2004; Coombs, 2007). Relationships among key stakeholders must be forged and worked on for some time in advance of a crisis so they can work together during a crisis event (Mitroff & Anagnos, 2001). It is important to complete a process that helps the organization and stakeholders to work together in a crisis event.

A crisis management approach requires stakeholder analysis. A stakeholder's analysis is an evaluation of political and competitive forces (Pauchant & Mitroff, 1992). This is done to determine the particular niche for stakeholders. This is facilitated by first taking into account members of the general community and campus population. Second, the analysis evaluates the characteristics of the stakeholder (i.e., experience or background in finance, support, or transportation). Third, having several frames of thought to apply to a crisis could help to visualize possible causes of a particular crisis (Pauchant & Mitroff, 1992).

The primary purpose of response is to protect property, secure the impacted area, aid in evacuation, and conduct search and rescue (Crandall et al., 2010). Not every crisis will end with a desired outcome and, as a result, there will be apparent failures or weaknesses. Therefore, the lessons learned are critical at this point. According to

Seeger et al. (2005), failure during a crisis event is a part of the learning process. These researchers indicated that a crisis is advantageous in supporting particular learning outcomes.

Organizational Characteristics of Crisis

Crandall et al. (2010) took an extensive approach to crisis management and offered a strategic orientation. However, they indicated that much of the literature is geared toward corporate America. They identified a four-stage crisis management framework: landscape survey, strategic planning, crisis management, and OL. Landscape survey looks at the process that the management should assess. Strategic planning looks to the prevention of a crisis event and mitigation of its effects on the organization. Strategic planning also relates to crisis management focused on containment of a crisis event and speedy recovery of normal operations. OL refers to what the organization discovered after the crisis event. The development of a framework can be implemented by looking at an historical context of corporate crisis stemming from the Exxon Valdez accident and the radiation leak in Chernobyl.

Runyan (2006) suggested characteristics of a crisis that drive many business owners to make decisions after a crisis event. He listed four major characteristics that play a vital role in a corporation's decision making: low probability, ambiguity, high consequences, and decision making. Low probability is often considered to be a surprise. However, the full impact of a crisis may not be known until during and after a crisis event. Many businesses minimize warnings. Ambiguity points to a lack of assessment of damages and financial recovery, both of which are very important.

High consequences of many crisis events are measured by the organization and how the crisis affects it. In the case of a small business, a crisis event could affect the livelihood of works and owners because many businesses are the owners' and workers' sole source of income. The decision-making processes shared among business owners are critical as they relate to response and recovery after a crisis event. Decisions could range from stay or evacuate, remain closed or reopen, to how to finance a recovery effort (Runyan, 2006).

Spillan (2003) discussed how small corporations, including nonprofit organizations, prepare for a crisis event. He pointed out that only a limited number of studies specifically examine nonprofit organizations. He asked three questions for organizations to consider: Will a crisis occur? What type of crisis? and When will it happen? He indicated that if a possible crisis is identified, managers could plan for it. Recognition of a possible crisis can help managers and administrators to deal with it effectively, reduce tension, and improve the morale of employees. Identifying a crisis beforehand allows others in the business community to prepare for the crisis. He posited that the best way to identify possible crises is to see what is happening to others in the business community and other sectors. The source of the crisis, as well as a way to resolve it, may not be readily clear. Nonetheless, its resolution should be approached as swiftly as possible because "the crisis impact may not be initially obvious to all of the relevant stakeholders of the organization" (Crandall et al., 2010, p. 4). Therefore, there should be an understanding of the needs of government and private sector responses to emergency management.

Copenhaver (2005) indicated a difference in how government and the private sector view emergency management. The government's primary function in a crisis is to protect the public health and safety. Legislation enables the government to act in a crisis and to implement plans to deal with the event. In contrast, the private sector's sole responsibility is protection of their critical infrastructure. However, the government cannot protect citizens without assistance from the private sector; thus, the cooperation of the private sector is critical to the government's emergency management mission.

Another role for the private sector is to provide manpower to pass information to others. The government describes emergency management as a specific range of activities that require the development of plans for an event. The private sector describes emergency management as a process by which businesses plan to address events that can impact their workers and business.

New Strategies

Waugh and Streib (2006) indicated that collaboration is required in dealing with hazards and disasters through crisis management and emergency management in an organization. Due to lack of understanding of crisis management during and after Hurricane Katrina, organizations began to incorporate crisis management. Governmental organizations and NGOs have followed this pattern by making crisis management a major part of operations (Waugh & Streib, 2006). However, many communities and organizations do not recognize the need for crisis management and do not support the concept. At the root there has to be a leadership strategy change for new strategies to combat hazards to be effective. All NGOs must be self-sufficient due to the

time lapse before outside help arrives. Mutual aid agreements are critical because the organization or institution must rely on multiple agencies to resolve the crisis or emergency event. To have useful and effective collaborations and plans, organizations must learn from the past and institute OL practices.

Organizational Learning

OL is not unique to learning organizations; learning occurs in every organization (Easterby-Smith, 1997; Easterby-Smith, Crossan, & Nicolini, 2000). According to Levitt and March (1988), OL is learning that can have some form of influence that originates from history and can affect the current routines of the organization and guide its behavior. Levitt and March articulated that OL encompasses three characteristics: routine based, history dependent, and target oriented. These three characteristics of OL imply that organizations' learning involves their past history, their current routine, and their potential objectives for protection. Huber (1991) claimed that OL consists of four constructs: knowledge acquisition, information distribution, information interpretation, and organizational memory. When members of an organization are involved in the four constructs, their learning reaches the organizational level.

Knowledge acquisition is the course of action in which knowledge is obtained. This action is carried out in five ways: congenital learning, experiential learning, vicarious learning, grafting, and searching (Huber, 1991). Congenital learning is the combination of knowledge that is inherited from the organization's creator and the knowledge that was acquired before its beginning. Experiential learning occurs after the organization's inception and is acquired through experience. When organizations are

engaged in vicarious learning, they learn strategies and practices from other organizations. Through grafting, an organization obtains new members or other organizations that possess a certain knowledge or skill that is not available within the organization. In searching, the organization looks for information outside of the organization. Combining these five methods facilitates the process for organizations to obtain needed information and knowledge.

Informational distribution is critical because departments in an organization may develop new information that could help the entire organization. In essence, this information availability could lead to more OL. However, organizations must be able to interpret the received information. The interpretation depends on the organization's departments. Huber (1991) indicated that there should be a common interpretation from all departments. The cause of inaccurate and nonlearning situations could be lack of organizational memory (Starbuck & Milliken, 1988). Organizations must learn by continuously deploying these constructs over a period of time.

Moats, Chermack, and Dooley (2008) applied two concepts of scenario planning and scenario-based training (SBT) to the two crisis events of Hurricane Katrina and September 11, 2001. The research problem focused on the leaders of organizations and how they dealt with very complex situations. Primarily, the focus on volatile environments indicated the need to have effective strategies to avoid a crisis event and to manage the event as it was occurring. The research question was, What new and innovative strategies were used to eliminate or manage a crisis event? The themes that emerged were a lack of vision for plans and a lack of ability to solve the problem or

crisis. The lack of vision indicated that scenario planning for both crisis events went unimplemented, indicating that the possibility of an event occurring to that magnitude was inconceivable.

As for the lack of problem-solving skills in a crisis event in an event such as Hurricane Katrina, Moats et al. (2008) indicated that leadership in decision-making action had broken down. In essence, the leaders in New Orleans could not react and make a decision because they did not know when or how to make one. The study indicated that both scenario planning and SBT are good systems to incorporate to address shortages in the organization's crisis management plans. After the storm, the city learned from the crisis event and prepared for the next crisis event.

Moynihan (2009) indicated that much of crisis learning focuses on the *intercrisis*, defined as learning from one crisis to prepare for another. He posited that OL takes place at this time. Specifically, learning occurs when there is a gap between what the organization expected and the outcomes; these gaps are identified and corrected (Argyris & Schon, 1996). OL theory can explain how this process of learning is done. There are differences in how the organization utilizes OL theory to learn from past experiences.

There is a difference in the OL theory of single-loop and double-loop learning (Argyris & Schon, 1996). Moynihan (2009) explained that single-loop learning is learning that leads to improvement in the organization's responsibilities. Single-loop learning happens when a difference is detected and corrected without changing the underlying cause of the difference (Argyris, 2003), in this case improvement of the organization's crisis management plan. Double-loop learning is the result of a change in

the value in the theory and the strategies used to change them (Argyris & Schon, 1996). In the context of organizations, double-loop learning occurs when the organization tests and changes its assumptions and policies to strengthen the overarching goal of protection of the institution.

Lalonde (2007) indicated a disconnection between organizations and crisis management. As a result, there are limits as to how they approach or handle a crisis. One limit is the sociological aspect of an organization, which would merely address the crisis as a social event. From a crisis management perspective, the discipline looks at the strategies used to prevent, respond to, and recover from a crisis event. Lalonde indicated that, even though there was learning after a crisis event, there is still no clear understanding of the development of an organization. In essence, during a crisis event administration and stakeholders are gathering data and information about the crisis that could lead them to understand how and why the crisis occurred. This provides an opportunity to prevent the crisis from occurring again. Numerous crisis events, such as the World Trade Center (Tierney, 2003) and Hurricane Katrina (Moats et al., 2008), have been studied individually but these studies did not seem to shed light on crises holistically. Therefore, after the organization learns, there is a process developmental concept that an organization utilizes.

Organizational Development

According to Werner and DeSimone (2009), OD is a process used to enhance the effectiveness of an organization and the well-being of its members through planned interventions. For OD to be effective in the organization, there must be some form of

transformation or change. OD is geared for long-term learning and benefits for the organization. OD broadens the perspective of the organization by envisioning the entire organization as a learning organism and analyzing the performance and development of the organization (Wright, 2009). Therefore, OD is relevant to an organization's learning and how it handles crisis events.

OD has deep roots in psychology, so there was a move from the product to the people who work within the organization. This new focus included issues such as the environment in which the people work, how to encourage creative knowledge, and the subgroups in the organization working together to maintain a stable and functioning organization (Burke, 1994). Early OD efforts primarily focused on the individual employee's interactions within the organization or department and not the entire organization (Senge, 1990). As a result, smaller organizations began to look for help to solve their development issues and larger organizations sometimes created internal departments to address OD problems. As organizations started to focus on human issues, they also recognized the need to relate those issues to business functions (Bradford & Burke, 2005), recognizing that if there development includes the complete organization, there will be a smoother transition from learning to development. This shift was critical as it related to institutions of higher education and crisis management because not everyone knows or understands crisis management. However, due to crisis events that have affected colleges and universities, there has been a push for greater understanding of crisis management.

Even though organizations have begun to recognize the effects of crisis events on their organization, many are not prepared to manage a crisis. Wang (2008) connected crisis management, OL, and organizational change to strengthen the ability of organizations to address a crisis and the way it changes the organization. Wang posited that, because OL and crisis management are basically linked, learning is taking place before a crisis, during a crisis, and after a crisis. To be equipped to handle the many types of crisis, an organization should evaluate the OL process and look at what was learned. Moreover, there should be an understanding that continuous learning by the organization requires behavioral change.

Behavioral Change

Schein (1985) cited Lewin's three-step behavior change model of unfreezing, movement, and refreezing. Unfreezing requires changing of the behavior of the existing ideology. An example of unfreezing could be the thought that administrators and/or stakeholders believe that they would not experience a crisis event on their campus. The process of changing behavior involves three steps: (a) to motivate the organization to prepare for the change, (b) to build trust and recognize that the change is good for the organization, and (c) to build trust among decision makers and administrators who actively participate with the organization. In the unfreezing step, if an organization's beliefs do not change, the organization may fail (Robbins, 2003).

The second step, movement, requires the organization/institution to move to a new level of stability. Educational institutions are just as vulnerable to a crisis event as corporate America. Thus a crisis management plan should address all hazards as critical.

Lewin (1947) provided three steps to meet this process need. He indicated that administrators and decision makers should first persuade students, faculty, and staff that the plan is beneficial to them. Second, stakeholders, students, faculty, staff, and administration) should work toward a common goal, which would be the protection of everyone on and around the campus. Third, leaders must support the change by motivating participants and moving the bar to a higher level.

The third is refreezing. Lewin (1947) posited that this step should be done only after changes have been implemented, to ensure the changes will stay in place over a period of time. Refreezing should stabilize the new changes by reinforcing them through the new policies and procedures (Robbins, 2003).

Organizations may experience some anxieties that stem from the changes. Thus, these changes will require the organization to learn new procedures. As a result of these new procedures, the organization could suffer possible momentary ineffectiveness and confusion. In essence, this fear is a part of the learning process; Schein (1985) indicated that there is a resistance to change. Thus, the level of fear associated with the learning process must be lower than the level of confidence required for true change to occur. In the case of crisis management in higher education, there is no magical formula or plan that will address all crisis events. Some institutions could suffer hardships when implementing crisis management plans.

Education and Crisis Management

In higher education settings, a crisis can be said to be an unpredictable event that can critically impact a college or university's performance and generate negative

outcomes (Coombs, 2007). For a college or university, a crisis can have dramatic consequences for the institution and stakeholders (Coombs, 2007). Consequences of the crisis can range from financial loss, property damage, and tarnished reputation to injury or death of students, faculty, or staff. Several types of crises are possible both on and off college and university campuses. According to the literature, there are numerous definitions for crisis and that there is no common way to define the term (Auerbach & Kilmann, 1977; Coombs, 2007).

Evolution of Crisis Management in Education

Even though there has been relatively limited research about crisis management on college campuses, a majority of the literature on crisis management pertains to primary and secondary schools. Unfortunately, there is no policy that requires higher education institutions to have a crisis management plan for their campuses. It is just as unfortunate that administrators cannot implement a policy to stop traumatic events from occurring on their campuses.

Crises are increasingly a part of the lives of practitioners who are the first responders and most directly responsible for the initial response to crises (Lindell et al., 2007). Institutions are beginning to act in preparation for such situations to ensure the safety and recovery of the campus community by developing comprehensive crisis response plans. Detailed crisis response plans and protocols are being updated and revised to meet the needs of the entire campus, with attention given to various types of crises. A comprehensive crisis response plan ensures that the physical safety and emotional safety of the campus is the highest priority (Lindell et al., 2007).

A study campus safety at Texas public universities conducted by Keel (2008) indicated that 35% of Texas institutions of higher education had developed emergency management plans. However, state requirements are unclear as to whether institutions should also adopt the NIMS. For universities and colleges throughout the state, there is no specific point of authority. There is no standardization, coordination, or evaluation of emergency preparedness plans for the state's institutions of higher education. Approximately 35% of the institutions included in the study reported having a plan for possible hazards, but those plans differed among institutions. Most campuses were prepared for violence, weather, and health emergencies. Five recommendations came from the study: (a) create and regularly update plans, (b) schedule drills to test equipment and preparedness (c) enter into mutual aid agreements, (d) develop partnerships, and (e) adopt an emergency mass notification/communication system.

Mitroff et al. (2006) conducted a study surveying 350 colleges and universities in 2004. Of the institutions that responded to the survey, many indicated that they had prepared for the most common crisis event. The researchers identified of 14 common types of crisis that occurred on college and university campuses, with fires, lawsuits, and crimes heading the list. The more these institutions experienced a particular crisis, the more prepared they were for that event. The study concluded that colleges and universities crisis management plans should not only address past incidents but should plan for a wide range of possible future crisis events.

Mitroff et al. (2006) described crisis management in higher education as more than just an emergency preparedness plan. In essence, crisis management plans should

address a variety of crisis events. The main purpose of a crisis management plan is to uncover weaknesses in the current emergency system. Once these weaknesses are identified, there should be a key and collective effort to correct these weak areas. Colleges and universities should not view crisis management as a set of strategies for an anticipated event or the reaction to an unexpected event; rather, the plan should be adaptable to handle various crisis events.

Catullo, Walker, and Floyd (2009) studied the status of student affairs divisions at institutes that were members of NASPA (student affairs administrators in higher education) in 2001 through 2007. The main question of this study was how did colleges and universities progress in developing a comprehensive plan to address the four phases of crisis management. The study revealed that a significant number of the institutions had plans that addressed the most common forms of crisis events that institutions could experience. Furthermore, Catullo et al. concluded that the institutions were moving from a reactive approach and addressing the pre-crisis phase to mitigate the effects of a crisis event.

Types and Forms of Crisis Events on Campus

Several types of crises are possible on and off college and university campuses. According to Zdziarski (2006), there are three forms of crises events: crisis, critical incident, and disaster. Two types of crises that can occur at institutions of higher education: man-made or natural disasters (Lindell et al., 2007). Natural crises, also known as natural disasters, are large-scale occurrences ranging from earthquakes, tornadoes, and hurricanes to floods (Lerbinger, 1997; Lindell et al., 2007). Natural crisis

can be compared to a crisis that occurs regarding communication failures. The common principle of natural crises is that they deal with risk intrinsic to a particular situation or location whose dangers must be taken into account; both have a predictability of occurrences within a period of time. Examples of man-made disasters are kidnappings, shootings, violence, riots, and computer hacking.

Crisis management is frequently thought of as a single set of actions applied to an event. Many campuses focus solely on the response aspect of crisis instead of understanding the need for crisis management. To understand crisis management, administrators and decision makers must recognize the warning signs of a possible crisis, as well as the various phases of a crisis.

Fink (1986) used medical terms to label phases of a crisis: prodromal, acute, chronic, and resolution stages. Fink concluded that most organizations are already in crisis and are unaware of the phase that they are in. The prodromal stage or pre-crisis stage is the warning phase of a crisis event. In the acute stage most of the damage occurs; during this stage there is more damage control than crisis management. The chronic stage or post-mortem is the period in which reflection and learning takes place. Crisis resolution occurs when the organization recovers from the crisis event.

Pauchant and Mitroff (1992) proposed five phases of crisis management: signal detection, probing, containment, and learning. During the signal detection phase administrators or decision makers detect or observe warning signs of a possible crisis event. At that point they should begin to probe to determine weaknesses. Once a crisis has begun, there should be some form of containment of the crisis to keep the crisis from

growing or affecting other areas. The organizations should learn from the event through a review of the procedures used and assessment of what worked or did not work to prevent, mitigate, and recover from the crisis.

Coombs (2007) provided an integrated approach to crisis communication that included a mixture of disciplines. The author suggested a three-stage approach to crisis management: pre-crisis, crisis and post-crisis. The three-stage approach is appropriate at the macro level of an organization. Within each stage are several substages that should be incorporated. The three-stage model provides a unified system for organizing various types of crises and explains how crisis management can prevent or reduce threats by providing guidelines on how to act and react to a crisis event.

Zdziarski (2006), combining crisis management researchers' models and FEMA's stage model, suggested a five-phase management process: preventing and mitigation, planning, response, recovery, and lessons learned. Preventing a crisis begins long before a crisis occurs. Addressing the possible causes of a crisis and reducing the likelihood of a crisis can lessen the impact on the institution. The main functions of prevention and mitigation are long-term outcomes that reduce the risk of an event occurring. Therefore, there should be planning for every type of possible crisis that includes responsibilities of personnel, command structure, funding, and resources.

There continues to be debate over when response ends and recovery starts (Lindell et al., 2007). The recovery process starts just as the crisis is ending and continues until the organization returns to normal (Haddow et al., 2008). After a crisis event, a debriefing process is used to evaluate the total crisis event from preparedness to

response and recovery. During the debriefing, institutions use lessons learned and apply the new information to adjust their current crisis plan. In the debriefing process, institutions of higher education utilize information from the current crisis and proceed to adjust the current crisis management plan. Stakeholders on college and university campuses should take part in developing and implementing the crisis management plan.

Education Stakeholders

The desired outcome for colleges and universities is to be prepared for the next crisis. In managing a crisis event, it is vital for institutions to incorporate both internal and external stakeholders (Mitroff & Anagnos, 2001). Stakeholders in higher education include students, faculty and staff, administrators, and members of the surrounding community. Stakeholders can be individuals, groups, or organizations that affect the institution's ability to manage a crisis event (Jongbloed, Enders, & Salerno, 2008; Zdziarski, 2006). The term *stakeholders*, as related to higher education, is different from the use of the term in coporate America. This difference lies in the roles that are assigned as descision makers and external representatives.

The most apparent internal stakeholders in higher education are individual students. Colleges and universities are charged with student development and teaching students. Although some institutions reject the role of *in loco parentis,* most parents view this role as essential. Stakeholder groups can be fraternities and sororities, on-campus residents, and student clubs or organizations. Student leaders of clubs and organizations are often a part of response and recovery after a crisis. They can play a crucial role in reaching out to the student body because they have clear and open access

to students (Zdziarski, 2006). The faculty, staff, and campus administrators play key roles in decision making, policy development, and management of crisis events. They bring to the table a wide array of experience.

External stakeholders are also a major source of influence for the institution and the community. External stakeholders include local and federal government agencies, parents, media, and first responders (Seymour & Moore, 2000; Zdziarski, 2006). The reason for considering local and federal government as an external stakeholder is that the government represents many other communities of interest with which higher education interacts, such as research in health and science, industry, and business. Each of these interactions represents an interest group to which the institution is linked through research. This linkage has brought the institutions not only prestige but also financial backing (Jongbloed et al., 2008). Therefore, in crisis management planning, colleges and universities should take into account these groups that have a vested interest in the institution.

When there is a crisis on campus, one of the first to respond to the event is the media. The media can play a critical role in broadcasting information immediately and over a large area (Seymour & Moore, 2000). In the event of a crisis on campus, parents should be informed of the situation, and the media can serve as an information broadcaster. The information that is sent out through the media to local communities and the nation is critical to stakeholders. Not only are the institutions involved in the event being scrutinized; other organizations that have a working relationship with the institution are also under fire and should be provided accurate and prompt information.

Thus, the institution should work in close cooperation with the media to protect stakeholders by providing accurate and timely information.

The last stakeholder is the first responder. First responders are those people who are first to respond to a crisis event and begin by protecting people by isolating or contain the event and evacuating and treating the injured (Chertoff, 2007; Crandall et al., 2010; Kemp, 2007). It is imperative that higher education campus administrators understand how first responders will be responding to a crisis on campus and how the institution can coordinate efforts with them (Zdziarski, 2006).

Campus Student Affairs

College and university student affairs departments are complex cultures that are designed for development of students' educational experience (Kuh, 2003). Within this organizational culture are programs and services that address students' and the institution's needs (Kuk & Banning, 2009). Protection of the safety of students and faculty and staff has been a great undertaking (Thelin, 2004). As a result of increased concerns about crises, there has been a push to understand the culture of higher education and student affairs. Understanding the culture of the institution and the student affairs department allows administration to craft and shape a productive and successful organization (Kuk & Banning, 2009). This learning demonstrates the resilience of the organizational culture, particularly the crisis management plan. It is important that there be a relationship between the organization's planning and response to the crisis (Somers, 2009).

Somers (2009) challenged the current belief that a step-by-step planning process is required in crisis planning. He articulated that the development of plans through internal processes that are geared toward a specific organization is the preferred method. The organizational structure's resilience is embedded within the organization to demonstrate positive adaptive behaviors under stress. Somers presented the following definition: "Resilience is the ability of systems, infrastructure, government, business and citizenry to resists, absorb, and recover from or adapt to an adverse occurrence that may cause harm, destruction, or loss of significance" (as cited in U.S. DHS, 2008a, pp. 23-24).

According to Kahan, Allen, and George (2009), resilience can be either soft and hard, making it difficult to analyze the concept from an organizational perspective. Hard resilience addresses an institution's infrastructure, referring to organizational structure and capabilities on a day-to-day basis and including the organization's response during and after a crisis event. Soft resilience refers to family, community, and society, with all of whom institutions of higher education must maintain trust from all through a junction between resilience and crisis management policies. In the case of higher education and student affairs, institutions function because of the faculty, staff, and students, as well as the organizational culture structure.

Most cultures have characteristics of an organized system with varying degrees of formal structure (Strange, 2003). Due to this variation within the organization, higher education (student affairs) fits the notion of a complex organization. The reason for this complexity is that many student affairs practitioners or professionals come from and

have a variety of knowledge and expertise from other disciplines (Dungy, 2003). Strange (2003) indicated that this mixture of expertise and disciplines causes the environment to be either dynamic or static. He explained that a dynamic environment is flexible and tolerates change, whereas the static environment resists change. In crisis management in institutions, student affairs staff cannot be static; they must be flexible and adaptable when a crisis event occurs. A student affairs division on any college or university campus has a direct connection to the student body though enrollment management, student activities, and student services.

Traditionally, student affairs divisions have been standalone units. Each unit had its own organizational structure and was narrowly focused on that area. However, over time the need to address all student needs came to be the overarching focus (Dungy, 2003). The new approaches included responsibilities for housing or residence life, student activities, student support services, and campus safety. As a result of these additions, there was a shift in the approach to effectiveness of student affairs departments on college and university campuses. Student affairs organizational culture should be able to change with the environment (Kuk & Banning, 2009). As indicated, the notion of campus safety was not originally a part of student affairs duties. However, the safety of the institution's stakeholders, primarily students, is critical to the institution (Zdziarski, 2006). It is this adaptability of which student affairs division should be aware in crisis management planning.

Crisis Management Plans

An effective higher education crisis management plan should include plans for various divisions that are tied to the institution's overall crisis management plan. The plan should address the course of action and identify who can activate the plan, followed by specific action steps (Zdziarski, 2006). Smits and Ally (2003) indicated that organizations are complex systems that vary in size, resources, and technology. These variables would make it impossible to create a *one size fits all* plan for all institutions. In case of a major emergency event, the NRF is the established set of guidelines that can be used to respond to a terrorist attack, disaster, catastrophe, or emergency/crisis event. The NRF can be applied to all emergencies that require governmental response. In essence, the NRF is a crisis management plan for government organizations and NGO (U.S. DHS, 2008b). Currently, the NRF contains five chapters: (I) roles and responsibilities, (II) response actions, (III) response organization, (IV) planning, and (V) additional resources.

Chapter I explains who is involved in crisis management and the response process from the federal, state, and local levels as well in the private sector (business, colleges, and universities) and NGOs. It is important to remember that the response to a crisis event starts at the local level on the campus. If the event is larger than campus responders can handle, local officials and responders are called for help. The crisis management plan for institutions of higher learning should include a mutual aid agreement written and agreed on ahead of time to lessen delays in obtaining appropriate help and response from the community.

Chapter II is divided into three phases for effective response: prepare, respond, and recover. The first phase, prepare, includes six sections: plan, organize, train, equip, exercise, evaluate, and improve. According to U.S. DHS (2008b), the preparedness cycle should follow their process as illustrated in Figure 1.

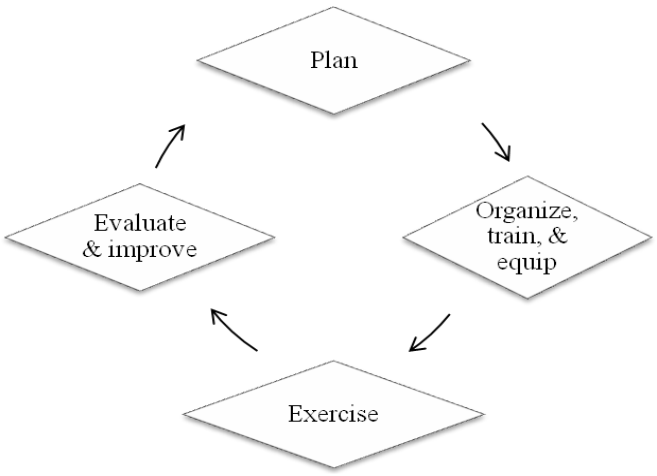

Figure 1. The preparedness cycle. From *National Response Framework,* by U.S. Department of Homeland Security, 2008b (p. 27), retrieved from http://www.fema.gov/pdf/emergency/nrf/nrf-core.pdf

Planning for a crisis event makes it possible to handle the crisis life span. It also provides a view into the institution's capabilities and resources, as well as the roles of key administrators and decision makers during a crisis event. To execute a plan, leaders must be organized and must understand the overall organizational structure, which can foster and develop leadership skills and bring together a well-qualified and trained team. The team should be organized according to capabilities and resources. Equipping for a crisis event goes hand-in-hand with planning and execution. Identifying organizational resources to address certain events is critical. The plan should l identify strategies to obtain and deploy resources and equipment as needed. To identify weaknesses in the plan, the institution should conduct regular training and exercises. After each training session, there should be evaluation to assess what worked and what did not work. This critical step is often overlooked or omitted (Mitroff, 2001, 2004).

The second phase, respond, contains four categories: gain and maintain situational awareness, activate and deploy key resources and capabilities, effective coordinated response action, and demobilization. To obtain situational awareness, the institution should continuously monitor sources of information about possible incidents (Fink, 1986; Wooten & James, 2008). The institution's plan should address how responders and key decision makers are activated. Knowing whom to contact and when to contact them is critical in an emergency. The more time is spent ahead of a crisis event, the less time is spent in gathering information on what is needed and who should be contacted when a crisis occurs. This process mitigates possible damages to property and loss of life. An effective response is a coordinated response and effort by all

responders based on their assigned roles and responsibilities. However, this response does not occur only during a crisis event. Communication and training that addresses the capabilities and responsibilities must occur before an event. Demobilization is the process in which all assets, resources, and personnel are removed or deactivated in a safe and efficient manner. There should be checks and balances to assure that all equipment and personnel are accounted for. There should be staging areas where equipment providers report to account for their equipment and a separate area for personnel from medical, law enforcement, and utilities agencies to report prior to leaving. The recovery effort can take place over two time periods: short term and long term. Short-term recovery could include public health and safety issues that are monitored over several hours or days. Long-term recovery, which is outside of the scope of the NRF, can last from weeks to months and could require that the affected area be rebuilt or redeveloped to handle long-term medical issues.

Chapter III involves the response organization and how federal, state, and local agencies and NGOs are organized to implement a response to a crisis event. According to Homeland Security Presidential Directive 5, a single template that enables all levels of government and NGOs to work together is called for. The template is based on the NIMS, specifically the Incident Command System (ICS; FEMA, 2003b, 2003c). This chapter includes an outline that incorporates organizational structure and offers on-scene flexibility for decision makers.

Chapter IV emphasizes the importance of planning. It is critical that colleges and universities plan for all types of hazardous events. According to the Homeland Security

Presidential Directive 8, there are three main benefits to planning: (a) It allows the institution to influence the course of events in an emergency or crisis by determining in advance the actions, policies, and process that will be followed, (b) it guides other preparedness activities, and (c) it contributes to the unity of effort by providing a common blueprint for activities in the event of an emergency (FEMA, 2003b). In Chapter V, the NRF provides resource material and documents to help organizations and jurisdictions with planning, documenting, and learning how to utilize resources. The NRF is a guide to help government agencies and NGOs to prepare for, respond to, and recover from an emergency or crisis event.

Crisis Leadership

The NRF indicates that a crisis management plan should be comprehensive, with clear assignments for leadership and should include a review and evaluation component that is supported by training and coordination among all departments in the institution. This requires that all participants understand of the role of the leadership or administration in crisis management. Therefore, crisis and leadership are closely related (Bion & Hart, 2003).

The crisis planning process begins with the organizational leader's perception of risk and a decision to seek ways to prevent or reduce the effects of a crisis event (Smits & Ally, 2003). If there is no commitment by leadership or top administrators, there will be no successful planning (Kiernan, 2005). When the administration and key stakeholders support crisis management, decisions are faster, safer, and more effective (Caywood, 1997). Mitroff (2004) articulated the difference between the terms *crisis*

management and *crisis leadership*. Mitroff posited that crisis management is a reactive term and that crisis managers address crises in the post-crisis phase. Crisis leadership is proactive and crisis leaders seek to identify crises and prepare a plan for responding to various crises. There is limited research on the response by leadership during a crisis event, despite leadership being well known as a critical aspect of crisis response (Devitt & Borodzicz, 2008). Leadership competencies should be clearly seen and utilized in the phases of a crisis.

Examination of leadership competencies that are revealed during each of the phases of the crisis management process provides a framework for a course of action for acquiring knowledge and providing a outline for decision making (Bolman & Deal, 1997; Pennings & Grossman, 2008; Wooten & James, 2008). The first phase of this process, signal detection, requires leaders to sense early warning signs that indicate the possibility of a crisis. In the second phase, prevention and preparation, leaders are expected to prevent or avoid the crisis, as well as prepare for a possible crisis event. The third phase requires containment of the crisis event by keeping it from spreading to other parts of the institution and the surrounding community. During the recovery phase, the leaders and stakeholders employ plans designed to regain stable operations. In the fifth phase of crisis management the leadership promotes learning by looking at the crisis from all angles (Wooten & James, 2008). The leadership must evaluate the risk or vulnerability of a crisis event for the institution or organization. Therefore, there should be some form of risk or vulnerability assessment to identify weaknesses.

Risk and Vulnerability Assessment

In planning for emergencies, leaders and stakeholders must make decisions regarding where to allocate limited resources. By identifying hazards that threaten the community and evaluating the risks that these hazards pose, leaders or decision makers can devise appropriate response strategies. Researchers (Luecke & Barton, 2004; Mitroff & Anagnos, 2001) have suggested that risk assessment should be conducted prior to planning and that the assessment should be included in the actual plan. Furthermore, there should be an understanding of what risk and vulnerability assessments are and what they can provide in the way of valuable information.

Risk assessments are steps or methods used to evaluate risk, consequences, and perceived probabilities of a crisis event that would impact or affect a particular organization, institution, or city (Haddow et al., 2008; Lindell et al., 2007). Organizations should assess their crisis risk and vulnerability by conducting risk and vulnerability assessments (Crandall et al., 2010). How risk is analyzed by the institution determines how risk is assessed holistically (Corvellec, 2010). According to Kaplan and Garrick (1981), Haimes (2004), and McGill, Ayyub, and Kaminskiy (2007), risk analysis should answer six questions related to risk assessment and risk management: (a) the potential causes of harm, (b) specific consequences of concern, (c) how likely are pairings of cause and consequences, (d) what can be done to reduce the potential for undesirable consequences or increase the potential for favorable outcomes, (e) real options and their tradeoffs in terms of associated benefits, cost and risk, (f) and the impacts of current decisions on future options.

Risk is the combination of threat to a system's weakness (vulnerability) and the undesirable outcomes (consequences) stemming from the interaction with the event (threat). Risk tells a story by describing the weaknesses that will be illuminated during an event or training. A formula used by the DHS illiterates how risk can be calculated: *Risk = Threat x Vulnerability x Consequence* (Moteff, 2005). Many risk-related methodologies include a process for asset characterization or asset identification. The methodologies could be a part of a specific step or part of a scenario identification as a prerequisite for a full-scale risk or vulnerability assessment (McGill et al., 2007). In the event of limited or no reliable information to support a decision for a possible event at a given location or institution , a comprehensive set of reasonable possible types of crisis events can be identified based solely on vulnerabilities. This method of analysis is called the asset-driven or asset-based approach (McGill et al., 2007).

An asset-driven analysis estimates the consequences of a man-made or natural crisis event. According to Lave (2002), an asset-driven approach seeks to identify vulnerable or weak points that can result in injury or death for students, faculty, and staff, and/or the destruction of property. The focus of the asset-driven approach is on finding and correcting vulnerabilities, regardless of the specific type of event. Threat-driven or event-driven approaches begin with a predetermined or known event. This approach is based on unspecified capabilities justified by intelligence or historical records (American Society for Industrial Security, 2003; Lave, 2002; McGill et al., 2007).

Event-driven approaches are appropriate for exploring events that are well understood and occurrences that can be reliably predicted from historical data. However, such approaches fall short in that they do not take into consideration emerging or unrecognized threats or natural events for which there are no documented data or information (Aven, 2008; McGill et al., 2007). An asset-driven approach brings all possible threat scenarios to the fore in an attempt to reduce uncertainty. The challenge for any risk analysis is to construct a set of events for analysis and training that is general enough to be studied in a short amount of time but specific enough to support plans for unknown events (Haddow et al., 2008; Lindell et al. 2007). There must be an appropriate balance between precision planning and decision support (Aven, 2008).

Corvellec (2010) posited four views of assessment. He contended that assessments can be viewed objectively (Haimes, 2009; Paustenbach, 2002), constructively (Reith, 2004), cognitively (Slovic, 2000), and conventionally (Corvellec, 2010). When an institution views risk objectively, it uses an exact form of measurement through modeling. In doing so, the organization and or institution collects data and perspectives from various stakeholders. The data are combined with specific crisis threats to the institution and the threats are ranked according to the possibility of their occurrence (Crandall et al., 2010). By viewing risk constructively, the institution looks at a particular event from a historical perspective. In essence, they construct a narrative of the event and use that narrative as a guide for assessing the risk of that event. When the institution views risk from a cognitive perspective, it looks at how to envision and identify risk. This is facilitated by looking at the social, psychosocial, and decision

making aspects of the leaders and stakeholders (Pennings & Grossman, 2008). The conventional view of risk assumes an uncertain occurrence that stems from an event. Viewing risk through a conventional means requires a detailed and event-specific view. Many risk assessment textbooks are event specific because they written after an event (Corvellec, 2010).

To this end, the validity of an assessment is determined by the quality and availability of data (Haddow et al., 2008). Fink (1986) indicated that crisis forecasting would be a form of threat or risk assessment. The steps to a risk assessment are to (a) identify and characterize hazards, (b) evaluate each hazard for its severity and frequency, (c) estimate the risk, (d) determine the potential societal and economic effects, (e) determine the acceptable level of risk, and (f) identify risk reduction options (Haddow et al., 2008). Forecasting would be a proactive approach in which there would be a value or percentage placed on a crisis event. This value would determine the probability of that crisis. The greater the value placed on a crisis event, the greater the risk for a potential crisis event to occur (Posner, 2004). The plan that is written should address these potential crisis events, as well as the lower-valued events for the institutions. The leadership and stakeholders should be aware of the institution's risk and vulnerabilities and design plans that address all hazards that could affect the institution.

Summary

This chapter identified the beginnings of crisis management and its ties to the federal government and corporate America. The chapter also addressed the limitation of crisis management literature and the disconnect with higher education. The chapter

discussed how institutions of higher learning could learn and develop after a crisis event through accurate definition of crisis and application of OL and OD models. The review of literature on OL and OD in organizations showed how these processes can be beneficial to colleges and universities. The key components of a crisis management plan are that the plan fit the institution and that practice of the plan include all stakeholders: students, faculty and staff, and top administrators and decision makers.

CHAPTER III

METHODOLOGY

The methodology for the study is described in this chapter. The purpose of the study was to explore how institutions of higher education learn and develop after experiencing a man-made or natural crisis event. The case study method was chosen to examine the institutions because case studies are considered to be "holistic and context based" (Patton, 2002, p. 446). Denzin and Lincoln (2005) described the purpose of qualitative case studies as, "not representing the world, but to represent the case," (p. 460). Data were collected through individual interviews with administrators who were instrumental in the design of the crisis management plan, implementation of the plan, and training for the institution. Information was also gathered through examination of the institutions' crisis management plans and comparison of the plans to the NRF. This study is rooted in social constructivism and will aid in the development of crisis management models that are based on a shared or collective understanding of crisis events (Lincoln & Guba, 1985; Schwandt, 2007).

Research Design

Creswell (1994) indicated that "the design of a study begins with the selection of a topic and a paradigm" (p. 1). The particular design of a qualitative study depends on the purpose of the inquiry, what information will be most useful, and what information will have the most credibility (Patton, 1990). Lincoln and Guba (1985) indicated that the fit is determined according to the researcher's problem and how it relates to the researcher's values, as well as outside influences and constraints. A quantitative study

involves testing a theory in a controlled environment through statistical analysis to determine whether predictive generalizations hold true. A qualitative study involves a process conducted in a natural setting that seeks to understand a social or human problem. Qualitative studies are accomplished by building a holistic picture created with words and based on the views of informants. According to Creswell (2007), the qualitative paradigm is best suited when the nature of the problem involves exploratory research and the variables are unknown. Moreover, qualitative research is used to understand the interpretations of an experience at a particular point in time (Creswell, 2007; Merriam, 2002). Specifically, case study provides a way to investigate and organize information from a single case.

Case Study

Qualitative studies often include the following research types: phenomenology, grounded theory, ethnography, and case study (Creswell, 2007; Yin, 2009). There are different purposes for the use of a case study design: to develop a concept or model, to describe and analyze a situation and/or event, to criticize social and cultural beliefs, to evaluate programs, and to identify policy issues (Guba & Lincoln, 1981). A case study is an exploration of a case or several cases through detailed, in-depth data collection and is bounded by time and place (Creswell, 2007; Yin, 2009). As a result, a case study provides a narrative description of cases and allows for a comparison to other cases in the search for pattern matching (Yin, 2009). Furthermore, a case study is empirical inquiry that looks at a phenomenon in a real-life context and provides a thick description. There are different applications of cases studies. The present study sought

to explore how, why, and to what extent crisis management plans had been created and affected by crisis events on college and university campuses.

According to Yin (2009), there are five distinct applications of the case study. The first application is to explain the link to real-life situations or crisis events that are complex and cannot be fully explained through a survey. The second application is to describe the interaction between the crisis event and the institution. The third application is the illustration/description of the crisis event as it relates to the particular campus. The fourth application is exploring the crisis event to identify weaknesses in the institution's crisis management plans. The fifth application is a form of study of the evaluation of the crisis management plans and the institution's mitigation, preparedness, response, and recovery after an event. Stake (1978) concluded that case studies are useful because they provide a view into a phenomenon that is not clearly evident.

Qualitative case studies are not meant to generalize findings. Stake (1978) found that case studies are more powerful by providing words that vividly paint a picture of the participants' experiences. This study focused on the learning and developmental process of two institutions that had experienced a crisis event. The intent was to highlight issues regarding the participants' perceptions and understanding of crisis management plans for their campuses. As Mitroff et al. (2006) noted, there is limited research dealing with crisis planning at institutions of higher education. Therefore, this study employed an exploratory research approach. Patton (2002) stated, "Exploratory work of this kind is the way that new fields of inquiry are developed, especially in the policy arena" (p. 193).

By utilizing an exploratory research approach, the study focused on a topic that currently had limited available research.

Research Components

According to Yin (2009), there are five research design parts: research question, purpose, unit of analysis, the link between the data and purpose, and the criteria to interpret the findings. A research question should address two or more of five questions: who, what, where, how and why. For case studies, the two questions that are most appropriate are *how* and *why* (Yin, 2009). A research question is a broad question that guides in exploration of a phenomenon (Creswell, 2007; Yin, 2009) and traces the links to it over a period of time. Thus, the question is the critical part of a research study.

The purpose guides the research by providing the design, the measurement, analysis, and how findings are reported. Patton (1990) indicated that the researcher should look at five alternative purposes: basic research, applied research, summative evaluation, formative evaluation, and action research. No single study can address all of these purposes. Based on the purpose of this study, the researcher used formative evaluation research. The main focus of formative evaluation is to provide information to improve a specific concept and policy for a group or organization (Thompson, 2007). Formative evaluation relies heavily on qualitative inquiry (Patton, 1990), which further provides validity to the purpose of the study. This study was designed to provide that information to strengthen current approaches to crisis management in higher education.

The unit of analysis is the third component of the research design. The selection of the sample depends on the unit of analysis (Patton, 2002; Yin, 2009). Determining

the unit of analysis during the design phase helps to shape the research question for the study. For the purpose of this study, the unit of analysis was two institutions of higher learning: Trey University (TU) and Middleton State University (MSU; pseudonyms for the participating institutions). These two institutions were analyzed for their crisis management plans and how they learned and developed better plans after a subsequent man-made or natural crisis event. The strong point of conducting qualitative analysis is that it provides an opportunity to look at the unit holistically (Patton, 2002).

There must be a link to the data and purpose, which requires an understanding of how the findings will be interpreted. There is no standard form to link the data to the purpose. However, Yin (2009) indicated the use of pattern matching. In this study, the pattern was how each institution learned and organized after a crisis event. Because these institutions were different in size, resources, and geographical locations, the pattern was expected to be different for their crisis management plans.

Linking the data lends itself to interpretation of the findings in different ways. Yin (2009) noted of this concept that the patterns should be contrasting to provide an opportunity to interpret the findings in terms of comparing the two units. This pattern should be viewed over a period of time. The comparison in this study was how these two institutions of higher learning prepared, mitigated, responded, and recovered from a crisis event and subsequently how they learned and developed. Therefore, research questions were developed to learn how the institutions prepared for the next crisis event.

Research Questions

Through naturalistic inquiry, the intent of this case study was to address crisis management plans related to man-made and natural crises on college and university campuses. Through holistic evaluation of the crisis management plans utilized in these two colleges in comparison to other universities and to corporate America, the study explored how these plans are developed based on existing corporate and higher education crisis plan models. Five research questions guided this study:

1. In what way does higher education define and address crisis events on campuses?
2. How have institutions of higher education learned from a crisis event (i.e., man made or natural)?
3. How does learning affect the development of crisis management plans?
4. How do institutions implement their plans, once they are developed?
5. How do institutions evaluate their crisis management plans?

Site and Participant Selection

The researcher selected universities that had experienced a crisis event that had led the institutions to respond by utilizing their crisis management plan. Given that research has indicated two types of crisis events, man made or natural, the researcher searched for two separate public institutions that had experienced one of these events. An added criterion was that the event had to have occurred with in the past 10 years. The purpose for selecting institutions that had experienced a crisis event within the past 10 was that, prior to 2001, there was little or no discussion of crisis management

planning in education or in the federal government (Kemp, 2007; Rubin, 2007). As a result of the September 11, 2001 attacks, the government changed its approach to responding to crisis events from civil defense to crisis management (Rubin, 2007). Two institutions that met the stated criteria were selected. It was decided that their identities would not be reported in the study, and pseudonyms are used for the two participating institutions.

Purposeful Sampling

Purposeful sampling was used to identify the two institutions as participants for the study. Purposeful sampling is used when the researcher specifically selects a site or individual for the purpose of the study (Creswell, 2007; Lincoln & Guba, 1985; Merriam, 1998; Schwandt, 2007). The purpose of purposeful sampling is to select cases that will provide useful and rich data (Creswell, 2007; Lincoln & Guba, 1985).

According to Patton (1990), 15 types of sampling that can be used in qualitative research. This study employed a purposive sampling method. As stated by Patton, the significance of purposive sampling is to select "information-rich cases" (p. 169) that will address the questions under study. While the process of sampling for the study was purposive, consideration of sample size in qualitative research is sometimes vague. As Patton (1990) contended, "There are no rules for sample size in qualitative inquiry" (p. 184). Thus, the qualitative researcher begins without a set number to guide the sampling process (Patton, 1990). In the present study, four participants were chosen from TU (student enrollment 11,000) and four participants were chosen from MSU

(student enrollment 24,000). Table 1 illustrates site selection and number of participants for this study.

Table 1 Site Selected and Number of Participants

Institution	Number of participants	Total student population
Trey University	Four	11,000
Vice President of Student Affairs Dean of Students Director of Residence Life Campus Police Chief		
Middleton State University	Four	24,000
Vice President of Student Affairs Associate Vice President of Student Affairs/Dean of Students Associate Vice President of Student Affairs/Director of Residence Life Campus Police Chief		

Participants included administrators and decision makers at TU and MSU. The two institutions and the participants from them were selected by the researcher based on predetermined selection criteria. The institutions' selection criteria included that the institution had experienced a man-made or natural crisis event on the campus that had caused significant and catastrophic damage to the buildings and caused the institution to function in an unstable environment, or caused major injuries and deaths to students, faculty, and staff on the campus.

According to the Carnegie Foundation for the Advancement of Teaching (2010), both TU and MSU are classified as research-intensive institutions. TU is located in the

southern United States near the Gulf of Mexico and is susceptible to natural crisis events such as hurricanes and tornadoes. TU is located near numerous oil and natural gas refineries, which pose potential threats for disasters. TU is an urban co-educational institution with approximate 11,000 students enrolled. TU has six colleges that offer approximately 150 programs of study. There are five endowed chairs on the campus. TU is accredited by the Commission on Colleges of the Southern Association of Colleges. It awards associate, baccalaureate, master's, and doctoral degrees. The campus has experienced several natural or weather-related crisis events in the past 6 years.

MSU is located in the Midwestern United States and is vulnerable to all forms of man-made and natural crisis events. MSU is a coeducational institution with approximately 24,000 students. MSU has six colleges offering approximately 150 programs, including graduate studies. MSU is accredited by the Higher Learning Commission and awards baccalaureate, master's, and doctoral degrees and the Juris Doctorate. Located in the Midwest, MSU has experienced some natural crisis events and a few man-made events as well.

These two institutions were purposefully selected based on the crisis events that they had experienced. The two institutions were expected to provide critical information for the study. Their difference in geographical locations was expected to reveal different experiences of crisis events. These two institutions provided a diverse sample for this study. They represented large and small institutions of higher education, with different approaches to crisis management, as well as the extent of available resources on campus.

Participant Selection

Once sites had been selected, the next step was to identify participants for interviews. Participants at each campus were the Vice President of Student Affairs (VPSA) and other "key informants," such as campus police officers and academic and student affairs administrators (e.g., Director of Residence Life, Dean of Students, Director of Student Success).

The selection of participants to interview was critical to the study. It was decided that each participant should have decision-making authority and a leadership role in student affairs on these campuses (LaBanc, Krepel, Johnson, & Herrmann, 2010). Student affairs administrators were selected because they have close ties to the student population via programs, housing, and services (Dungy, 2003). The first selection was to interview the VPSA at each institution because this is the student affairs administrator on campus. The role of that person is critical in crisis events on campus because that person provides leadership for the offices, units, and personnel in student affairs (Brunson, Stang, & Dreessen, 2010).

The next participants selected were the director of residence life, the dean of students and the campus police chief. The purpose of these interviews was to obtain the perspectives of these officers on how the crisis affected their departments and how they utilized the crisis management plan. All of these leaders, except the police chief, reported to the VPSA. Each of these leaders was expected to have a key role during a crisis event (Brunson et al., 2010; LaBanc et al., 2010).

The director of residence life has the responsibility to ensure that students who live in institutional housing are safe and secure. This person plays a critical role if there is a need to evacuate the residence halls due to an emergency or disaster. The director would be in charge of ensuring that all residents are present and accounted for prior to departing and returning. The director would report issues that may arise. The dean of students could serve as the institution's Associate Vice President of Student Affairs (AVPSA), filling in when and where the VPSA is not able to take the lead on issues during a crisis. The campus police chief serves as the main law enforcement official on campus. This department provides safety and protection and is one of the very first to respond to any crisis on campus, usually before there is a response from administration. As a result, these key officials could share lived experiences that would explain how the institutions learned and developed after a crisis event.

To adhere to the research design, it was intended that documents from corporate America related to crisis management would be reviewed. Such plans were to be obtained from companies and/or large businesses, based on their identification in the literature. These plans were to be examined to provide additional tacit as well as propositional knowledge about the study topic to guide the process of analyzing plans and development of an exemplary plan that fit the context of the study and guide construction of plans and policies as they relate to higher education. However, such plans were not available from corporate groups.

The Occupational Safety and Health Administration (OSHA) is a part of the U.S. Department of Labor. OSHA is mandated to ensure safe and healthy working conditions

(OSH Act of 1970). OSHA has the authority to investigate and sanction companies in the private sector and local, state, and federal government agencies. In 2004 the OSH Act of 1970 was amended to include emergency management planning by these entities. Specifically, section 18 encourages states to develop and operate safety and health programs. To date, only 22 states have filed plans on file with OSHA (U.S. Department of Labor, n.d.).

Miller, Hemenway, and Wechsler (1999, 2002) concluded that having an unsafe environment on campus is a public health issue. The connection of OSHA information to higher education is that there are construction sites and physical plants where employees handle dangerous materials on college and university campuses. Although these higher education institutions may not report to OSHA, many of their peripheral departments adhere to OSHA standards.

The purpose of the interviews with the designated stakeholders was to understand their experiences regarding how they responded to crises on their respective campuses. Guba and Lincoln (1981) indicated three classes of stakeholders: agents, beneficiaries, and victims. In terms of the present study, agents would be college administrators and campus police, beneficiaries would be the targeted groups in higher education, and victims would be the entire campus, including faculty, staff, students, parents, and the surrounding community. Specifically, the interviews focused on whether these stakeholders relied on their own experiences and knowledge (tacit knowledge), along with procedural knowledge (propositional knowledge) to make decisions during the crisis event. One the one hand, tacit knowledge is certain awareness of something that is

different from others (Schwandt, 2007). One the other hand, propositional knowledge is knowledge of how to do something (Schwandt, 2007). Guba and Lincoln (1981) indicated that tacit knowledge and propositional knowledge plays a role in the method of naturalistic inquiry, mainly because researchers acknowledge that knowledge is comprised of many different truths and realities.

Entry

The next step was to gain entry to selected participants through professional contacts, as well as email and telephone conversations. According to Gall, Gall, and Borg (2003) and Creswell (2009), identifying appropriate sites and working with gatekeepers to obtain permission is a critical step in a case study. These gatekeepers can remove barriers that the researcher might encounter as an outsider (Merton, 1972). As Lofland (1984) observed, doing advanced research for information and becoming familiar with terminology and procedures can assist in avoiding the perception that the respondent's time is being wasted. In this study, the researcher's personal experience in law enforcement, together with familiarity with crisis management and higher education, helped to dissolve potential barriers and helped to provide meaningful dialogue.

Initial Contact

The plan to gain access to the participants in the selection institutions did not go according to plan. The first step was to send an email to the VPSA at each of the originally selected sites. The first selected institution was not willing to participate due to legal issues. The second selected institution did not respond, despite telephone calls; it was not possible to make contact with the VPSA. After consultation with the

dissertation committee chair, it was decided to seek participation from other institutions that would fit the study criteria.

An email to TU resulted in a response in a matter of minutes from the VPSA, welcoming the study. The VPSA indicated that his staff would be available for interviews. This contact resulted in access to TU's dean of students, director of housing, and campus police chief.

The second institution, MSU, presented more challenge. There was no response to the first email to the MSU VPSA. Contact by the dissertation committee chair, who knew the VPSA personally, resulted in a response to the introduction letter. After the VPSA responded to the emails, it was decided that I should conduct a telephone conference with the VPSA, to briefly give a overview of the study. A telephone conversation with the VPSA's administrative assistant led to a conference call in which the VPSA agreed to participate in the study and facilitate access to other participants at that institution.

Based on those contacts, appointments were set the two VPSAs and the campus police chiefs. Coincidentally, while interview dates and times were being arranged, a crisis occurred on one of the campuses. This incident led to the decision to use pseudonyms for the participating institutions.

Confidentiality

Due to the nature of one of the crisis event, there was a need to provide an additional layer of protection to the institutions and the administrators. Thus, the names of the two institutions were removed in favor of pseudonyms and all possible identifiers

of the institutions were obscured. According to Gall et al. (2003), the researcher of a case study must develop a personal ethical perspective. Protecting the confidentiality of the participants in this study was a vital component of maintaining a sound research study (Samaha, 2006). The researcher's experience as a police officer was valuable in consideration of confidentiality in this study. No data about participants was shared with anyone other than the interviewee and the dissertation committee chair. No copies of digital recordings or interview notes were provided to any person other than the researcher, the participant, and the transcriptionist. All digital recordings were destroyed as soon as the information was transcribed. For security purposes, all research material was kept in a locked confidential file cabinet.

Prior to the beginning of each interviews, the participant signed a consent form. The form included provisions regarding use of a digital recording device during the interview, the opportunity for the participant to review collected statements from the interview, and assurance that a copy of any written productions, including the resulting data, would be available to the participant upon request. The form specifically assured complete confidentiality by not providing participant names or names of the institutions involved in the study.

Data Collection Method

I utilized multiple sources of data in this study (Yin, 2009). The primary source of data was review of extant literature, documents, and interview data. I conducted eight one hour in-depth interviews (Yin, 2009) with each key campus administrators at the two participation institutions. To support findings from these respective institutions

additional data in the form of commission reports, scholarly articles, and emergency management plans were reviewed.

A standardized research protocol—referred to as a standardized open ended or semi-structured interview protocol will be utilized to collect data across participants (Merriam, 1998). While questions in the standardized protocol will pose similar questions across participants— during the interview an informal conversational interview will be used to obtain data that is non-standard across respondents and contexts (Patton, 1990). Semi-structured interviews were used to gather in-depth information about the lived experiences of the participants and to access their experiences and realities (Spradley, 1979). Patton (1990) stated three major reasons to use a standard research interview: (a) The exact instrument used in the evaluation is available for inspection by decision makers and information users, (b) variation among interviewers can be minimized where a number of interviewers are used, and (c) the interview is highly focused so that interviewer's time is carefully used.

Informal conversational interview questions were asked of participants to obtain information that the interview protocol did not reveal during the interview. Patton (1990) stated that a standardized research protocol for interviews allows the interviewer the latitude to pursue a subject of interest during the latter part of the interview. The informal interview was unstructured and provided the opportunity for data to emerge naturally through the discussion. Informal conversational interview questions were not scripted for all participants, so to capture the lived experiences accurately, the interviews were audio recorded using a digital recorder. Lincoln and Guba (1985) expressed

concern about recording the interviews due to possible recorder failure; however, the modern digital recorder is more reliable than the reel-to-reel tape recorders in use when they expressed their concern. Still, two digital recorders were used simultaneously as a means of protection from failure. Recording the interview provided the distinct advantage of capturing data more accurately than hastily written notes and allowed the researcher to focus attention on active listening during the interview. Even so, notes about the interview and observations of the participants were recorded by the researcher.

Review of Documents

Yin (2009) wrote that, for many case studies, documents may be relevant. Documents may enable the researcher to obtain the language and words of the participants and serve as an unobtrusive source of information (Creswell, 2009). The primary documents for this study were the institutions' crisis management plans, the NRF, and documents from OSHA's web site. These documents were analyzed to glean the most common information to discern a pattern. All of the documents were available online and the general public has access to them.

Theoretical Framework

Institutions of higher education not only learn from crisis events that they have experienced; they also learn from crisis events that take place in other venues. Colleges and universities take lessons learned from these events and apply new policies and guidelines to prepare for potential future crisis situations. However, institutions utilize different theoretical frameworks to address their response and learning processes. To

understand crisis management planning, a theoretical framework is necessary to frame this process. However, the challenge may be determining which set of theories best fit.

Even though organizations have begun to recognize the effects of crisis events on their organization, many are not prepared to manage a crisis. Wang (2008) connected crisis management, OL, and organizational change to strengthen the ability of organizations to address a crisis and the way in which these constructs change the organization. Because OL and crisis management are basically linked, Wang established that learning is taking place before a crisis, during a crisis, and after a crisis. For an organization to be equipped to handle the full range of potential crises, the organization should evaluate the learning process and identify what was learned subsequent to the crisis event. Where does this process for learning begin for an organization?

Crisis theories set the framework for planning, mitigation, response, and recovery efforts. This framework is utilized to develop plans, coordinate training, indicate contingencies, and allow for improvements. In essence, crisis management planning is not linked to a specific guiding theory but rather to a combination of several theories and theoretical perspectives. With crisis events that often spiral out of control, organizations and systems, leaders, and decision makers must be prepared to deal with chaotic events and manage complex systems (Seeger et al., 2005). Chaos theory provides a lens for looking at large complex systems, such as higher education (Murphy, 1996; Seeger et al., 2005). Using this lens, interactions between social constraints and technical constraints are illuminated. It should be noted that the term *chaos theory* does not reflect the intent of the theory, which seeks order and certainty.

Chaos theory posits that, through random and unpredictable events, there are underlying patterns that can be seen only in retrospect. Murphy (1996) detailed seven key concepts within Chaos theory, the first of which is *nonlinearity*. This concept proposes that, rather than a cause-and-effect relationship, sometimes there are small to major changes to a system. This can lead to more changes, leading to an end result that does not look anything like the original concept. In essence, nonlinear system stimuli can cause an organization to react differently and in random ways to a crisis event. This makes long-term prediction of results impossible.

The second concept of chaos theory is feedback. According to this concept, a system tries to maintain a normal state and any deviation from that norm triggers corrective action. A chaotic system uses two types of feedback: negative and positive. Even though the feedback is called negative or positive, there is no value on the feedback on the event or situation. Instead, these type designations are used to differentiate how a system will use the feedback. Chaos introduces changes to a system through positive feedback because a negative feedback keeps the system in a stationary state (Gleick, 1987; Murphy, 1996). Each new step is based on the previous step. Once change is introduced, each subsequent step can take the system farther and farther from the norm because it is based on a system that is increasingly disorderly. "While negative feedback regulates, positive feedback amplifies deviations, working to destabilize existing states and introduce new patterns" (Murphy, 1996, p. 97).

The third concept in chaos theory is phase changes (Murphy, 1996). These changes are sudden changes within a chaotic system that can change the underlying

order of an entire system so that it may no longer even resemble the original system. While the outcome of these changes cannot be predicted, signs can point to their emergence.

The fourth concept in chaos theory is that of strange attractors, which refers to a key part of any chaotic system. According to Murphy (1996), "An attractor is an organizing principle, an inherent shape or state of affairs to which a phenomenon will always tend to return as it evolves, no matter how random each single moment may seem" (p. 98). Attractors function similarly to personality in an individual. While knowing one's personality may not accurately predict what one would do in any situation, personality is a good predictor of how one will behave as a pattern or practice. Strange attractors are "where outcomes wander constantly and unpredictably within a bounded range" (p. 98). Thus, while the outcomes cannot be predicted, they can be known to be constrained within certain boundaries. Strange attractors enable researchers to make sense of complex relationships that appear to be in chaos. Moreover, strange attractors enable a system to create a new order.

The fifth concept in chaos theory is scale (Murphy 1996), which deals with the distance from which the system is viewed. A system will look very different depending on whether it is viewed from a micro level or a macro level. Chaos theory posits that a system can be linear at times and chaotic at times. Thus, a complete picture of the history of the system is needed to identify the underlying patterns, phase changes, and attractors.

The sixth concept in chaos theory is that of fractals and correspondences, which constitute a qualitative means of describing and understanding the world. The term *fractal* describes the qualitative approaches used to measure complex systems (Mandelbrot, 1977). The purpose is to abandon quantitative means of measurement, which can be inaccurate or misleading, in favor of fractals, which can compare similarity in patterns "between forms that vary vastly in scale but have similar patterns of complexity" (Murphy, 1996, p. 100). The underlying order of a system is revealed in fractals, which are naturally occurring events or phenomena that represent the complexities of a system and its behaviors (Murphy, 1996). With this in mind, it is possible to identify similarities within a complex system. As a result of the similarities, patterns begin to develop and subsequently provide a form of order to a chaotic system (Sellnow, Seeger & Ulmer, 2002). Thus, fractal patters may provide some predictability.

The seventh concept in chaos theory is self-organization and self-renewal (Murphy, 1996). Chaotic systems reorganize from within by taking elements of their history to form new patterns. This reorganization is a natural process (Stewart, 1989). The new pattern is a result of the bifurcation that occurred at the beginning of the chaotic event. Through self-organization, new procedures and understandings emerge from the system. Thus, the dichotomy of order and disorder, or normal and unstable, has been proposed as a useful conceptualization of crisis management (Sellnow et al., 2002).

With crisis events becoming more prevalent on college campuses, it is essential that higher education institutions be prepared to deal with unexpected events, as well as manage complex systems. Although no specific theory is associated with crisis

management for the current study, chaos theory was deemed to be the most closely aligned theory. Seeger (2001) stated, "Chaos theory affords a representative model of crisis situations and provides a more comprehensive and expansive understanding of how these systems operate" (p. 164). Chaos theory provides a lens for looking at a large complex system, such as higher education. This lens illuminates the interactions between social constraints and technical constraints (Sellnow et al., 2002). Chaos theory seeks to expand the institution's perspective of the event.

While the name *chaos* suggests that things are out of order, the true definition is actually contrary to this notion. The theory represents several models that seek to describe the behavior of a nonlinear system. Chaos theory represents a system that moves along a single route until it reaches the center point and then moves through an abrupt change (Koehler, Kress, & Miller 2001).

Higher education can be thought of as the system in which colleges and universities serve as the organizations. One aspect of this study was to determine how OL (institutional) affects OD (institutional) after a crisis event from a crisis management perspective. Lalonde (2007) posited a disconnect between organization management and crisis management. One concept was the sociological aspect of an organization, which would merely address the crisis as a social event. The crisis management perspective looks at the strategies used to prevent, respond, and recover from a crisis event. Even though there is learning after a crisis event, there is still no clear understanding of the development of an organization. Numerous crisis events have been studied individually but those studies do not seem to shed light on the crisis holistically.

Lalonde indicated that the reason for these gaps is that there is no set theoretical framework that incorporates the two disciplines. However, chaos theory was seen as a complex and robust theory for constructing the interview questions for the current study.

Interview Questions

The interview questions for this study were developed through the theoretical framework of chaos theory and reviewed by dissertation committee members. According to Merriam (1998), a theoretical framework is the around which a study is built. Merriam stated that qualitative research is "designed to inductively build rather than test concepts" (p. 45). Given that crisis management is not built upon a universally recognized theory, chaos theory was used as the framework for this study.

Strauss, Schatzman, Bucher, and Sabshin (1981, as cited in Merriam, 1998) posited four major categories of questions: hypothetical, devil's advocate, ideal position, and interpretive. The hypothetical question asks the participant to speculate about what something might be like. The devil's advocate question is asked to obtain information on a topic that may be sensitive or controversial. The ideal position question is asked to elicit both information and opinion. The interpretive question provides a check on what the researcher understands and gives an opportunity for more information to be obtained. Based on this position, four types of interview questions were developed. The first type asked the interviewee to define *crisis* (hypothetical). The next type of questions asked the interviewee to draw on past experience of a crisis event and to identify the role that he or she had played during that event (devil's advocate). The next type of question was driven by tenets of chaos theory (ideal position questions). The last type of question

addressed each phase of crisis management, allowing the participant to *interpret* what a crisis is and what is needed to be known about the various phases of crises.

Data Analysis Process

For case studies, analysis consists of making a detailed description of the case and its setting (Creswell, 2007). In essence, data analysis is the process of making sense of the data (Merriam, 1998). From a constructivist stance, the purpose of data analysis in this study was to interpret and understand the lived experiences of the participants during and after a crisis event at their instituion. According to Yin (2009) four dominant analysis techniques can be used in case studies: pattern matching, explanation building, time series analysis, and program logic. Yin (2009) and Creswell (2007) agreed that collected data can form patterns by looking for similar or constrasting information.

Content analysis, as described by Lincoln and Guba (1985) was used in this study. The interviews were transcribed and data were identified by units of meaning and concepts. According to Lincoln and Guba, units of meaning and information come together in a process known as unitization. These units can be found in interview records and notes, including verbal and nonverbal cues from the participant. Each transcript was thoroughly reviewed numerous times to become familiar with the participant accounts prior to coding. Unites were then coded according to their meaning and placed on note cards. Coding is a process to identify and reduce data (Merriam, 1998). A code can be in the form of a word, a phrase, a sentence, or a paragraph. Coding is used to label a section of data and to allow retrieval of sections of data with the same or similar codes. Once the data are coded, they can be linked to form themes.

This process was done by grouping and labeling groups under common headings (Lincoln & Guba, 1985; Merriam, 1998).

Themes are the classifications that emerge from comparing categories. Using processes similar to those detailed above, similar categories were grouped until every note card had been placed into a theme. This process continued until all data were analyzed and established redundancy (Lincoln & Guba, 1985).

Trustworthiness

Trustworthiness was assured through an array of measures. The basic issue in relation to trustworthiness is how the inquirer can persuade the reader that the finding of the inquiry is worthy of attention (Lincoln & Guba, 1985). Lincoln and Guba identified four tests of trustworthiness:

1. Truth value: How can one establish confidence in the "truth" of the findings of an inquiry for the subjects (respondents) with which and the context in which the inquiry was carried out?
2. Applicability: How can one determine the extent to which the findings of a particular inquiry have applicability in other contexts or with other subjects (respondents)?
3. Consistency: How can one determine whether the findings of an inquiry would repeat if the inquiry was replicated with the same (or similar) subjects (respondents) in the same (or similar) context?
4. Neutrality: How can one establish the degree to which the findings of an inquiry are determined by the subjects (respondents) and conditions of the

> inquiry and not by the biases, motivations, interests, or perspectives of the inquirer? (p. 290)

To answer the first question, regarding "truth value," member checking and peer debriefing were utilized. Lincoln and Guba (1985) defined member checks as "data, analytic categories, interpretations, and conclusions tested with members of those stakeholding groups from whom the data were originally collected. It is the most crucial technique for establishing credibility" (p. 314). After each interview, a copy of the transcription was sent to each participant to check for completeness and accuracy of responses.

According to Lincoln and Guba (1985), peer debriefing is a process of exposing oneself to a disinterested peer in a manner paralleling an analytic session for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer's mind. For the purpose of this study, peer debriefers (the dissertation committee chair and two faculty members) reviewed the researcher's reflective journal, research memos, and data (raw and transcribed).

The second question of applicability was addressed through Lincoln and Guba's (1985) established criteria for trustworthiness: credibility, transferability, dependability, and confirmability. Lincoln and Guba posited several techniques for establishing credibility. The current study used triangulation, peer debriefing, and member checking. The focus of credibility is to provide the reader assurance that the researcher has providing a complete and accurate representation of the respondents' realities. Lincoln

and Guba (1985) recommended that the researcher use member checks to establish credibility. Therefore, transcribed interviews were reviewed by the participants.

Transferability provides the "thick descriptions" (Geertz, 1973) of the respondents' lived experiences and realities (Lincoln & Guba, 1985). The purpose of transferability is to provide the reader with enough information to duplicate the case study (Schwandt, 2007). Lincoln and Guba (1985) described purposeful sampling as a part of transferability. For this study, the researcher selected two institutions that had experienced man-made or natural crisis events. Obtaining the lived realities and tacit knowledge of the interviewees provided the thick description that is needed to meet standards of transferability.

As for dependability, this concept is not determined by whether another researcher could replicate the results but whether the conclusions are consistent with the data and the results make sense (Merriam, 1998). According to Lincoln and Guba (1985), dependability and confirmability are interrelated and must be examined and established independently. They explained that dependability looks at the inquiry process and confirmability looks at the findings of the inquiry. To ensure dependability and confirmability in this study established audit trails were used.

The third question of consistency was addressed using audit trails. An audit trail is a recorded documentation of the research and methodology processes during a case study (Gall et al., 2003). Lincoln and Guba (1985) described an audit trial as a way to check data from a variety of data sources, such as journal entries, documents, and interviews. The audit trail in the current study ensured that the data were examined

systematically and that patterns within the data were uncovered to generate trustworthiness. The audit of this study was conducted by peer debriefers who regularly engage in naturalistic studies and were familiar with the process and procedures followed by the researcher.

The final question of neutrality was addressed through the member checking process and peer debriefing. Member checking involves seeking feedback from study participants about the data and study conclusions (Lincoln & Guba, 1985). According to Miles and Huberman (1994), this feedback can be solicited in a variety of ways and at various stages of the study. For instance, member checking can be conducted in the early stages of the study by giving the transcripts to the participants, which allows them to check for accuracy of their descriptions of their experiences. Member checking can be accomplished after data analysis is completed or throughout the interviewing process. An advantage of conducting member checks at the end of the study is that more is known about the phenomenon and the researcher can present a detailed and organized document for the respondents to critique. Thus, the researcher can receive feedback "at a higher level of inference" (Miles & Huberman, 1994, p. 276) than can be gained through review of individual interview transcripts or field notes. Within the context of this study, field notes were used to chronicle the experiences of participants, along with additional notes taken regarding context and nonverbal cues.

Peer debriefing involves use of an outside expert who checks the inquiry process (Lincoln & Guba, 1985). This person periodically meets with the researcher to share ideas about methods (including sampling and data analysis) and make suggestions of

ways in which the study should proceed (Schwandt, 2007). The dissertation committee chair served in this role in this study. These sessions were used to address questions about the aim and scope of the study. Because written records of the debriefing sessions are usually kept by both parties (Lincoln & Guba, 1985), the researcher maintained a research memo log, containing all notes and records from debriefing meetings.

Once trustworthiness is ensured, the researcher should ensure that the inquiry is credible. To provide credibility to the findings and interpretations (Lincoln & Guba, 1985), triangulation was used in this study. Triangulation uses multiple sources of data to strengthen the reliability of the study (Lincoln & Guba, 1985; Merriam, 1998). In qualitative research, reliability and validity are derived throughout the whole process of data collection and analysis by the interaction between the researcher and participants; the triangulation of data and interpretations provide a thick description (Merriam, 1998). Guba and Lincoln (1981) indicated that there is no internal validity without reliability. According to Denzin (1978), there are four basic types of triangulation: data triangulation, investigator triangulation, theory triangulation, and methodological triangulation. Examples of multiple sources of data are interviews and review of documents, such as crisis management plans. For the purpose of this study, multiple sources of data were used by conducting interviews of key informants at the two campuses and then validating data from the interviews with two corporation crisis management plans. The use of these multiple methods and sources of data ensured reliability and validity of the study.

Researcher's Role

A major tenet of qualitative research is the role of the researcher as the instrument of data collection and analysis (Lincoln & Guba, 1985; Merriam, 1998). To minimize the impact of personal views and/or biases on the research, it is important to recognize whether/how they affected data collection and interpretation.

I am an African American male with more than 12 years of law enforcement experience. I have been certified as a police officer in two states and have received training in interview techniques and training as a hostage negotiator from the Federal Bureau of Investigation. My training has included interviewing and active listening skills.

As a result, I consider that my experience and knowledge were beneficial in collecting data via interviews. I find that I think holistically in that I do not separate my past experiences as a police officer and my current experiences as a college student. I was aware that I must actively seek ways to be cognizant and avoid allowing my past experiences as a law enforcement officer to cloud my view of current events in the completion of this study. I recognize that I am the instrument that is being used in this process and should allow that process to take place.

Summary

This chapter summarizes the qualitative research methodology used for this study. The research topic for this study focused on the evolution of crisis management in higher education and how higher education institutions develop and learn after a crisis event on their campus. Case study was chosen as the research method and chaos theory

provided the theoretical framework for the study. Recognized qualitative techniques used in the study included triangulation, coding, audit trail, peer debriefing, and member checks to ensure trustworthiness.

CHAPTER IV

FINDINGS

The purpose of this study was to explore the developmental process that institutions of higher education undergo subsequent to a crisis event on campus and the impact of these processes on the creation and changes of crisis management plans. Recent crisis events on college campuses have led to research that examines how institutions develop and learn after a crisis event. In the face of an assortment of crisis occurrences on campuses, the literature offers numerous definitions such as "disturbance," "unexpected event, and "interruption." In addition to the various definitions of crisis, the manner in which institutions should respond to crises remains uncertain, as many factors (e.g., location, type of crisis, response time) dictate the immediate approach to addressing a situation. Five research questions guided this study:

1. In what way does higher education define and address crisis events on campuses?
2. How do/have institutions of higher education learned from a crisis event (i.e. man made and natural)?
3. How does learning affect the development of crisis management plans?
4. How do institutions implement their crisis management plans?
5. How do institutions evaluate their crisis management plans?

Overview

A qualitative method of inquiry was employed to address these research questions. Specifically, a case study approach was used to examine how institutions

learn and develop subsequent to a crisis event. The case study design was selected due to its exploratory approach of in-depth data collection bounded by time and place. A case study looks at a phenomenon from the perspective of the participants' real-life experiences and provides a thick description. Based on this choice of design, the researcher selected through purposeful sampling two universities that had experienced a man-made or natural crisis event: TU and MSU.

Both TU and MSU are classified as research-intensive institutions, according to the Carnegie Foundation for the Advancement of Teaching (2010). TU is located in the southern United States near the Gulf of Mexico. It is an urban co-educational institution with approximately 11,000 students. This geographical area is susceptible to natural crisis events such as hurricanes and tornadoes. TU has experienced numerous hurricanes in the past 6 years and is located near several oil and gas refineries, which poses other threats. MSU is located in the midwestern United States; given its geographical location, this institution is susceptible to a variety of forms of natural and man-made crisis events. MSU is a coeducational institution with approximately 24,000 students.

These two institutions were purposefully selected based on the crisis events that they had experienced. The two institutions were expected to provide critical information for the study. The difference in geographical locations was expected to reveal different experiences of crisis events. These two institutions provided a diverse sample for this study. They represented large and small institutions of higher education, with different approaches to crisis management, as well as the extent of available resources on campus.

After the sites were selected, the next step was to identify participants at each institution. It was decided that the participants would include the VPSA and other "key informants," such as the campus Police Chief and other student affairs administrators (e.g., Director of Residence Life, Dean of Students). These participants were chosen because of their leadership roles in a crisis event and the expectation that they would have knowledge of the institution's crisis management process. Eight interviewees (four from each of the two institutions) were selected. A total of eight (8) in-depth interviews were conducted at the institutions, which included four participants at each institution (Vice President of Student Affairs (VPSA) campus police chief, Director of Residence Life, Dean of Students) to gather information about the lived experiences of the participants and to access those experiences and realities.

The interviews were transcribed and content analysis ensued. The data from the interviews were broken into units of meaning and concepts. Once data were assigned to units, the researcher assigned codes according to their meaning, placed them on note cards, and analyzed them for emergent themes. The note cards were grouped according to those themes until all note cards had been sorted. This process of grouping the cards according to themes was done three times to ensure accuracy.

Review of Documents

Using the process of triangulation, the researcher utilized information from OSHA, which is a part of the U.S. Department of Labor. OSHA is responsible for ensuring a safe and healthy working environment in the private sector, including local, state, and federal government agencies (OSH Act of 1970). As of 2004, OSHA

incorporated emergency management requirements for all of the aforementioned agencies. The connection to higher education is that many colleges and universities have construction sites and physical plants where employees handle dangerous materials on campus. Although these higher education institutions may not report directly to OSHA, many of their peripheral departments (e.g., physical plant) adhere to OSHA standards.

After reviewing the OSHA website for critical information and documents, the researcher discovered that only one of the participating institution's states reported participation in the OSHA State Plan. The state report indicated that, under the OSHA State Plan program, states develop and operate their own safety programs that meet or exceed the federal government's criterion for safety in the workplace. The safety plans should address all forms of crisis events ranging from man made (workplace violence), to natural (tornadoes, hurricanes, fires), including handling of hazardous materials.

Themes Emergent From the Data

After interviewing the eight participants from the two selected institutions and conducting a content analysis of data, the following themes emerged: conflicting definitions of crisis, institutional response to crisis, institutional issues related to a crisis, leadership roles during a crisis, and continuous learning, each with subthemes. Figure 2 illustrates the five themes of crisis management in higher education. Table 2 summarizes the themes and associated subthemes. Table 3 clarifies the codes that were used to associate each participant to the appropriate institution. For example, TU-IP1 refers to Interview Participant 1 from TU.

Figure 2. Emergent themes from the data regarding crisis management in higher education

Table 2 Themes and Associated Subthemes That Emerged From the Data

Theme	Associated subthemes
Conflicting definitions of crisis	Unanticipated or unexpected Major disturbance Interference with students learning An event that affects or impacts the campus
Institutional response to crisis	Luck or trial by fire Common sense Proper planning Being flexible
Continuous learning	Debriefing Training Retooling or reconfiguring Development of new programs or offices
Institutional issues related to a crisis	Resources Communication Recovery efforts to returning the institution to a stable environment
Leadership roles during a crisis	Roles/responsibilities Decision making Team building

Table 3 Codes Used to Designate Participant Interviewees

Institute	Participant interviewee	Code
Trey University (TU)		
	Interview Participant 1	TU-IP1
	Interview Participant 2	TU-IP2
	Interview Participant 3	TU-IP3
	Interview Participant 4	TU-IP4
Middleton State University		
	Interview Participant 1	MSU-IP1
	Interview Participant 2	MSU-IP2
	Interview Participant 3	MSU-IP3
	Interview Participant 4	MSU-IP4

Conflicting Definitions of Crisis

Data collection consisted of interviews with eight participants from two institutions. A criterion for participating institutions was that they had experienced a man-made or natural crisis event and that participants had been working at the institutions during the crisis event.

According to the literature, there is no commonly used definition of the term *crisis* (Hermann, 1963). During the interviews, participants provided several definitions, based on their personal experiences. The purpose of asking participants for a definition of the term was to determine whether there were different views of crisis from a higher education perspective. It is interesting to note that none of the participants provided a definition that was used in their institution's crisis management plan. Within the theme of conflicting definitions of crisis four subthemes emerged: (a) unanticipated or

unexpected, (b) major disturbance, (c) interference with students' learning, and (d) an event that affects or impacts the campus.

Unanticipated or unexpected. Much of the influence in defining the term *crisis* comes from societal influences. According to participant MSU-IP3, society plays a major role in how the term crisis is defined and how the institutions should respond to a crisis. A crisis can range from something as minor as a flat tire on a car to a catastrophic event. TU-IP2 define crisis as follows: "I'm going to answer from the University's perspective and not necessarily from a personal perspective. It seems like in today's world, everything's a crisis." This statement indicates that anything that goes wrong or is not expected to happen would be considered a crisis. For example, if an institution's computer server crashes or is infected by a virus, this would be considered a crisis. If much of the institution's business and other information is saved on the server and those data are lost, this would cause major issues with the daily operation of the institution. TU-IP2 was the only participant that indicated that he would give a definition from the University's perspective and not from a personal perspective. Although he did not verbalize the definition that is written in the campus plan, he noted that a definition exists but stated that he could not remember it and would try to obtain the definition. Another participant gave a definition of crisis from a personal perspective:

> My definition is a very simple one. Crisis is an unanticipated kind of thing. When I say unanticipated, not that you can't plan for crisis, not that you can't do that, but crisis itself, when it happens, is not something that you plan to happen at that moment. It happens unexpectedly and you are now required to deal with the

> issue. It will require a great many resources. It will require a great number of people and you can expect things will go wrong within that crisis. Otherwise, it wouldn't be a crisis. (MSU-IP4)

The unanticipated event is one way to define a crisis is but other definitions could explain a crisis. The cause of an unanticipated event may not be clear. However, in cases of major crisis events that have adverse results, such as a shooting on campus, in most cases the intentions of the suspect are not known in advance. In essence, when a crisis event occurs, it is unexpected, and the severity of the event is not known until after the event has ended. TU-IP4 gave an alternate definition of crisis:

> A crisis to me is an unplanned event that you can't necessarily control from the standpoint of it happening. In some cases, I guess you could say some crises you may be somewhat aware of, but to me it's an unplanned event that in some ways that you have no control over the outcome.

From this definition, the notion is that a crisis is not planned and is out of the control of others. An example of an unplanned crisis could be flooding in a dormitory due to a water main break. No one knew that the water main would break and would cause a dormitory to flood. In the beginning stages of the flood, it is out of the control of maintenance or any other stakeholder.

Major disturbance. Crisis was also defined as a major disturbance; "the word crisis means that everything is basically falling apart and nothing is working like it's supposed to, which mean it's an adverse situation and a major disturbance" (MSU-IP4). This definition indicates that, despite measures that have been put into place to prevent a

crisis, the crisis can still occur. Through preventative maintenance, the tire on the automobile should function properly unless there is breakdown of the structure of the tire (e.g., a nail or screw punctures the tire and it goes flat). In this case, the flat tire was unanticipated and preventative measures did not work.

Interference with students' learning. A crisis interferes with students and their learning. The crisis can cause disruptions in the semester and not allow students to attend classes for a few hours to a few days. Another participant provided yet another perspective of crisis:

> Anything that's going to get in the way of the academic progress. Something that's going to do physical harm to our buildings or to our students that is going to get in the way of their academic progress or their health. In my mind, it would be the most immediate crisis. (TU-IP2)

This participant defined crisis from a campus perspective and a societal perspective, focusing on education and students' learning. Certainly, the educational process can be affected by a crisis event. Regardless of the extent of a crisis, many students are likely to be affected, ranging from loss of class time due to building closures to institution closing. Participant MSU-IP3 defined crisis as "anytime there's injury to anyone within the campus community and/or there's significant damage to a university building and/or structure." Thus, a crisis would have an impact on the operations of a college campus and community. In essence, a flood from a water break or from a hurricane would be likely to damage campus buildings.

Impacts the campus. The impact of a crisis can affect not only the campus community but also the surrounding community as well. In this instance, a crisis was defined as "a significant event that has a sustained impact on a culture or a community" (MSU-IP3). Given that there are two forms of crisis events—man made and natural—these events can have a profound effect on the community on and off the college campus. On the one hand, in the case of a natural disaster (e.g., hurricane, tornado), weather-related events can knock out power and cause flooding, all of which will impact the campus. On the other hand, man-made crisis events can occur on campus and move off campus or occur off campus and move on campus. When participants were asked whether their definition of a crisis off campus would be different from the definition of crisis on campus, one said,

> It's going to be exactly the same. A crisis is a crisis. You're going to have to manage it in the same way. It doesn't make any difference if you have a tornado that rips through a city or if you have a tornado that rips through campus. You still have to deal with things in the same way. (MSU-IP4)

In any of the situations, the crisis event can impact the college campus. "Whether it happens on campus or off campus, if it's impacting one of our students, it's probably impacting this community in some form or fashion" (MSU-IP1). College campuses have a tie to the community in more than one form. In responding to a crisis on or off campus, there is an understanding that what occurs off campus can have an effect on campus as well.

It would appear that the participants used their personal experiences and tacit knowledge to define *crisis*. One participant noted that his definition had changed over the years:

> My definition of crisis has changed over the course of my professional career. What used to be defined as a crisis was not something with some sort of sustained impact. It was a smaller incident, that sort of thing. With a larger scope and with more responsibility, I've grown. I'm at a place now where I would say it is a large incident that has a sustained impact on a culture or community. (MSU-IP3)

In summary, although participants were quick to respond with definitions of *crisis* apparently based on their personal and institutional experience, no definition provided by participants clearly defined crisis in higher education. The only conclusion to be drawn from these definitions is that a crisis, as it relates to higher education, is an unanticipated major disturbance that impacts the campus, interfering with students' learning or academic process. As I was interviewing the participants and asking them to define crisis, there was almost no hesitation in their response to my question to define the term crisis.

Institutional Response to Crisis

The participating institutions responded to a crisis event in different ways. Responses concerning a man-made or natural crisis event varied by participant and by institution. Four subtheme emerged in the theme of institutional response to crisis: (a) luck or trial by fire, (b) common sense, (c) proper planning, and (d) being flexible.

Luck or trial by fire. According to two participants (TU-IP1, TU-IP2), responding to a crisis as luck or trial by fire appeared to come from a personal perspective. MSU-IP2 said that the response process should follow the institution's plan but noted that there are no guarantees that the plan will be as effective as designed. However, past experiences of administrators play a part in the response to a crisis event from the institution's perspective. According to MSU-IP4, "Past experiences, education, all of those things play together but certainly taking all of the information available to me and using that information to make certain that we have the best possible organization."

In this case, a previous response to a crisis at another institution or the current institution can be a good teacher for future responses. But if those prior responses are used, they may or may not work for other institutions. Simply utilizing past responses to address a similar crisis could be considered luck if they work for the current institution. However, trial by fire would indicate that administrators are left to their imagination during a crisis event. Therefore, this notion would call on common sense when administers respond to a crisis event on their campus.

Common sense. The concept of using common sense emerged from the interviews. According to TU-IP2, "We have policy books and we have procedures, but when it comes down to it, it's common sense in my mind." Common sense would indicate that many responses from the institution administrator will be based on their experiences and not on the designed institutional plan. Another participant gave another perspective of the use of common sense:

> We have things documented and we have our plans in books, but I'll tell you if a hurricane is coming, the last thing I'm going to go to is policy Number 1.33. That's the last thing I'm going to deal with because I know what has to take place in a hurricane, I've been through it. (TU-IP1)

The common sense approach may not work if the campus has not experienced a crisis; in that case, the response should come from some form of crisis management plan. However, knowing the common needs of the campus community after a crisis event can be considered common sense.

> What happens if those things occur; people are going to need shelter, people are going to need water, people are going to need food. But before you even get to that point, you're going to need to get them to a safe location. So you need to get them out. If they were in a building, you need to make sure that you can account for everyone, that everyone is safe. If everyone is not safe, get help and provide medical attention. (MSU-IP2)

Basic common sense would be to provide some form of safety measures by providing a safe location for evacuation and providing medical attention. According to one participant, common sense is one piece of the response but not always the best approach to a crisis.

> I like the term *common sense*, but it's unfortunate that the time that we refer to common sense is generally in uncommon situations. So we talk about how people didn't use common sense in this uncommon situation. I don't know that I

> would call it common sense. I think that I would just call it good planning and good risk management. (MSU-IP4)

Due to the uncertainties of a crisis, a basic plan is critical for effective response to a crisis. A basic plan should come from DHS and should utilize an all-hazards approach.

> The all-hazard concept was designed with the idea that just about every crisis will have similar things going on that you have to do and you just have to recognize that evacuation is evacuation. I don't care what it's for; you're still going to have to do the same things. (MSU-IP4)

By planning ahead of a crisis event, the institution is taking a proactive approach to campus safety and response to a crisis. Regarding planning, MSU-IP4 stated, "The more important thing is what you do before the crisis, not what you do after the crisis." Being proactive in planning for a crisis event allows for a better and more concise response to a crisis.

> You have to be proactive. If you're not proactive, if you're just trying to shoot from the hip on this stuff, and it's a major situation, and you're in a huge media market, you're going to get eaten alive. You have to be very proactive in thinking about the different scenarios and issues that you would encounter in any given crisis. Being proactive is absolutely critical. (MSU-IP1)

In essence, institutions should design campus crisis management plans from a proactive stance, which can mitigate the effects of the original crisis event and subsequent critical events.

Proper planning. During and after a crisis event, the media will play an important part in the response and recovery efforts. A plan that addresses the media would serve as a critical approach to being proactive. In essence, once a crisis event occurs, the media will want answers. Having the appropriate person and responses to those questions could mitigate a media crisis for the institution. Addressing the media aspect could help the institution to distribute valuable information to external stakeholders as well. Therefore, addressing the media can be considered to be a proactive part of the institution's plan. According to MSU-IP2, "A crisis plan is proactive as well as reactive." The interviewee was indicating that there must be a balance between being proactive and reactive in designing a crisis management plan.

> A good crisis response plan will be a combination of both. Obviously, crisis response is reactive; when something occurs, you are reacting to it. But in terms of emergency management, the pieces prior to that response is, how can you prevent those things from ever occurring or getting to that point. The other piece is mitigating it along the way. So in terms of the broad emergency management plan, there is a preventative piece to it, but in terms of crisis response, your response is reactive. (MSU-IP2)

Understanding how being proactive affects the crisis can help to mitigate effects of a crisis event in the reactive phase or response to that crisis.

Conversely, it is not possible to plan for every crisis event; perhaps all that can be done is to prepare for a crisis generally. Participant MSU-IP1stated,

> You cannot plan for everything. You can't–it's impossible. You can put preparation in place, you can prepare, but there are some things that are going to happen. You're going to have a great plan, but there was just that one thing that you didn't plan for or think about, and that's when you have to be reactive. And it's okay to be reactive–if you can't think on your feet, you can't be reactive

In essence, it would be advantageous to be proactive as it relates to responding to crisis events, but this proactive posture is realized through a crisis plan. The purpose and goals must be significant in the makeup of the plan. The goals and purpose of the crisis plan should clearly be known by all stakeholders to allow for a swift, accurate response, as well as to provide a sense of safety for the institution's stakeholders, including students, faculty and staff, and administrators.

Flexibility. To provide a safe environment for learning, the crisis plan should take into account all stakeholders, each of whom brings a unique perspective to responding to a crisis. When lives are in danger, a campus crisis management plan should be flexible so that responders can utilize the plan for a wide variety of crisis events. Participant MSU-IP1 stated,

> The purpose is that the plan allows us to act swiftly. The plan allows us to act strategically. The plan allows us to act in a way that we are really considering all of our various stakeholders within and beyond the university, such as parents, alumni, community members, students, faculty, and staff. It allows us to make sure that we are moving in a way that we will be very thoughtful and caring in all

> of our actions to make sure that we protect them or we at least reduce the amount of damage that can come to our community. The plan allows you to do that.

In a crisis, internal and external stakeholders want accurate information. A crisis plan should be implemented in a manner that is smooth and flexible enough to provide appropriate information to stakeholders swiftly and accurately. Training or practice can allow the institutions to implement the plan seamlessly.

Participants commented that flexibility is critical in the response, which must be fluid.

> You have to be fluid in your response. If part of your response, you see you are not effectively serving the family or the residents on the floor, whatever the case may be, you need to be able to be fluid enough to alter or at least do something different to significantly impact or make a difference in your support. At the same time, you have to be fluid enough as well as strong enough to make a decision to alter that response as well. (MSU-IP2)

According to MSU-IP3, "The flexibility has to be in the plan itself and within the staff." Flexibility has to be built into the plan to allow for an all-hazards approach that can address the many types of crises that can occur on and off campus. Interviewees mentioned that the element of flexibility in emotional response is not usually addressed in campus crisis management plans.

MSU-IP3 stated, "Some of it is, do you have the capacity to first of all have the emotion to handle that process." The administrator must be mentally and physically prepared to respond. Each person is different but there has to be a way to approach the

crisis with the proper emotions. The most appropriate emotion depends on the crisis. Spirituality is important to know and understand, for example, "Just navigating that from you have so many different communities here and so many different beliefs and how do we carefully navigate that?" (MSU-IP3).

Continuous Learning

When a crisis event occurred on one participant's campus, learning was taking place from the moment the crisis began to the time when the crisis event was over. In this sense, learning is a continuous process. The subthemes that emerged related to continuous learning were (a) debriefing, (b) training, (c) retooling or reconfiguring, and (d) development of new programs or offices.

Debriefing. Debriefing is critical to understanding what went well and what did not go well in a crisis event. Debriefing allows all parties involved in the response to the crisis to communicate the positive and negative aspects of the response. During the debriefing there should be an open dialogue among all in an environment that is conducive to learning from the actions taken. Most important, the debriefing should be a part of the campus crisis plan. To illustrate the point, MSU-IP2 stated, "We bring the team together and talk about what went well, what didn't go so well, what are some things that we can do better. That should be a part of any crisis plan." The interviewee pointed out that the campus crisis management design phase should include plans for debriefing. The interviewee continued,

> Not only have a plan to respond to the moment, but you should have a piece of your plan where you convene or at least come back together and talk about the

> things that went very well and things that didn't go well and what can you do to make sure that they go better next time.

It was noted that each response to a crisis, whether good or bad, can serve as a marker for how the institution could improve the response in the next crisis. Additionally these events could cause the institutions to rewrite the campus plan.

> You should have a baseline plan. Every time you operationalize that particular plan, it should be as a part of the operating plan, and pausing long enough to reflect and see what went well, what didn't go so well, and what you can do better. (MSU-IP2)

The debriefing is just as important during a crisis as after the crisis is over. Such debriefing would be more of a informational meeting to provide checks and balances of what needs to be done and what has been completed. According to TU-IP4, debriefing was valuable in addressing all needs of the institution.

> We had a big bulletin board and we started with number 1, number 2, etc., of things that needed to be done. Who was taking care of what? And course, we would meet every afternoon and we'd go over everything. What was done, we'd mark through it, that's how we did it and it worked out very well. Then, we put a plan together.

This debriefing allowed administrators to discuss daily issues and follow up on what was being done to reopen the institution. The debriefing not only served as a check and balance but allowed all administrators to understand the response and to identify gaps in the response. This notion was discussed by TU-IP4:

> You learn that sometimes having big procedure manuals and all these different things don't always work. In theory they're good, but they're not when it comes time to actually apply that rule, it may not really be practical. So those are some of the things that you kinda go back and see that here is the list of things that we said we would do, here's what actually worked when we tried to apply those steps.

The debriefing can be in a meeting forum or open conversation. In either format the discussion and focus should be geared toward creating the best plan possible. Debriefing is a way to communicate among all departments and personnel that are or potentially would be involved in a crisis response. Once there are weak areas that should be addressed, those areas can be worked on during training events.

Training. Training is critical in response to a crisis event on college and university campuses. Training provides an opportunity to utilize the campus crisis management plan. The purpose of the training is to identify gaps or weaknesses in the plan, as well as the probable campus response. Many plans address the response to a natural crisis. However, there should be an all-hazards approach (MSU-IP4). The plan should specifically address not only natural crisis events, but also man-made crisis events.

> You need a plan for natural disasters. But what we are seeing across the U.S. and perhaps the world as well, there's man-made crisis that you need to include as part of your practice protocol as well. I strongly suggest and encourage institutions to look at what they sense happening on college campuses. They need to

> really incorporate a crisis in their practice and respond to some of the more common problems that they see occurring across the U.S. (MSU-IP2)

Thus, colleges and universities should look at what possible crisis events could arise on or near the campus. On the one hand, they can look at other institutions and see what has occurred and address those types of crisis events that they have experienced. On the other hand, if institutions have not experienced some types of crisis events, they should train for those events.

> There needs to be a rehearsal. If you don't have crisis frequently enough, where you don't practice or at least operationalize your crisis plan or where you don't communicate with your various campus partners (i.e., the police). You need to have a rehearsal that allows you to do that. (MSU-IP2).

Another aspect of training would be for all responders to know what role they play and where to go when a crisis occurs.

> We need to make certain that, the next time around, we put the information out over the radio and for all stations, the reception point is here. Do not go to the scene directly. Go to the reception station and you will be told from there to go to the staging area and you will get your instructions as to where to go and what to do from the staging area when we need you. (MSU-IP4)

Although it may take time for personnel to get to the area of operation, when they arrive on the scene, they know what to do and are not standing around waiting for instructions. This is practiced and written into the campus plan. When asked how often

they practiced or trained with their crisis management plans, responses ranged from every quarter to once an academic year.

> We try to work at a minimum of four times a year, pretty much every quarter. We want to review or bring it out and look at things that are affecting the seasons. For example, hurricane season starts in June. So prior to that quarter, we want to start talking about hurricanes. Prior to school opening, this is the information that we want to get out to the parents and potential new incoming students that are coming to the university that may not be familiar with this area. (TU-IP4)

To prepare for the new school year or for upcoming hurricane, tornado, or forest fire seasons, institutions should be looking over and talking about the procedures and plans if a crisis event should occur. These discussions should be done prior to, during, and after a training event. This is the time for critical and accurate feedback from members of the response team and leadership (MSU-IP1).

> You know, things do go wrong. They go wrong all the time. You know how it is. There's always something wrong with what you're doing. So it's really kind of hard to brainstorm what you could have done right. At the same time, I think there are little things that everybody's saying, "Yeah, we should've done it this way." (TU-IP2)

This participant commented that it is impossible to think of everything that might occur during a crisis on campus. However, it is imperative that those parties who are responsible for the response to a crisis event be trained and able to handle the event.

Another part of the training process is that all members should participate in training and that those members have knowledge of the crisis plan. One participant shared that they had not been a part of the training for the division. However, they knew that training sessions occurred. They also knew that there was a plan for the institution but did not have access to the plan and did not know what was in the plan. While this was reported by only one participant, this lack of information and participation is disturbing. To have the knowledge and some form of a response plan, there must be some form of training with the plan to determine whether the plan is likely to work. When the plan does not work, revisions may be necessary to address issues that were initially omitted.

Retooling or reconfiguring. When a part of the plan does not work in the intended way, the plan must be revisited and redesigned. Weaknesses that were exposed during a crisis must be addressed. This does not mean that the complete plan has to be reexamined or redone, only that modifications are made.

> That doesn't mean that you have to go back and go away from it completely. But certain things may or may not work. In some cases, it just may be the way that the rule or the procedure was applied that may need to be changed. The procedure may be good, but just the way it's applied may not have actually worked the way you wanted it to. Or you probably could apply it differently to get a different outcome. (TU-IP4)

A retooled or reconfigured plan allows for accurate responses to a crisis event. When the response team members meet and discuss the reconfiguration of a plan, the meeting should be outcome based.

> Every meeting should be outcome based. So we go to our meeting; we get this thing done, this works out, we've gone through it and we said, "OK, now that we've got it, I need results. When you come back, bring this with you and it should be done. This is what we've done here today." . . . And then we build on that. (MSU-IP4)

An example of retooling or reconfiguring during a crisis event is the use of social media.

> What I did with Facebook and the social media piece changed completely. So that was an interesting dynamic for me; how I really relied on Facebook to get information out, to see where the emotion of the community was, where was the next phase of things. (MSU-IP3)

This participant was the only one who mentioned the use of the social media to obtain information and to provide information to the campus community. Current students on college and university campuses are computer and technology savvy. These students have a strong and positive view of technology (Holiday & Li, 2004). In the digital information world, students' personal communication and social networking primarily center on cell phones, iPods, MP3s, personal computers, and text messaging (Howe & Strauss, 2000). According to TU-IP4,

> The best is using multiple ways. You can't get away from putting out just plain signs or different signs than formal–putting things formally in writing and presenting that information. But at the same time, I think using cell phones, text messages, and different things are good ways to alert somebody that something is coming and direct them to somewhere else to get that communication.

This retooling or reconfigurations can fill gaps that were identified during and after a crisis event and during training.

New department and program. New campus programs or offices should address the needs of the campus community, including students, faculty, and staff, as well as the surrounding community. When a crisis event occurs, there are no preconceived notions or knowledge of what will happen. However, after the event, briefing points can identify some form of process, action, or group to address weaknesses. Some new programs and new offices have started to do this. One such new office that should be created on every campus is the Emergency Management Office (EMO).

> We have an Office of Emergency Planning on this campus that is unparalleled. All they do is emergency management and planning. They're constantly working and building the plans for how we do the things we need to do. You go to most universities. they may have one part-time person working on emergency management. (MSU-IP4)

The campus EMO was established to handle planning and management of emergency operations on campus. The EMO serves as a source of information by

providing and updating the telephone list of all administrators, police officers, and external resources. The office can access building plans on campus. This department is critical to the crisis management for the campus and should have a staff that is capable of handling all of the institution's needs.

Another valuable department in meeting a crisis is counseling services. These services would be beneficial to the recovery phase of a crisis event.

> If there are needs that the faculty have in terms of support–we're thinking about reaching out to the students and faculty with any counseling support, guidance or advice that they will need as we begin to cope and move forward. We're reaching out and setting up a liaison individual with the family to make sure they have someone assigned, working with any family that's impacted by this. (MSU-IP1)

With the main focus on returning the campus to a stable environment, a counseling service could foster recovery. Students, families, faculty, and staff are affected by the crisis event; there should be a form of outreach for these stakeholders. Stakeholders will respond to the crisis event in many different ways, and institutions should be able to address these issues. During a crisis event, MSU experienced a high volume of telephone calls from families and students who were in crisis themselves. According to MSU-IP3, after a major crisis event on campus, they brought counselors on campus to help those who needed it.

> We really kept kind of a clean tally on everybody and then we called them the day after, we called them 2 days later, a week later. We continued making those calls until we made a move in actually setting up our Office of Support Advo-

> cacy. We brought over 500 counselors to campus when we restarted a week later.

The Office of Support Advocacy is a source of information to help all stakeholders to recover from the crisis event. The purpose is to track the recovery of stakeholders and to provide necessary services. The campus counseling center can provide recommendations or refer people to other services of which the administration is aware. "We rely, to a certain respect, heavily on the Counseling Center and their recommendations" (TU-IP1).

> If it's deemed that a person has said things or made statements that would lead you to believe that they're potentially harmful to themselves or others, then that person would have to either agree to see the counselor or be automatically suspended from housing until they could be evaluated. (TU-IP1)

Understanding that Family Educational Rights and Privacy Act (FERPA) laws prohibit student's information to be shared with other departments and personnel, there should be some connection to the crisis plan that addresses their recovery, as well as the institution's recovery.

Granted that MSU experienced a man-made crisis event, TU's experience could have a lasting impression of stakeholders as well. TU-IP2 commented, "I think if you're dealing with something that, if somebody was physically affected on campus, I think it's a long-term recovery. Even Virginia Tech I'm sure has not really recovered."

This recovery process can last for extended periods of time. Therefore, there should be some form of resources to assist stakeholders to deal with the crisis event. In

the natural crisis event at TU, no one was hurt. However, many people suffered from being displaced from school, friends, and family.

In summary, when the thought of a crisis event and how the institutions learn from the event, there is continuous learning in progress. Learning is occurring prior to the crisis event through training for an all-hazards approach to crisis management. After training and after the crisis event, there is debriefing and discussion of what worked and what did not work in the response to the crisis. Weaknesses are addressed in the campus crisis management plan. Once weaknesses are identified, there should be a retooling or reconfiguration of the plan to address the weaknesses. This does not mean that the entire plan should be rewritten, just the areas where there are gaps or weaknesses. Next, the learning may lead to the creation of new programs and new departments that can be a part of the recovery from a crisis event.

Institutional Issues Related to a Crisis

Data analysis identified the theme of institutional issues related to a crisis. When a crisis event occurs, issues arise to affect the institution, ranging from the resources needed to respond to the crisis or recover after the crisis to repair of damaged buildings. The subthemes that emerged related to institutional issues were (a) resources, (b) communication, and (c) recovery efforts to return the institution to a stable environment.

Resources. After a crisis event, resources can be in short supply and hard to obtain. Examples of such resources are personnel, equipment, food, and water. Related to colleges and universities, a place to evacuate to and equipment needed to respond and recover from the crisis are also important. Having the appropriate personnel to address

the crisis event is vital to response and recovery. The decision of what campus personnel are to remain in the event of a natural crisis should be made during the planning phase of the institution's plan. In the case of a natural crisis event,

> Nobody gets to go. We're 24/7. That's just the way it is. Of course, the ones that do have to leave, like our parking office people, up here in the front office. Some of the dispatchers we let go because we don't need but one dispatcher per 8 hours to catch the phones where we're housed. We would let them stay. We would keep them. But, the ones that leave, I would make damn sure that we had phone numbers where they can be reached. (TU-IP4)

This participant identified key personnel who would stay on campus during a campus evacuation. After experiencing several natural crisis events, choices were added. The administration decided to have dining staff remain on campus and placed a generator in the dining hall.

> Food service—that was a major problem. We had no food service when we had Rita. Now, we've got a generator hooked up for the dining hall. We've got a food service person there that cooks. They have all the meals for us for all the workers and all of the police. (TU-IP3)

Once the issue of who will stay in the time of campus evacuation was identified, there was the issue of housing these personnel. "The women's soccer field house is really nice and a new facility. It's got showers and lockers. You have to sleep on the floor but we have mattresses from housing we can take for that" (TU-IP3)." Housing of

personnel and food services for those who stay during an evacuation should be discussed and written into the plan prior to a crisis event.

Another layer of complexity in a crisis event is that resources could be limited or in use at another campus or location.

> The challenge that we find is that during each crisis the resources become very scarce. Simple as just transportation, just the basic necessities, food and shelter automatically become a challenge. Because these storms affect such wide areas, not only are we trying to pull resources together and be able to make sure that we can get students and staff out of harm's way; the rest of the cities and towns and everything that's affected are going through essentially the same thing. (TU-IP4)

Emergency personnel or first responders might be deployed to another part of town and be unable to respond to the institution. "We are self-sufficient because we have dealt with the possibility that we would have multiple casualties and no medical emergency response coming from someplace else or limited emergency response coming from somewhere else before" (MSU-IP4).

The two institutions in this study had addressed in their campus crisis management plans the possibilities of having limited resources. One such resource could be trained counselors who can help with the healing process. One participant stated the significance of such counselors:

> The other thing that is somewhat related with our office of support and advocacy is that we've learned a lot about being victim advocates and our resources that are available to us. So rather than continuing to tap just institutional resources,

> what we can do is tap into county, state resources, and federal resources. (MSU-IP3)

Another resource that could be extremely limited is medical personnel. Depending on the type and extent of the crisis, medical personnel and equipment may be in another part of the town or campus. Addressing potential shortages of medical personnel, one participant said,

> We are trained as EMTs. Every single person in this police department is an EMT, a certified EMT; every single one of them. We also have an advanced life support nontransport unit, which means that we have paramedics that are doing that. (MSU-IP4).

The reason for cross training officers is that it could take several minutes from the time police enter into an active shooting situation and the scene is declared safe. In this case, once the officers have secured the scene, they can begin to treat the injured.

> If all you have is basic first aid training, there's only a few minor things that you can do to try and take care of your people. But we have first aid kits stationed all over the campus. We have emergency medical kits for EMTs all over campus. So we can go to a location in just about any building, open up a kit, and have two or three EMT bags right there so EMTs can go to work. Any major catastrophic event will have bags on site that the EMTs can grab and go to work. Every-body's an EMT. (MSU-IP4)

In the event that the injured need to be transported to a hospital, having an ambulance on campus is a good idea. However, this requires a good working

relationship with the ambulance service and the fire department. "We work hand in hand with the fire department. But our local fire department here, we've got to have them. So, we've got a good rapport with them" (TU-IP3). TU-IP3 shared that an ambulance is at every police training and sporting event. As a result, if a crisis event occurs on campus, there is no gap in time in the response from police to medical; all personnel and equipment are already on campus.

Communication. When a campus experiences a natural crisis, normal communication is no longer available to the institution, first responders, and other internal and external stakeholders. For example, if a hurricane or tornado occurs, cell telephone towers and telephone lines are likely to be damaged, which would render those forms of communication inoperable. To combat this communication issue, the use of satellite phones was discussed.

> If every other form of communication that we have goes down, guess what's still going to work? Sat phones. Satellite's not going down. It's likely to be up, I don't care what's happening down here on this side of things, the satellite phone is still going to be able to work because that satellite is still going to be up there. (MSU-IP4)

In essence, when land lines and cell phones are down, satellites phones can still be operational because satellites are not affected by power loss in the crisis-affected area. However, satellite phones can present problems, such as sound quality. One participant expressed dislike for satellite phones:

> We had satellite phones that didn't work. We tried the satellite phones. They're useless. You have to take 'em out in the weather anyway. You have to turn the antenna up and they're just inaudible. It sounds when you're talking on satellite phone like you're talking to a drunk. It's just bad. So, we turned them in. (TU-IP3)

Nevertheless, in a loss of power, communication will continue to be an issue in a crisis event. In the event that all forms of communications between agencies and stakeholders are inoperable, runners can be used to pass information.

> Runners will distribute the information to the other people in the field that need it. Now, we have enough satellite phones so that we can not only have one for our office and our emergency operations center, but we can distribute them to key players out there. (MSU-IP4)

A part of the communication piece is contact with students and their families during and after a crisis event. One participant indicated that the institution used text messaging for students. The institution also provided a telephone with a answering machine in each of the student dormitory rooms:

> In the event that a major storm or disaster hits this area, what is your plan? To give an example, one of the things that constantly changes is probably the way we communicate. I'm not a big texter, but I'm just amazed at it. Prior to this semester, we provided individual phones that had traditional answering service machines on every phone in the dorm. Some of those things that apply on how you get information out to students is one that constantly changes. (TU-IP4)

One institution has a horn or siren on campus in case there is no electricity and no way to notify the campus of a crisis (TU-IP1). TU-IP1 called the siren a source of quick notification. "That siren will tell people that when you hear the siren, if you are safe, stay where you are. If you are not safe and can, get to a safe place, stay there and wait on a message." Limited communication could have an effect on response by other resources, from personnel to equipment.

Recovery efforts. The recovery phase of a crisis event would include repairs and reconstruction after the event. This phase could be a major issue. Addressing these issues in the plan could minimize response time for repairs. A part of the construction is the notion of reopening the campus or building. According to TU-IP1,

> Our major objective was to get things back where we could go back to school and not lose the semester. Immediately, we set a date to come back and that was our projected date to get back. Then we would prioritize the building.

In the case of a natural crisis, the process of identifying the needs of the institution cannot take place until the event has passed.

> We're trying to recover in a much shorter time frame based on the same resources that everybody else is having. So, when we're looking for single people, people who do roof repairs and make those kind of repairs, everybody else is trying to pull from that same resource. It becomes a challenge. (TU-IP4)

As a result, having companies on standby is critical. To facilitate this process, a plan that includes a restoration company could result in quick turnaround of repairs of the institution. TU-IP4 stated, "We use various contractors, depending on the damage

and how things are affected." Knowing what company is responsible for what on campus is essential. "Window work was contracted to X Glass, Y Roofing was working on the roof, water damage, and roof damage. Z Floors is drying out and repairing the floors" (TU-IP1). However, there were still issues in retaining a restoration company after a crisis. For example, having many new people on campus poses a problem with theft and possible further damage to the property.

> We had to get people in here to pull up all the carpet and dry things out. We had all these dorm rooms that were full. The kids left all their stuff. We had to protect that property. All these fly-by-nights they brought in here were picked up off the street corner to work. But we had no way of knowing who's hauling what out and all this stuff is running through everywhere. So, we had a little problem with that, which is understandable. (TU-IP3)

After a crisis event, many new companies suddenly appear, offering repair and reconstruction services. Many start shortly after a natural crisis only to make quick money. TU-IP4 agreed pertaining to contractors: "As I mentioned, we have issues as far as staff, from either contractors or just other people, just reporting things, and when they come back, their things are missing." As a result, when repairs are made, the main focus of the institutions is to return the campus to a sense of stability.

After an institution has experienced a crisis event, the campus environment is unstable. The institutional priority is to reopen the campus as soon as possible, keeping in mind the importance of the safety and protection of students, faculty, and staff, as well

as property. The details of safety will vary depending on the nature of the crisis. For example, there may be looting, theft, and violence on or near the campus.

> The biggest thing is the emphasis that we put on safety. Because we are firm believers in the fact of what everybody says in the academy. They say academics first and everything else after that. I agree with that, and I've been on both sides. I'm in student affairs now and I don't like to draw that line. I was a full professor on the academic side, and you can't have academics if you don't have a safe environment. (TU-IP1)

With safety the number one priority of any institution, there must be goals and a plan by which to accomplish the goals. The campus crisis management plan could address these goals to reopen the campus, as well provide a process by which the institution responds to the crisis. Setting goals is critical when planning responses to a campus crisis.

> You have to have goals. I would say that the primary goal is putting a time, a realistic time frame on doing things. Then let your goals be flexible enough within that time frame that, if something does happen, you can adjust. It's not the end of the world if you do. Our particular goal with these two major hurricanes was to get the campus clean, get the campus safe, get everything back in order and back in school as quickly as possible, not lose much time. (TU-IP1)

As soon as possible after a crisis event, the goal is to reopen the campus, including getting faculty and staff back to the campus and returning students to class. Participant MSU-IP3 stated, "The goal is to try to get back as close to normalcy as

possible and to at least allow students to continue to be productive in the classroom environment." MSU-IP3 further highlighted the importance of returning to normalcy.

> The goal is to try to get back as close to normalcy as possible. Obviously, when any of us go through a significant crisis, it would never be what it was prior to the crisis. The goal is try to get back as close to what it actually was. That means for students resuming going back to class. We need to assist them to get back to that point. It takes time.

In any crisis event, recovery can take many shapes. However, there has to be a plan in which all stakeholders will be identified and provided necessary help. The institution's most important stakeholders are the students. If is critical to meet students' needs and allow them to return to class with minimal interruption.

> You still will have to be focusing on helping students meet their academic or personal goals as it relates to them being on your campus. As for the faculty side, try to help them to get back as close to normal as possible too. (MSU-IP3)

The basic goal of the plan "is to try to get things back to normal as close as possible" (MSU-IP2). Related to determining whether the campus community is stable, participant MSU-IP3 stated, "The measure for us has always been how the community has come back together." Returning to a safe campus is vital to students.

> To bring a sense of safety to campus as quickly as possible is probably the primary goal. To keep our community safe and then moving into getting back to normalcy of operations as quickly as possible. Frankly, there is a big part that is

about media and how to control the perceptions and not let people run away with our image. (MSU-IP3)

Institutions of higher education are responsible for providing a safe environment that is conducive for learning. According to TU-IP1, "Safety is our number one concern. Our philosophy is that if you don't have a safe campus, you cannot educate anyone. So, safety is at the top of our list." In the aftermath of a crisis, according to MSU-IP2, "That means, for students, resume going back to class physically, spiritually, emotionally, and intellectually. We need to assist them to getting back to that point."

MSU-IP3 stated that the purpose of the campus crisis plan was "to bring a sense of safety to campus as quickly as possible is probably the primary goal. To keep our community safe and then move into getting back to normalcy of operation as quickly as possible."

In summary, the institutional issue related to a crisis is a major notion that should be addressed before a crisis event occurs. Having a comprehensive plan that incorporates an all-hazards approach indicated by DHS could foster a swift response and recovery.

Leadership Role During a Crisis

The last theme that emerged from the interviews was the leadership role that is operationalized during a crisis event. The leadership role is important as it relates to the phases of crisis management on a college or university campus. Three subthemes related to leadership during a crisis emerged: (a) the knowledge and understanding of the leader's role and responsibilities, (b) decision making, and (c) team building.

Leader's role and responsibilities. In times of a crisis event, awareness of the chain of command and who should be contacted is imperative. The roles and responsibilities of leaders should be known in advance by being carefully articulated in the campus crisis management plan. The plan should designate "first contacts" and "secondary contacts".

> It's clear to everybody that I am, in fact, on our list of contact people. It's the President of the university and then I'm the next one on the list. That's just the way things have evolved. The police normally call me before they call the President. But in crisis management, I'm generally the first person there and the first one on the scene with the police.

The crisis plan should mirror the National Response Framework (NRF), which indicates use of the National Incident Management System (NIMS).

> When you have a scene, the highest-ranking police officer has to be in charge. Then when I show up or the President shows up, the officer is still in charge. Yet we are talking and dealing with it and we go from there. We use a whole lot of common sense. (TU-IP1)

In essence, this form of understanding on the part of leadership personnel is taken from the NIMS ICS. However, everyone in administration and on the campus has a role in times of crisis. According to MSU-IP3,

> When there was a major crisis here, everyone was called or asked to respond. Everyone has a role, everyone has a purpose. Some roles are more significant

than others, but you still have a role, regardless of who you are on that chain.

The role that you play may be outside of your normal area of responsibility. People in leadership roles must be flexible and able to adjust during a crisis event. These people could be working in capacities during a crisis that are different from their normal roles. Such roles must be clearly designated in the crisis management plan to avoid confusion during the crisis event.

> That's the other critical piece that's part of what the campus community understands. One, you need a role; two, the role that you play may be outside of your sole responsibility, outside your job. (MSU-IP3)

Those who are actively involved in the crisis management planning and response as it relates to the crisis response team wear many hats. Being adaptable is critical to the success of the leader in a crisis event.

Decision making. During a crisis, a secondary crisis event may emerge. This event would require someone to take charge and address the crisis. "You know, it's the same thing you do in your own home and you need somebody to step up and take charge. Sometimes it's that position of power that takes control" (TU-IP2).

At any given time during a crisis event, someone should be in a leadership role, addressing the crisis. For example, if the media aspect of a crisis event is not addressed correctly, another crisis might begin, ranging from bad publicity to dangerous misinformation.

> I was very much in an informal leadership role with the crisis response team because our vice president was in a formal leadership role. He was quickly taken

> away to sit with the emergency management team during that process. So I kind of informally stepped up and found another role of leadership. (MSU-IP3)

An additional layer of responding to a crisis is that the leadership should take on a teaching role. Teaching other members of the crisis management team can lead to growth in knowledge and the ability to become more productive leaders. Experience and knowledge come with leadership. Teaching others how to respond to a situation can minimize delay in response. Being exposed to a variety of experiences increases confidence and knowledge. Participant TU-IP2 stated,

> As an administrator, my job is to teach them what to do. With this staff here, we talk about it and I bring it up. "What are we going to do?" So, in their mind, it's kind of like, "I see this again, I'm going to hit the ball. I'm going to hit it running."

Another important requirement is for each person to know his/her job and to be able to "improvise and adjust to the situation" (MSU-IP4). MSU-IP4 stated,

> It's kind of like listening to good music. Good musicians, some of the best players in the world, can't read a note. They know how to improvise. They know how to play with one another and they play according to what the structure of the song is. But if somebody changes the structure in the middle of the tune, they know how to follow because they know how to improvise.

In a crisis event, the ability to change with changing aspects is important; this skill can be taught to leaders and team members. Therefore, leaders should teach responders to improvise.

> You can teach them the policies and procedures but, if things aren't going according to plan, according to policy and procedure, then what happens? If you teach people to improvise, music changes, they change with the program and they now know what to do and they get it done and that's something that you have to reverse, something that you have to practice. We do that upfront so we don't have to worry about how do we fix this on the backside. (MSU-IP4)

The original plan may or may not work during a crisis event. In that event, the leader has to be able to recognize this and change. For example, when a response to a crisis is not achieving desired results, it is important to identify what is not working. Not all leaders are skilled at quick change.

> Occasionally, you will hear a leader say that we need to stay the course. If the course that you are staying is not effective or perhaps not making the impact that you want it to make, then obviously, you need to address that and alter the original course. (MSU-IP3)

During a crisis, the leader should lead with compassion and concern for all stakeholders. Knowing who the stakeholders are and understanding the leader's role in meeting the needs of those stakeholders is the means to show compassion and concern for the stakeholders. Leaders in a crisis event are being viewed critically by the public; their every move is scrutinized and evaluated. According to MSU-IP3,

> There are people who looked at our President's and our Vice President's leadership perspective and leadership style. Our president has always reinforced that style as well. There are people from the feedback I heard that were watching

> him. His response was very much coming from the heart. He is a caring person and he has been highly involved all along. (MSU-IP3)

Asked about what role leadership has in a crisis event, all participants suggested that the leaders make major decisions and make sure that all aspects of the crisis event are addressed. They noted that improvisation and compassion play major roles in the decision-making process. According to TU-IP1, knowing what the President wants is critical to the decision-making process.

> I know who my committees are. I'm not going to pull together six or eight people to make a decision, particularly in a crisis. Now I will in something else, but in a crisis it's been made very clear from the President what he wants us to do. That's a key to all this, knowing what he wants us to do.

In order to know and understand what the President wants, debriefings and training come into play. Including provisions for the training and debriefing in the plan avoids the need to search for answers from leaders during the crisis; all crisis team members know what the President wants done during a crisis.

Participant MSU-IP4 indicated that most administrators are concerned about their response to a crisis rather than about managing risk. In essence, this would be a decision made during the designing phase of a campus crisis plan.

> Safety and security starts with prevention. You do everything that you can to manage risk up front and not respond to it from the other side. So many institutions are reacting to what those are. Something happens; they react. We don't

> react. We respond and we respond because we're prepared. So what we're doing is a response, not a reaction. (MSU-IP4)

Many participants described their various backgrounds that assist them in their decision-making process. On the one hand, according to MSU-IP2, "just life experiences are our best teacher." TU-IP2 stated, "I have enough common sense to know what I need to do and, truth is, if the VPSA wasn't here, I feel totally comfortable leading and making decisions." It should be noted that both MSU-IP2 and TU-IP2 have prior military experience. On the other hand, MSU-IP3 stated, "I kind of informally stepped up and found another role of leadership." This participant had extensive experience in student affairs and relied heavily on those experiences during a crisis. During the crisis event that involved MSU-IP3, his original leadership role was not utilized as much as the secondary role. In times of a crisis event, administrators rely on their past experiences, whether from prior jobs, life, or past crisis events, to make their decisions.

Team building. Members of a institution's crisis response team can come from the campus faculty and staff. MSU-IP2 remarked, "All of our team members bring in different skill sets and competencies. It's just how can we take advantage of their strengths as we enter or prepare to respond to this crisis." As a result, each one of the members brings in a different set of skills. However, not everyone should be placed on the team.

> Everybody wants to be a part of it. But not everybody is prepared to be a part of it and I think that you have to develop these things with some sagacity. You

> can't just go out and, "you, you, you, you, you" and pull them out and expect that you're going to get something accomplished. (MSU-IP4)

Team members who are randomly chosen may not understanding crisis management and may not be mentally or emotionally prepared to handle the rigors of dealing with a campus crisis. Therefore, choosing the right team members is just as important as designing the crisis management plan. TU-IP2 remarked about choosing team members,

> The biggest trick in any type of crisis, situations where you need people to step up, is employing the right people who feel comfortable stepping up and understanding that's their role.

In the designing stages of the crisis plan by a committee, team building should be taken into account. The committee should have an idea of crisis management. For example, a professor from the Sociology Department may not be able to define crisis management but still be an asset when the crisis event includes problems of race or ethnicity. There is a risk of randomly assigning faculty and staff members to the crisis planning committee.

> We talked about buildings and emergency operation plans. They did like most universities do and created a committee. A committee of all the best and the brightest minds out there on the university campus to build this plan. What do any of them know about emergency operations? Nothing. They might know something about sociology. They might know something about biology. They may know something about engineering. But what do they know about emergency planning? Nothing. (MSU-IP4)

Thus, it should be acknowledged that not everyone has to have expert knowledge of crisis planning or crisis management. However, a professor of chemistry would be vital if there is a chemical spill in a campus lab. Thus, the planning, the writing of the crisis plan, the team members, and leadership should be flexible to adjust to the crisis event but firm enough to return the institution to stability as quickly as possible.

Conclusion

This chapter presented data obtained from interviews and reviews of documents that were collected over the course of an academic year. The purpose of collecting information through these multiple methods was to triangulate data that explored the lived experiences of key administrators at two institutions of higher education that have experienced a man-made or natural crisis event. Trustworthiness of the data were achieved through use of multiple sources of data: interviews, review of OSHA's website's, and reviews of the Homeland Security NRF.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

This chapter provides conclusions and recommendations based on the findings from the data reported in Chapter IV. The chapter is divided into four sections: (a) a summary of the study, (b) findings related to the literature, (c) implications of the study, and (d) recommendations for future research and conclusions.

Summary of the Study

Colleges and universities have long been viewed as stable, safe places that are conducive to learning and the sharing of ideas. However, some institutions have experienced crisis events that have caused a disturbance or disruption of that stable environment. These experiences occur despite false notions that a crisis will not happen on one's own campus and that crises happen only to others. An attitude of denial leaves the institution susceptible to crisis events and unprepared to respond to a crisis. Institutions should prepare by implementing crisis management plans for their campus.

According to Coombs (2007), crisis management plans can prevent or minimize the effects of a crisis event. In recent years, colleges and universities have experienced an increase in crisis events on campus, as well in as the surrounding communities. However, most institutions of higher education still treat crisis events as rare, even though some of them have experienced a crisis that closed or damaged the campus.

There is limited research addressing crisis management in higher education. Most of the extant literature comes from the field of corporate management. As a result of the limited research, institutions have been left on their own to develop crisis plans.

Thus, many of the plans are written only after a crisis event has occurred. Unfortunately, this has become the norm for crisis management in higher education.

Institutions of higher education have taken a reactive posture that has produced an environment that is generally unequipped and ill prepared to respond to either man-made or natural crisis events. These institutions must take the initiative to develop an all-hazards crisis management plan for their campuses. This need for further research, knowledge, and information on developing crisis management plans in higher education was the focus for the current study.

Purpose of the Study

The intent of this study was to explore the developmental process that institutions of higher education undergo subsequent to a crisis event on campus and the impact of these processes on the creation of crisis management plans. Through the use of qualitative methods that included interviewing, data were collected to determine how colleges and universities learn and develop after a crisis event on their campus.

Research Questions

To provide context on how institutions learn and develop after a crisis event, the researcher examined literature about crisis management in corporate America and higher education. Five questions were developed based on the literature review:

1. In what way does higher education define and address crisis events on campuses?
2. How do/have institutions of higher education learned from a crisis event (i.e. man made and natural)?

3. How does learning affect the development of crisis management plans?

4. How do institutions implement their plans, once they are developed?

5. How do institutions evaluate their crisis management plans?

Findings Related to the Research Questions

Research Question 1

Research question 1 asked, *In what way does higher education define and address crisis events on campuses?*

Crisis management literature suggests that a comprehensive plan should begin with a clear definition of the term *crisis*. However, the literature supplied only one definition of *crisis* from the perspective of higher education, and even that definition had underpinnings from corporate definitions, with the mere addition of the institutional mission to protect students. According to Hermann (1963), there is no one common definition of crisis. Hermann's assertion was reinforced through data collection in the current study. Data analysis revealed that the participants did not provide a textbook definition for the term *crisis*, nor were they able to cite their institution's definition of the term. Thus, one of the themes that emerged from the data analysis was conflicting definitions of crisis. Interviewees from TU defined crisis as an "unplanned event" or "something that is going to do physical harm to our buildings or to our students that is going to get in the way of their academic progress." Interviewees from MSU defined crisis as "an unexpected kind of thing," "an adverse situation or major disturbance," "a significant event that has a sustained impact on a culture or a community," and "a

smaller incident." As illustrated by the data, the varying definitions for the term *crisis* differed based on the type of crisis and the institutional agent defining the term.

In the literature, crisis, although not commonly defined, is often viewed dualistically. More often than not, crisis is categorized in terms of man-made or natural disasters (Coombs, 2007; Mitroff et al., 2006; Seeger et al., 2005). Whether the crisis is man made or natural, the dualistic framing of crisis often neglects to explicate the varying forms of crisis that can occur in any given situation. Despite the clear distinction between man-made and natural disasters as a form of crisis, no participants in this study differentiated crisis in terms of man-made or natural disaster. Rather, participants defined crisis in terms of "effects to the institution as opposed to the crisis event itself." While some participants broadly defined crisis in terms of an "unexpected" or "unplanned" event, most emphasized how such an event would impact student academic progress and even acknowledged the possibility of physical damage to the university. Such assertions suggest that crisis is the outcome of the event rather than the event. For instance, references to possible physical damage to the institution implied that destruction to buildings would hinder progress by students (i.e., if buildings are damaged, students are not able to attend class, which affects their academic progress). Analysis of the data revealed that the definition of the term given by the agents of the institutions differed from those found in the literature, which would suggest that agents of universities are more apt to define crisis in terms of effects or the aftermath rather than the crisis event itself.

Data analysis revealed that the conflicting definitions of crisis are not limited to the general definition of what a crisis entails or the categorization (man made or natural) that is found in the literature. Rather, definition of the term is further complicated when one takes into account *who* defines the term. In this study, various agents of the two selected universities were interviewed to gain knowledge about how institutions learn and develop subsequent to a crisis event on campus. Interviewees included the VPSA, dean of students, director of residence life, and police chief. Responses from each agent conceptualized the term differently. For instance, the dean of students defined crisis as "anything that gets in the way of academic progress," and the police chiefs labeled crisis as "a major disturbance" or "an unanticipated kind of thing." Moreover, the directors of residence life characterized crisis as "a significant event that has sustained impact on a culture or a community" or as "anytime there's injury to anyone within the campus community and/or there's significant damage to a university building and/or structure." Despite the commonalities in definitions, differences in how the term was characterized were evident. While police chiefs focused on the actual event, the deans of students defined crisis as an event that hinders academic progress.

Analysis of interview data suggests that conflicting definitions of crisis are often complicated when taking into account *who* defines the term. Whereas the literature defines crisis in general terms and with regard to the type of event (i.e., man made or natural), researchers have failed to accept definitions of the term from agents within the university. Thus, different members of the university are more apt to define the term in relation to the capacity in which they serve their institution. The dean of students, for

instance, *should* be mostly concerned about students and their academic progress—hence, the definition of crisis *reflects* the responsibilities of this position. As illustrated by the data, the definition of crisis varies from agent to agent. This suggests that definitions of crisis should not only reflect the meaning of the term from those outside of the university but also should reflect meaning from those who work, in various capacities, *within* various levels of the university as well.

Research Question 2

Research question 2 asked, *How do/have institutions of higher education learn/learned from a crisis event (i.e., man made and natural)?*

A campus plan should address the five phases of crisis management: (a) mitigation, (b) planning, (c) response, (d) recovery, and (e) lessons learned. *Mitigation* refers to how institutions minimize the effects of the crisis or their vulnerability to a crisis. *Planning* refers to the creation of a framework that sets up the stage for a response to crisis. *Response* refers to the actual response to a crisis. *Recovery* refers to the steps that occur after a crisis in order to return the institution back to a stable environment. *Lessons learned* refers to what went wrong and what did not work in their response to the crisis. Hence, campus crisis plans, innately, should promote continuous learning prior to, during, and after a crisis event.

The notion that learning is continuous is supported by the literature (Wang, 2008). Prior to the occurrence of a crisis, institutional agents should possess knowledge regarding how to respond to a crisis. Such knowledge is gained through training and debriefing about previous and/or anticipated crisis events that might occur on campus.

According to a participant at MSU, training should include rehearsals. Rehearsals, in essence, allow learning to take place over an extended period of time. As a result, rehearsals should be conducted continuously to assure that institutional response is fluid and is remembered by all who would respond to a crisis event. In order to respond effectively to a crisis event, preparation, through training, is necessary. More important, training should be shaped to fit the needs, resources, and location of individual institutions. For example, some institutions are situated in geographic locations that are prone to earthquakes; in those cases, campus crisis plans and training would include a protocol for responding to earthquake disasters. However, institutions that are not susceptible to earthquakes do not have to include training related to this type of natural disaster.

In addition to practicing contingency plans, the purpose of training is also to identify weaknesses in the current plan when it is applied to a scenario or crisis event. For instance, an agent from one of the institutions reported that the institution "envisions an actual crisis event as training and follows the same protocols for training and real-life crisis events." Training of this nature suggests that university responses must be consistent and swift in times of crisis. Sometimes training leads to reconfiguring the current plan based on discovered weaknesses. Corporate crisis management literature suggests that learning is a continuous process for an organization (Wang, 2008). Through data analysis, learning before, during, and after crisis events was evident. After any training or actual crisis event occurs, debriefing should be conducted as a means to

create dialogue that assesses the strengths and weaknesses of a response. As a result, debriefing may lead to further training.

A participant from TU indicated that, "for this debriefing, it allowed the administrators to discuss the daily issues and to follow up on that was being done in preparing to reopen the institution." In order to be prepared to respond to a crisis event on campus, institutional agents should be willing to acknowledge the effectiveness or lack of effectiveness of their response to any crisis. After training and crisis events, there should be a form of discussion or debriefing to discuss what aspects of the response either worked or needed improvement. The goal of debriefing is not to place blame but to discuss the crisis response in a manner that will prepare the institution for the next event. Debriefing can serve as an opportunity to communicate issues to all parties who are involved in the crisis response. Most important, the debriefings should be written into the crisis management plan as a mechanism to ensure accountability that institutional agents will engage in conversations about their response to a crisis.

Data analysis revealed that not all key administrators are involved in training and debriefing sessions. According to one participant from TU, "If these trainings are going on, I am not involved in them." This would suggest a lack of communication between institutional agents and administrators. However, this participant further disclosed, "I would just take my lead from the Vice President of Student Affairs." Waiting to take the lead from others suggests that response to the crisis is reactive. In essence, institutional agents should have an understanding of their roles and responsibilities of what is expected of them if, and when, a crisis occurs. On the contrary, a participant from MSU

indicated that "everyone needs to know the plan and practice the plan because it would allow a swift response." In this case, knowing roles and responsibilities before a crisis event occurs allows the institution, as well as its agents, to respond in a more precise and swift manner. Precise and swift response may reduce loss of life and damage to property.

Thus, training and debriefings are important to the crisis management learning process for institutions. As evident from the data, the institution that employed training and debriefing sessions was more proactive and was better prepared to respond to a crisis. The other institution in this study did not seem to have any proactive measures in place to address or re-assess crisis events. This situation is probably reflective of the situation in many other institutions of higher education: some are prepared to handle the occurrence of crisis adequately and effectively, but some are not. This further suggests that continuous learning is necessary if universities wish to respond precisely and swiftly to crisis events. Such learning processes should be written into the campus plan to provide a fluid process to evaluate what is working and what is not working in terms of the response to a crisis.

Research Question 3

Research question 3 asked, *How does learning affect the development of crisis management plans?*

The institutional response to a crisis is critical for the protection of students, faculty, and staff, as well as the institution. Due to the continuous learning that takes place after a crisis, learning has occurred when the crisis management plan is retooled or reconfigured. Learning also occurs through development of new programs or offices.

The notion of reconfiguring or retooling has a direct relation to the development of the campus crisis management plan. Other components of campus plans that could be altered include the allocation of resources, responding personnel, and leadership roles and responsibilities during a crisis event. According to a participant from TU, "That doesn't mean that you have to go back and go away from it completely. But certain things may or may not work." Changes to the initial plan might not always mean that major revisions or minor adjustments are needed. However, if the plan has to be completely reconfigured or retooled, the plan was not initially well designed.

Training with the plan before a crisis event occurs can uncover weaknesses that should be addressed. During the debriefings, institutional agents discuss various aspects of the plan (e.g., personnel response, use of resources, resource allocation) that were needed during and after a crisis event. For example, an important aspect of the reconfiguration of a campus crisis management plan is how to deal with the media. One of the first to respond to a crisis even on campus is the media. The media can play a critical role in broadcasting information immediately and over a large area (Seymour & Moore, 2000). However, the media can also hinder crisis management efforts or cause additional crises. Failure of the media to provide accurate information could lead to other issues. For instance, advising the media that the campus is safe or the crisis is under control when the crisis is still occurring can lead to a negative reputation for the institution and its agents who supplied that information. The media can be either an advocate or an enemy. Disseminating accurate information about a crisis in a timely manner is an important component of reconfiguring a campus crisis management plan.

According to Catullo et al. (2009), many colleges and universities are moving from a reactive stance to a proactive posture in crisis management planning on campus. This proactive notion is evident, according to a participant from MSU: "If you're not proactive, if you're just trying to shoot from the hip on this stuff, and it's a major situation, and you're in a huge media market, you're going to get eaten alive."

Currently, many colleges and universities do not have a crisis management plan in place (Coombs, 2007; Mitroff et al., 2006). Institutions that do not have a campus crisis management plan or institutions whose agents do not have a clear understanding of the plan will be limited in their responses to common sense or mere luck. Such dependence on common sense or luck is reactive and could lead to intensification or worsening of the campus reaction to the crisis. Data analysis in the current study revealed that the "use of luck would be from a personal perspective." This would suggest that agents might not follow a crisis plan, responding only with on-the-spot personal judgment, generally based on the agent's personal experience with crisis.

Of course, in any emergency situation, common sense plays a role in response. One institutional agent stated, "We have policy books and we have procedures, but when it comes down to it, it's common sense in my mind." The presence of a carefully designed crisis management plan does not prevent agents from applying personal judgment in any crisis event. Still, the application of personal judgment by a large number of agents increases the risk that some of those judgments will be ineffective or even dangerous. According to a participant from MSU, "I like the term common sense,

but it's unfortunate that the time that we refer to common sense is generally in uncommon situations."

Regardless of the range of responses, from strict adherence to the prepared plan to personal judgment by institutional agents, the institutional agents must learn through training and experience what path to follow. As institutions experience crisis events, they can learn and thereby improve their reactions for future events. Learning occurs when the institution reviews its experience, as well as the experience of other institutions, reviewing both successes and failures and applying that learning in the formation or revision of the crisis management plan (Seeger et al., 2005).

Research Question 4

Research question 4 asked, *How do institutions implement their plans, once they are developed?*

The crisis management literature suggests that organizations should plan carefully for a crisis. The federal government takes that concept a step further by indicating that plans should be based on an all-hazards approach that addresses all forms and types of crisis events, including natural events (e.g., weather) and man-made events (active shooter, terrorist chemical spill). Proper planning allows administrators to be proactive in addressing a crisis prior to, during, and after the event. All administrators and responders should have a clear understanding of their roles and responsibilities according to the plan.

Any campus plan should be tested for its potential effectiveness through training and practice. The plan should be comprehensive and flexible enough to adjust to various

types of crisis events. The literature indicates that many institutions do not have a plan that is flexible and comprehensive (Catullo et al., 2009; Keel, 2008; Mitroff et al., 2006). Flexibility is critical to planning for and responding to a crisis.

The concept of being "flexible" and the ability to adjust to whatever transpires during a crisis were important to all participants in this study. Most administrators or institutions face a crisis event with little or no experience in such matters. Therefore, it is likely that they will undergo a "trial by fire" and apply common sense in their responses. Whatever the level of experience, training, or planning, flexibility is likely to be the key to an appropriate response to the crisis. In essence, according to one institutional agent, "Flexibility has to be in the plan itself and within the staff." In order to instill the concept of being flexible in times of crisis, training must be implemented to facilitate flexibility. Flexibility in a crisis is the ability to solve problems quickly and effectively according to the specific situation at the moment. One aspect of a crisis event can lead to other consequences. For example, a fire in a laboratory could cause the entire building to be offline and unusable, which could stop federally funded research and lead to issues with the government and the researcher if the project is not completed on time. Proper planning may minimize this type of risk.

The actual institutional response to a crisis event is just as important as the crisis management plan. Given that many institutions have not experienced crisis events, a carefully developed plan allows the institution and administrators to operate within a specific set of parameters, providing swift and precise response to the crisis. The plan

stipulates the roles of each stakeholder in the crisis event and how each will communicate during the crisis.

Developing a plan is not the end of planning. The plan must be available to all stakeholders and the plan must be reviewed and updated, if necessary, at least annually. Many institutions do not have a written plan, or faculty and staff may not be aware of the plan or how to obtain a copy of it. Institutions should prepare a written crisis management plan that is precise in detail but inherently flexible in nature, make it available to all stakeholders, and review the plan at least annually.

Research Question 5

Research question 5 asked, *How do institutions evaluate their crisis management plans?*

There is no formal way to test and evaluate a campus crisis management plan, at least, not without an actual crisis. However, the most appropriate evaluation for a campus plan is how the institution utilizes the plan and how effective the plan is during the response to a crisis. First, the crisis management plan can be evaluated during training and drills. Second, evaluation occurs during the actual crisis event. Third, the plan is evaluated after the crisis, including identification of effective and ineffective elements of the plan.

Institutions can evaluate their plans holistically through OL and OD. OL is learning that has an influence that originated from history or past experience and that affects the current routine of the organization (Levitt & March, 1988). Four constructs are utilized in OL: knowledge acquisition, information distribution, information

interpretation, and organizational memory (Huber, 1991). Knowledge acquisition is the process by which knowledge is obtained. Information distribution occurs when this new knowledge is passed on to others in the organization or other institutional agents. Commonalities should resonate from the knowledge to lead to organizational memory.

Examining the experiences and responses of other institutions could assist in developing a comprehensive plan. For example, resources can be limited during and after a crisis event. One institutional agent reported, "The challenge that we find is that during each crisis the resources become very scarce." Planning can ensure that resources are allocated effectively. Another institutional agent indicated, "We are self-sufficient because we have dealt with the possibility that we would have multiple casualties and no medical emergency response coming from someplace else or limited emergency response coming from somewhere else before." Despite careful planning, some institutions will not be able to secure adequate resources on their own and will have to depend on mutual aid agreements with outside organizations and other institutions. These agreements should outline the needed resources for the institution and for the outside agencies. Thus, OL is critical to the long-term development and evaluation of the campus crisis management plan.

After an institution has utilized the OL concepts and learned how they should be responding to crisis or what should be in their campus plan, it is important to evaluate the long-term effects of the plan. Such long-term analysis is done through OD, which is the process to enhance the effectiveness of an organization and the well-being of its members through planned interventions (Werner & DeSimone, 2009). For OD to be

effective, there must be a transformation or change that can be observed over a long period of time. Therefore, the knowledge that is acquired in evaluating campus crisis plans based on previous crisis events could lead to changes in behavior regarding response to a crisis event. In essence, when institutional agents learn from other crisis events, they learn what a crisis plan should look like, in addition how to respond to a crisis using the plan. Institutional agents learn that they must be flexible and may be called on to improvise during a crisis event. Training could facilitate the skills needed to improvise in response to a crisis. OD generally occurs in the form of learning to prepare for, mitigate, respond to, and recover from a crisis event. In fact, these forms become the basic crisis management phases. The overarching purpose of a campus crisis management plan should be to address each of these phases. This development can also serve as a method of evaluating the campus plan.

Assertions by participants and analysis of data suggest that evaluation of the campus crisis management plan is an ongoing process, much like learning. By examining previous crisis events, institutions continue to learn and restructure current crisis management plans through OL and OD. Training and debriefing can assist institutions to reconfigure or retool the plan to address exposed weaknesses. Therefore, institutions can take OL and historical events to guide their design of plans and use OD to ensure long-term effectiveness of the plan.

Relation to Theoretical Framework

Chaos theory was utilized as the theoretical framework for this study. Chaos theory provides a lens to examine the large complex system known as higher education

(Murphy, 1996; Seeger et al., 2005). Chaos theory contains seven tenets: nonlinear, feedback, phase change, strange attractors, scale, fractal, and self-organization. In essence, chaos theory is contrary to the notion of chaos in that it attempts to return stability to a system. The findings from analysis of data for this study are examined through this theoretical framework.

Nonlinear

This study established a linkage with the chaos theory tenet *nonlinear*. Crisis events are unpredictable, unanticipated, unexpected, and unplanned; they cause major disturbances. The nonlinear tenet is also apparent in how institutional agents define the term *crisis*. For instance, one institutional agent indicated that "society plays a major role in how the term crisis is defined." The definition depends on who is defining the term, but the definition generally reflects the definer's experiences. One participant defined crisis as "an unanticipated kind of thing." In essence, these views support the concept of a nonlinear system that can result in a wide range of reactions.

The response to a crisis is nonlinear, as well. The use of luck or common sense is a nonlinear response to a crisis event. Crisis events do not follow a straight path; they behave in a nonlinear fashion. For example, a natural crisis such as a hurricane may lead to minor property damage and flooding on the campus, or it may result in complete destruction of campus buildings and even death. Each crisis can involve its own issues during and after the event. In summary, the findings indicate that the salient issues of crisis events and responses to the event are nonlinear and dynamic in nature.

Feedback

It is the nature of a system to attempt to maintain a normal or stable state in a chaotic environment. Deviation from this norm may require corrective action. The corrective action of an educational institution during a crisis event is its attempt to return the campus to a normal or stable environment. The primary intent of the institution is to protect its stakeholders through application of the campus crisis management plan. The second goal is to return the campus to a stable environment by reopening the campus for normal operations. Such efforts require goals that are realistic and feasible. The means to achieve these goals are spelled out in detail in crisis management plans, but institutional agents may be called on to make adjustments to the plan during the crisis event. The goal of the design of a crisis management plan is to mitigate the effects of a crisis by responding quickly and effectively so the institution can recover from the event.

Phase Change

In a chaotic environment, phase changes can occur suddenly and change the order of the system to the point that it may not look like the original system. After a crisis event, according to this theory, there may be signs that changes have taken place. Such changes can lead to reconfiguring or retooling the crisis management plan. This notion was apparent through the data analysis process. As one participant remarked, "The procedure may be good, but just the way it's applied may not have actually worked the way you wanted it to. Or you probably could apply it differently to get a different outcome." When a campus plan is applied to a crisis, the intent is for the plan to work as designed; however, the plan may not necessarily address all issues during the crisis.

Therefore, the crisis has caused a change to occur and the institution is not the same as it was before the crisis.

Strange Attractors

The chaos theory tenet *strange attractors* helped to explain the results of data analysis. In a crisis event, outcomes are not known and cannot be predicted but they can be contained. In relation to a crisis event on campus, leadership plays a critical role in the outcomes. The concept of strange attractors can guide a crisis management leader in trying to make sense of a chaotic crisis event and can set the tone for the response. A leader who is flexible and able to adjust to the crisis event can contain the event to be contained by selecting appropriate responses. Strange attractors create new order in an attempt to return the system to a stable environment.

Scale

The *scale* tenet explains the distance from which the system is viewed. In a crisis situation, the institutional agent's position determines the agent's view of the crisis and the responses that the agent will make. A complete picture of the institutional response to a crisis requires understanding of the roles and responsibilities of the members of the leadership team. Institutional agents should understand that "everyone has a role, everyone has a purpose." At the same time, leaders must be flexible and active participants. According to a participant from MSU, "You will hear a leader say that we need to stay the course, [but] if the course that you are staying is not [the correct course], you need to address that and alter it." To make critical decisions, leaders should

have a holistic view of the crisis and the range of possible responses. A view that is too "short" could lead to tunnel vision and some issues could go unnoticed.

Fractal

The *fractal* tenet allows for comparison of patterns to reveal the underlying order of a chaotic system. Understanding the formation of a crisis event could lead to a better response to the event. The notion of understanding the underlying order of the higher education system would suggest that a campus crisis reveals a signal or pattern before it occurs. An example of patterns on campus would be the intent to provide a safe environment that is conducive for students to learn. Attention to the campus safety could be the reason for the statement from one institutional agent: "The biggest thing is the emphasis that we put on safety." The underlying system of a crisis management plan is the safety and security of the institution and its stakeholders.

Self-Organization/Self-Renewal

In chaos theory, the tenet of *self-organization and self-renewal* would suggest that a chaotic system could take over past experiences and form new patterns to address a crisis. Through self-renewal, training would take over old crisis events and allow the institution to develop new ways to address the crisis in preparation for the next crisis event on campus. Self-organization would provide insight to start new programs as a result of learning what the system has done in response to the crisis. Corporate crisis management literature suggests that learning is a continuous process for an organization (Wang, 2008). It was evident in the interviews that these institutions had learned from crisis events on other campuses, as well as their own previous crisis events. A

significant finding of this study is that learning occurs before, during, and after the crisis event.

Implications of the Study

This study was unique in obtaining the lived experiences of college and university administrators who had experienced a crisis event on their respective campuses. Much of the research that deals with crisis management relates to corporate management rather than to higher education. Much of the research on crisis management in higher education is driven by quantitative data that do not highlight the tacit knowledge and the lived experiences of the people who are actually involved in crisis management processes. It was the intent of the current dissertation research study to fill the current gap in knowledge related to crisis management on the campus of the higher education institution.

Crisis management is a new and evolving field of study, particularly as it is discussed from a higher education perspective. Higher education institutions offer only a few degree programs in crisis management, but the number of certification programs is increasing. Savannah State University is the only historically Black college or university in the nation with a crisis management undergraduate degree program.

With this increase in educational preparation should come an increase in discussion of crisis management issues on college and university campuses. Therefore, this study was relevant to higher education and student affairs programs nationwide. A review of the crisis leadership literature shows that decision-making skills that are required in crisis events are clearly different from those that are used in normal

leadership circumstances. Higher education administrators should be furnished tools to plan, lead, and respond to a crisis. Anything less could be counterproductive and potentially detrimental.

Based on the review of literature and the data produced through interviews in this study, six recommendations are presented.

1. *Crisis management team leaders should gain a greater understanding and knowledge of the NRF.* This document is the key to crisis management for local emergency management personnel, but institutional administrators should have knowledge that this document exists and understand the purpose of the document (Zdziarski, 2006). The NRF espouses five key principles that leaders should know and understand specifically: engaged partnerships, tiered response, flexible and adaptable operational capabilities, unity of efforts through unified command, and readiness to act (U.S. DHS, 2008b). Campus leaders should actively seek and forge partnerships by developing shared goals and aligning their capabilities at the federal, state, and local government levels. Tiered responses to a crisis event on campus should be handled locally. As the scope, size, and complexity of the event changes, so should the institutions' crisis management plan. Therefore, the campus plan should be flexible and adaptable to the crisis event. The institution should incorporate a unified command design that delineates roles and responsibilities of each responding organization and institutional department.

An effective response depends on the parties' readiness to respond to a crisis on campus. This knowledge would be gained through training and education.

Unfortunately, many student affairs and higher education administration degree programs do not discuss crisis management or include it in the curriculum. Graduates from these programs generally come to their positions with little or no experience or training in crisis management. It is dangerous for these leaders to learn crisis management "on the job." Discussion of crisis management should be conducted within these student affairs programs, as well as within the various student affairs departments, since many student affairs practitioners or professionals come from and have a variety of knowledge and expertise from other disciplines (Dungy, 2003). One participant remarked, "Every single person in this department is trained in active shooter response, not because I expect to have one everyday but because if we do, if that crisis does occur, then you're prepared for it." In essence, crisis management training within the departments should be proactive, addressing the phases of a crisis event and specifically pointing to key mitigation and response phases. This training can be conducted through tabletop exercises or scenario-based training (SBT). Tabletop exercises are the less expensive of the two forms of training because the training can be done in a single room; each scenario is played out and discussed throughout the exercise. SBT is labor intensive and requires extensive resources of equipment, location, and personnel. However, both SBT and tabletop exercises can be instrumental in training and preparing institutional leaders to handle crisis events.

2. *Institutions should strive to be as self-sufficient as possible.* In times of crisis, resources may be very limited. This could be a major problem when the institution is called on to respond to a crisis on campus. Each institution should inventory its

resources carefully and review the possibilities for cooperative arrangements for provision of resources by outside agencies. Collaboration is required in dealing with hazards and disasters through crisis management and emergency management in an organization (Waugh & Streib, 2006). Resources include personnel, equipment, and safe evacuation locations. Agreements should be made between the institution and the regulating body that controls particular resources. Such agreements, prior to the crisis, will greatly reduce the time spent in locating and accessing necessary resources. These agreements will allow quick and precise response to a crisis event. The institutional response should mirror what one participant referred to as "self-sufficient." While most institutions are self-sufficient to a degree, in times of major crisis events on campus, outside agencies and outside resources should be available to respond and assist the institution.

3. *Crisis management teams should train on a regular basis*. Training is critical to response during a crisis. The principle of repeated training is the same as in muscle memory: the more times a muscle is exercised, the more familiar it becomes with the movement, which eventually becomes instinctual. This principle applies in training for a crisis event: The more training before a crisis, the faster and more precise the response will be during a crisis event. Trained responders would not have to wait for guidance or instructions during the critical first few moments of a crisis event; they would know what to do and how to do it because they had been trained and prepared. A participant reported "Every single person in this department is trained in active shooter response, not because I expect to have one everyday but because if we do, if that crisis does occur,

then you're prepared for it." Through training, leaders and crisis management teams learn to maintain situation awareness, which is developed as the institution continuously monitors sources of information about possible incidents as well as resources (Fink, 1986; Wooten & James, 2008). Regular training (tabletop exercises or SBT) is critical to effective preparation for the next campus crisis.

4. *Each higher education institution should have a comprehensive crisis management plan.* Many institutions say that they have plans but no one knows where the plans are or how to gain access to them. For example, one institutional agent indicated, "I've looked through the plan because I remember proofreading it. I don't remember it." This agent was not able to locate the plan online through the institution's website. Institutions with plans should make sure that all stakeholders have access to the plans. Any institution without a plan in place should look to other institutions and consider what parts of those plans could be applicable to their institution. Many institutions take other institutions' plans and use them with little adaptation; others require extensive revision to be effective on a particular campus. However, using other institutions' plans as a guide to shape a plan could be very helpful. Institutions must recognize that there is no one-size-fits-all crisis management plan (Smits & Ally, 2003) Moreover, a plan is simply one piece of the puzzle; the plan must be reviewed and evaluated through formal training and discussion.

Each college and university has a unique set of available resources, depending on the size, location, and purpose of the institution. Each crisis management team should be fully aware of its resources and limitations. Every stakeholder in the institution

should have a current copy of the institution's crisis management plan. The plan should follow the response protocol outlined in the NRF (Figure 3). This response process has four key actions: (a) gain and maintain situational awareness, (b) activate and deploy key resources, (c) effectively coordinate responses, and (d) demobilize.

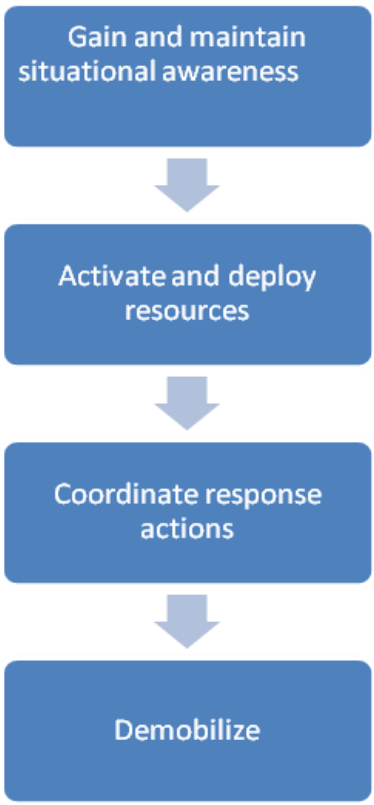

Figure 3. The response process. From *National Response Framework,* by U.S. Department of Homeland Security, 2008b (p. 32), retrieved from http://www.fema.gov/pdf/emergency/nrf/nrf-core.pdf

Situational awareness involves a continuous monitoring of the crisis event from all sources of information, including stakeholders, first responders, and other key officials. The next response would be activation and the deployment of resources. Identifying the crisis event and knowing what resources the administrators would need

and their access to those resources is critical to activating and deploying them during a crisis event. Coordinating response occurs through preassigned roles and responsibilities. These roles and responsibilities are articulated in the campus crisis management plan. Demobilization is the process in which resources are returned to their original locations or personnel return to their original roles.

5. *Institutions should have an Office of Emergency Management Planning.* Despite the reality that many institutions of higher education have limited financial resources and personnel, having an office of emergency management planning (OEM) on campus would be critical to the response to a campus crisis. As the focal point, this office would provide coordination, policy making, maintain the campus crisis management plan, contact information, and information gathering and sharing to the public and to all stakeholders (Perry, 2003; Witt, 2007). More importantly, the OEM will establish and provide training opportunities for the campus police as well as the institutions' faculty, staff and students. According to MSU-4, "I have an office of emergency planning on this campus that is unparalleled, and all they do is emergency management and planning." This participant further shared, "most institutions have only one person who works on the institutions plans part-time". As a result, the OEM personnel would allow for the institutions to maintain a current campus crisis plan and provide the necessary training to the institutions faculty, staff and students.

6. *Institutions should be prepared for accidents that could turn into crisis events*. Even though this study did not examine accidents, a thorough data analysis enabled this notion to be developed. Institutions should consider accidents that occur on or in the

surrounding communities and more specifically, how those accidents could affect the institution. Accidents are the results of an interaction of multiple failures and those failures subsequently turn into a crisis when they interact (Perrow, 1984; Charles, 2000). Essentially, when additional factors interact with a normal accident then a crisis may arise. Nonetheless, normal accidents (Perrow, 1984) are common and will, more often than not, occur on or around college and university campuses. An example of an accident is a train derailment near the institution; however, a crisis may occur if the train cars contain toxic chemicals and those chemicals have the potential to leak out or explode. According to TU-1 and TU-3, they are very concerned about the gas refinery that is located near the campus. For the purpose of a campus crisis management plan, should prepare a form of risk assessment to evaluate the risk and vulnerabilities of accidents occurring and turning into a crisis event.

Recommendations for Practice

The following recommendations, based on the findings of this study, are offered to address the needs of campus stakeholders from (a) both a student affairs perspective, and (b) an academic affairs perspective.

Student Affairs

Counseling services. Each institution should have some form of counseling services on campus or have access to outside counseling service agencies. These services can be critical in the recovery phase after a crisis event. These services should be available to all stakeholders (students, faculty, staff, administrators, and parents). These services can focus on emotional or grief counseling, as well as family support, to

serve students and their immediate families. Student affairs practitioners must understand the importance and potential impact of a crisis may have on the student's development, academically, socially, and psychologically. One study participant reported, "Relationship agreements for counselors and things like that have been established. Even our student health insurance has been reworked." Essentially, students should not have to pay for health insurance if they are receiving counseling through the institution stemming from a crisis event on campus. Detailed crisis response plans and protocols should be updated and revised to meet the needs of the entire campus, with attention given to various types of crises. A comprehensive crisis response plan ensures that the physical and emotional safety of the campus is the highest priority (Lindell et al., 2007).

Crisis leadership training. Crisis leadership training would provide top administrators the knowledge and skills necessary to make decisions in times of crisis. This training could facilitate discussion on improving campus crisis management plan. Most important, administrators could gain valuable information about their role and responsibilities during a crisis event. Leadership competencies should be clearly articulated and utilized throughout the phases of a crisis. The training could allow other administrators to learn through experiential learning from other administrators who have experienced crisis events on campus. As one study participant shared, "I've had my experience in the trenches with some smaller type of crisis." The experiences discussed and subsequently utilized by other administrators would help to develop campus

leadership. When administrators and leaders support crisis management, decisions are faster, safer, and more effective (Caywood, 1997).

Academic Affairs

Have a plan. The comprehensive crisis management campus should include management plans for academic affairs. These plans should address the academic needs of all students. One issue that could be addressed is adjustment of class schedules. After the institution has experienced a major crisis event on campus, many of the students may have issues with getting to and from class. The crisis event may have caused students to miss class time. To make that time up, institutions should consider modifying class hours and similar changes, such as allowing more travel time between classes, holding classes on Saturdays, and even holding day classes at night. A committee could discuss what the crisis management plan should look like from an academic affairs perspective. The office of academic affairs should follow the institution's main crisis management plan but must also focus on certain components of the plan to aid students (e.g., changing class schedules or modifying class hours).

Faculty and staff training. Training faculty and staff in crisis management would allow for a swifter and more precise response by administration and first responders. These stakeholders can be critical in response to a crisis because many of them will be on the scene or in proximity to the crisis. Training this group on how to handle the beginning of a crisis event could mitigate damages to property and injuries to people. Faculty and staff could report the event and provide critical information, as well as render aid to those who may need it. The importance of the initial response to a crisis

is the basis for training faculty and staff to handle crisis events. Training should be mandatory and conducted annually, either online or face to face. Providing online training would require fewer financial resources in a more accessible fashion to all faculty and staff. Face-to-face training, while useful, would be more labor intensive because it would require a training facilitator; potential scheduling issues could arise.

Recommendations for Future Research

The results of this study clearly did not answer all questions related to crisis management in institutions of higher education. At least three topics call for future research.

1. It is recommended to conduct qualitative studies that interview academic affairs people at institutions that have experienced crisis events. The research could be focused on how academic affairs personnel respond to a crisis event on campus. In what ways should student affairs personnel work with academic affairs personnel on campus? How can these two units collaborate to respond effectively to the crisis event?

2. It is recommended to conduct qualitative studies to interview personnel from peripheral departments (e.g., secretaries, maintenance personnel, janitors). Research should be completed on how these departments and individuals respond to a crisis event on campus. Because many institutions do not train institutional agents to respond to crisis events, it is vital to provide mandatory training that disseminates information and protocol responses related to crisis events that may occur on campus. What have the secretaries, maintenance personnel, and janitors been trained to do during a crisis event?

3. It is recommended to conduct research on how student affairs education programs address crisis management for future administrators. There is limited research on the topic of crisis management in higher education, and there is very limited training of future student affairs administrators regarding crisis management.

4. It is recommended to conduct research on the effects of crisis on all institutional stakeholders (e.g., parents, students, faculty, and staff). While there is research on the effects of campus crisis in K-12, there is limited research that examines the effects of a crisis from a higher education perspective.

5. It is recommended that research be conducted on policies in higher education related to guns on campus. Several states are close to passing legislation that would allow guns on campuses. Studies should be conducted to identify the possible effects of guns on college and university campuses.

Conclusion

The purpose of this study was to explore how colleges and universities plan for crisis management and how they learn from their experiences during an actual crisis event. Recognizing a crisis event and understanding how a given institution defines *crisis* is basic to understanding how the institution approaches crisis management planning. The first step in crisis management planning is for the stakeholders of the institution to agree on what constitutes a crisis for their institution; leadership has a strong influence on the definition and thus on the response to a crisis.

Institutional leadership plays a critical role in how learning is transferred to institutional crisis management plans and how the institution responds to a crisis event

on campus. It is through learned experiences that leadership deals with the issues that stem from an institutional response to a crisis, as well as the inevitable issues that arise from a crisis event. Data analysis revealed that leadership is critical to crisis management planning and response, specifically leadership roles and responsibilities. Each person in a position of leadership must understand his or her specific role and responsibilities on campus during a crisis event. Many leaders understand their current roles in normal circumstances but have limited knowledge of their roles and responsibilities during a crisis.

The results of this study clearly show that learning is continuous; it does not begin or end in relation to a crisis event. Learning occurs in planning, training, and execution of the response to a crisis event. Both the plan and the leaders who execute it should be flexible to adjust to particular challenges in a crisis.

The institutional response to a crisis event is just as important as the crisis management plan. Given that many institutions have not experienced various crisis events, a carefully developed plan will allow the institution and administrators to operate within a set of parameters, providing a swift and precise response to the crisis. Time has supplied experienced administrators with knowledge of how to address a crisis event, but emerging institutional leaders are not being systematically trained in campus crisis management. Higher education institutions should take advantage of the experience of current leaders and insist on increased crisis management training for new leaders. Experience may be a good teacher, but it is important that new leaders be prepared through training and education to meet their first crisis event on campus.

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