

HEALING TO LEARN AND LEARNING TO HEAL:  
EDUCATION RECOVERY FOLLOWING A NATURAL DISASTER

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## **DEDICATION**

This dissertation is dedicated to those who see in us more than we see in ourselves

Mad inspiration

## ACKNOWLEDGMENTS

I would like to thank my parents who are fans of education and have always supported my educational endeavors. For my dad, I want to be called “Doctor” just like you. For my mom, I want to be generous with support just like you. For my three daughters, you are my motivation every day and you inspire me to leave a path that you or others may follow. I hope you see how precious education is and how fortunate you are to have it at your fingertips.

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## ABSTRACT

Physical destruction of a school and loss of material resources in a natural disaster are potentially traumatic experiences for students and school personnel (Ainsworth & Parkes, 1991). As a result of such destruction, emotional bonds to objects, people, places, and routines are frequently interrupted. When disaster occurs and students cannot immediately return to the pre-disaster learning environment, their academic progress may be compromised. Disaster relief efforts may be largely focused on physiological needs and the replacement of material goods, food, and clothing. There may be minimal focus on the psychological needs of those affected. Students who demonstrate symptoms of mal-coping may be at risk of academic underachievement and not graduating from high school (Cook-Cottone, 2004).

This study uses narrative inquiry to investigate the education recovery of teachers, administrators, and students in a rural Midwestern town seven years after an EF5 tornado destroyed the schools and much of the community. The stories of their educational recoveries are examined through the theoretical lens of place attachment theory. Findings indicated a strong need for students to be reconnected with peers as soon as possible and for school staff members to reestablish daily routines. Recreating the physical environments in which social interactions occurred was instrumental to healing the psychosocial trauma of loss and displacement experienced by students and staff. The storytellers in this narrative highlighted the processes that were critical to making complete education recoveries.

## TABLE OF CONTENTS

Chapter	Page
I. BACKGROUND TO THE STUDY.....	1
State and Federal Action .....	3
School Recovery.....	4
Attachment to Place .....	6
Research Problem .....	8
Theoretical Framework .....	10
Purpose of the Study.....	19
Research Questions.....	21
II. LITERATURE REVIEW.....	22
History of Place Attachment Theory.....	22
Place Attachment Studies.....	24
Psychological Aspects of Place Attachment.....	27
Post Disaster Implications.....	31
Relocation .....	32
Reengage .....	33
School-Based Responses to Meeting Student Needs .....	35
Disaster Response Policy .....	41
III. RESEARCH DESIGN AND METHODOLOGY.....	44
Narrative Inquiry .....	45
Research Site.....	47
Participant Selection.....	48
Data Collection.....	51
Data Analysis .....	54
Research Trustworthiness.....	56
Where Place Attachment Theory and Narrative Inquiry Intersect .....	58

TABLE OF CONTENTS (continued)

Chapter	Page
Ethical Considerations .....	59
Researcher Positionality .....	60
IV. FINDINGS: WELTON STORIES OF EDUCATION RECOVERY .....	63
Introductions to Study Participants .....	63
The Night of the Storm .....	64
After the Storm Passed Through .....	68
One Week Later .....	70
Closure on the School Year .....	74
The Reopening of School in August .....	77
School in Session .....	83
Planning for the New School .....	88
Personal Adversities Continue .....	92
Looking Back on the First Year of School .....	102
What Staff and Students Learned Beyond School .....	106
Feeling Cheated .....	110
Good Things Emerged .....	114
Rebuilt School .....	118
V. DISCUSSION .....	128
Place Attachment .....	130
Connections to Place Prior to the Tornado .....	138
Disruptions to Place Attachment .....	139
Beneficial School Efforts .....	141
School District Oversights .....	143
Implications .....	144
Culture Shift .....	148

TABLE OF CONTENTS (continued)

Chapter	Page
REFERENCES.....	150
APPENDICES.....	158
A. Informed Consent Form.....	159
B. Interview Protocol Staff.....	160
C. Interview Protocol Former Student.....	162

## **CHAPTER 1**

### **BACKGROUND TO THE STUDY**

On Friday, May 4, 2007, an EF5 tornado destroyed nearly 95% of Welton, a small rural town of 1.5 square miles in a Midwestern state. On the Enhanced Fujita scale of tornado intensity, an EF5 tornado is one that has wind speeds of 200 miles per hour or higher and is likely to impose total destruction for most structures in its path (Rice, June 5, 2013). EF5 is the highest rating for a tornado's destructive capacity (Rice, June 5, 2013).

The storm began organizing in the Texas panhandle around 8:00 p.m. that Friday evening. It moved northeast through three Midwestern states. By 9:20 p.m., storm chasers confirmed the development of the tornado. The funnel strengthened as it approached Welton, striking the city at 9:45 p.m. The tornado was 1.7 miles wide and tore a path through the heart of the city, destroying 90% of Welton's homes and nearly all its downtown businesses (Long-term community recovery plan, 2007). This particular funnel was one of 25 tornadoes documented in the outbreak that evening. The tornado which destroyed Welton traveled 22 miles on the ground before it eventually dissipated (National Weather Service, 2014).

First responders worked through the night but the degree of destruction from the tornado could not be seen until the next morning. Sunrise revealed flattened buildings, overturned train cars, hazardous material leaks, and citizens trapped in damaged houses and buildings. Thirteen people were killed and 60 people were injured (Kansas State Historical Society, 2013). Neighboring communities provided temporary shelters and hospital services.

Emergency workers deemed Welton unsafe and ordered the community fully evacuated. A night-time curfew was enacted. The state's National Guard was enlisted to help provide additional security as Welton fell victim to looting. The Federal Emergency Management Agency (FEMA) helped coordinate recovery efforts including working with over 100 Red Cross officials. The state's Governor and President George W. Bush declared Welton a disaster area. The total damage produced by the tornado outbreak generated by the storm cell was \$268 million. The damage sustained by Welton alone amounted to \$153 million (Kansas State Historical Society, 2013).

Following the evacuation, procedures were put into place to facilitate the return of residents into Welton. For instance, the state's Department of Transportation and the state's Highway Patrol established a series of security and information check points. The first and outer most check point for re-entry into the city was staged one mile out. A second check point verified addresses and wrote them on the windshields and the offered of condolences for losses incurred as a result of the storm. A third check point included the distribution of disaster awareness information. The fourth and final check point had responsibility for traffic control (Kansas State Historical Society, 2013). A motorcade of civilians in search of missing family members and scattered belongings moved slowly forward into the ruins of the town. Individuals were overwhelmed to witness the degree of destruction. Where landmarks once stood, no evidence of them existed any longer (Kansas State Historical Society, 2013).

Following the tornado on May 4, 2007, as an immediate response, a decision was made by the school Board of Education (BOE) and school superintendent to establish portable classrooms to start the school year in August 2007. Reconstruction of the former

Welton schools was included in the Long Term Recovery Plan. Further, in accordance with city resolutions, the former Welton schools were rebuilt to meet Leadership in Energy and Environmental Design (LEED) guidelines and function as environmentally efficient and sustainable buildings. The completed schools were renamed Kingston County schools, in hopes that a new name would invite future consolidation with two surrounding communities. The concepts of being progressive and sustainable were incorporated in the Kingston County schools. While school replacement was among the top priorities for the Welton community, the rebuilding of the former Welton schools was but one component of a much larger plan to rebuild the whole community (Long-term community recovery plan, 2007).

### **State and Federal Action**

In August 2007, FEMA activated the Long-Term Community Recovery program which provided state and federal assistance for Welton. Beyond just immediate first responses, program officials coordinated resource and planning services and focused on Welton's long-term recovery goals and guiding principles developed by community leaders and citizens. Those concepts were set forth in a document called the Long-Term Community Recovery Plan (LTCRP) (Long-term community recovery plan, 2007). As explained in the plan, Welton leaders chose to view the disaster as an opportunity to rebuild and improve on the future of the community. With recovery plans in place, Welton was well positioned to build a more vibrant, progressive, and sustainable community. The guiding principle at the heart of the recovery plan was to "keep the things that have made Welton and Kingston County a good place to live, work and own a business, and then

suggest ways to build upon strengths of the community to make it prosperous, appealing, livable, and sustainable” (Long-term community recovery plan, 2007, p. 1).

In December 2007, seven months after Welton’s destruction, and in accordance with the LTCRP, the city council passed a resolution to rebuild all city buildings according to LEED standards, making it the first town in the United States to do so (Long-term community recovery plan, 2007; Welton, 2013). The delay between the events of the tornado and the plans to rebuild caused some angst for community members (Smith & Cartlidge, 2011) The comprehensive plan to rebuild at an all-new level launched Welton toward a promising future ( personal conversation, D. Headrick, July 201).

### **School Recovery**

Welton is in a state which does not require its schools to have emergency preparedness plans (United States Department of Education, 2013). According to the National Association of State Boards of Education (NASBE), many, but not all states, require their schools to have emergency preparedness plans (National Association of School Boards of Education, 2013). The purpose of emergency preparedness plans is to assess an organization’s vulnerabilities and prepare to improve the organization’s capacity to respond. The purpose of efficient response to crises is to mitigate further harm to life and property once a crisis has occurred (King, 2001). While there is no federal law requiring schools to have emergency preparedness plans (United States Department of Education, 2013), FEMA recommends that all schools have site-specific emergency plans (Federal Emergency Management Agency, 2013). FEMA provides guidelines for the contents of those plans.

As witnessed in Welton, natural disasters can occur and destroy schools, interrupting daily routines and learning for students as well as daily business and teaching for staff. Welton is not an isolated example of a town suffering the loss of its schools from weather-related factors. Other examples of natural disasters in the United States that have had significant impact on local school districts and interrupted student learning are Hurricane Katrina, (2005), Hurricane Ike, (2008), the Joplin, Missouri tornado (2011), the Henryville, Indiana tornado (2012), and the Moore, Oklahoma tornado (2013). The number of students exposed to severe weather disasters and trauma has increased substantially and is unlikely to diminish since the U.S. population grows larger with every passing decade. (Jaycox, Morse, Tanielian, & Stein, 2006; Varangis, Skees, & Barnett, 2003).

When a hurricane or a tornado destroys schools, not only are learning materials and learning routines interrupted, social activities are interrupted as well. Typical first responses to the material losses include temporary school relocation and the immediate replacement of necessary supplies (Nastasi, Jayasena, Summerville, & Borja, 2011). When schools are destroyed, residential neighborhoods surrounding the schools are likely to have suffered damage as well. Post-disaster issues affecting students can include displacement from the home, loss of caregivers, and relocation of home and school. In each of these scenarios, a child is faced with re-establishing connections to people, places, and routines, including routines of learning (Nastasi, Overstreet, & Summerville, 2011). When a community has focused on rebuilding new community sites and re-establishing a new daily routine because the old routine is gone, adults and children desiring familiar objects and surroundings may experience varying degrees of frustration (Satterly, 2012; Smith &

Cartlidge, 2011). Welton citizens experienced loss of familiar landmarks, homes, and belongings. Because of the loss of such resources and because of the barriers that exist in replenishing those resources, teachers and students may experience psychological stress which can prolong the recovery of instruction and learning (Hawkins & Maurer, 2011).

Following a disaster, the school can play a key role in the healing process for students. To establish the ever essential sense of safety and security, the very act of returning to school can provide the child with a healing environment along with structure and routine. A person's self-assessment of his or her resources has been shown to predict display of post-disaster distress. If a person feels adequately equipped with critical resources such as water, food, and shelter as well as psychological resources which include mastery of tasks and routines, then that person will be more likely to display less post-disaster distress and demonstrate more security and confidence (Hawkins & Maurer, 2011). Psychological stress can delay the return of teachers and students to school. School personnel are not typically prepared for the long-term after effects of the recovery from natural disasters (Clettenberg, Gentry, Held, & Mock, 2011). Disruptions such as lack of sleep, lack of focus, and depression can pose challenges to school personnel who are not trained to intervene in effective trauma relief. Students can experience traumatic stress and high levels of depression and must be supported with interventions which facilitate mental-health wellness (Clettenberg et al., 2011).

### **Attachment to Place**

Place Attachment is the emotional bond that forms between people and their physical environment (Manzo & Devine-Wright, 2013). Individuals desire familiar objects,

familiar routines, and familiar people. It is a cyclical phenomenon; people desire social connections and people need familiar places and objects to facilitate those social connections. Absent those familiar surroundings, people will recreate places to facilitate their desired social connections.

According to the U. S. Census Bureau (2013), the population of Welton was 778 in 2012, a loss of nearly 500 people since the 2007 tornado when the population was 1,265 (United States Census Bureau, 2013). As powerful as the storm was, the population loss was not due to fatalities. Rather, it was due to other reasons such as citizens moving away and not returning because of insufficient resources, lack of desire, or their jobs no longer existed (Smith & Cartlidge, 2011).

In some cases, a rural area's natural amenities are the reason people stay in that community. In other situations, a lack of community resources is the thing that pushes people away (Tigges, 2006). Many Welton residents chose not to return and rebuild their lives. These individuals did not anticipate reconnecting to their environment and perceived their life would not have the same high quality it once had (Smith & Cartlidge, 2011). In other cases, even given the disruption and displacement, residents' attachment to their community can serve as the primary mechanism for sustaining that community (Tigges, 2006). This was the case for Welton residents who were willing and able to stay and rebuild. In keeping with the community's guiding principle, rebuilding "stronger, better, greener" (Welton, 2013), a compelling group of supporters committed to rebuilding schools and expanding educational opportunities for the students and staff of the schools in Welton (Long-term community recovery plan, 2007).

In recovery operations, a response to replenish material items is both desired and necessary. One significant restoration for students is the reconnection to people and social interactions. In the last few years, the response to each of the tornado scenarios mentioned earlier was different. Whatever knowledge and resources were available in 2007 was different than what was available in 2011, and will be different again in future disasters. Internet connectivity and access plays a significant role. In one way, the technology in place at the time of the disaster plays a role in recovery communication. For example, cell phone and other digital communication were available during the 2008 events of Hurricane Ike (Watson, Loffredo, & McKee, 2011). College students' affected by these events desired immediate communications from their university and found it beneficial to have consistent and up-to-date information about the resumption of classes, the relocation of those classes, and revised expectations for meeting the course requirements. In another example, students in the 2011 events of the Joplin, Missouri tornado re-engaged in the process of school at a mall with nothing more for materials than iPads (A. Besendorfer, personal communication, July 25, 2012). Some students liked the technology platform and others did not (A. Elliott, personal communication, May 1, 2012).

### **Research Problem**

The physical environment is comprised of material objects which facilitate connections to people, places, and routines. The learning environment is comprised of intangible connections to people, places, and routines such as relationships between students, teachers, and others (Blumer, 1980). Physical destruction of a school and loss of material resources in a natural disaster can be a potentially traumatic experience for

students and school personnel (Ainsworth & Parkes, 1991). Attachment to things, people, place, and routine can be interrupted for students and teachers. Familiar routines can be upset. There may be no familiar setting and no familiar learning materials. When disaster occurs and students cannot immediately return to the pre-disaster learning environment, their progress may be slowed or halted and academic growth potentially compromised. Students who demonstrate high levels of mal-coping symptoms and demonstrate symptoms of continued distress may be at risk of under achieving and possibly not graduating from high school at all (Cook-Cottone, 2004).

Post-disaster efforts are largely focused on crisis intervention and stabilization, often with minimal focus on the psychosocial needs of those affected. (Collins, 2009; Nastasi, Jayasena, et al., 2011). When disaster occurs, a community's immediate reaction is to alleviate the physical suffering of the survivors (Collins, 2009; Franks, 2011). Disaster relief efforts typically begin with the replacement of material goods, food, and clothing. Maslow's Hierarchy of Needs, the tiered level of needs humans are intrinsically compelled to satisfy, explains how the fulfillment of the most basic level of needs leads to the motivation of individuals to gratify the next level of needs (Poston, 2009). The five levels of needs defined in the hierarchy are physiological, safety and security, love and belonging, self-esteem, and self-actualization.

Disaster relief efforts focus first on physiological needs which include eating, breathing, water, shelter, and sleep. When the physiological needs are met, individuals seek to fulfill the next level of needs, safety and security which includes health, employment, property, family, and social stability. Fulfillment of safety and security needs

leads to individuals seeking love and belonging which includes family, friendship, intimacy, and social connections. For a school that has been destroyed, replacement of buildings, classrooms, and materials is typically undertaken first so academic instruction can resume as quickly as possible. School leaders are trained and skilled at fostering and sustaining an academic focus for students. However, people's needs to socialize and reconnect within the psychosocial realm are equally as important toward launching individuals toward gratification of the next level of needs and may go unrecognized and unserved.

Because large scale disasters pose long-term psychosocial risks to both students and families, I conducted this research to investigate and address place attachment needs that can facilitate a more complete education recovery (Nastasi, Jayasena, et al., 2011). Maslow's fourth most important need is self-esteem which includes confidence, achievement, respect of others, and the need to be unique (Poston, 2009). The fifth prioritized need is self-actualization. At the self-actualization level, individuals experience morality, creativity, spontaneity, acceptance, purpose, meaning, and inner potential. Place attachment, the emotional bonds that connect people to their familiar surroundings, could be viewed as the common thread linking one of Maslow's needs to the attainment of another.

### **Theoretical Framework**

Place attachments are the emotional bonds that connect people to their familiar surroundings. These connections are a powerful aspect of human life that inform an individual's sense of identity, create meaning in a person's life, facilitate community, and

influence action (Manzo & Devine-Wright, 2013). Attachment plays a central role in the relationships people have with their environment. Place is defined as physical sites, that is, pieces of a built environment where interactions take place (Milligan, 1998). Environment and objects in that environment are given meaning through interactional processes (Milligan, 1998). Place attachment is the emotional link formed by an individual to a physical place that has been given meaning through interactions that have taken place within that particular environment.

What ultimately seems most significant for activating and sustaining positive attachment to place is an interchange and reciprocity of six place processes (Seamon, 2014). These six place attachment processes hold significant potential for better understanding of the place attachment phenomenon. The six processes complement each other to create bond to place to varying degrees of intensity.

The first place attachment process is place interaction. This is defined as the typical happenings in a place. The second place attachment process is place identity. This is the act of an individual adopting that place as a significant part of him or herself. The third place attachment process is place release. This happens to an individual when an unexpected event, positive or negative, occurs and causes that place to lose its appeal to that individual. The fourth place attachment process is place realization. This occurs when place gains appeal and appreciation. The fifth place attachment process is place creation. This is defined as the positive effect experienced when the place is improved and people are active with that place. The sixth and final place attachment process is place intensification. This occurs when the substance, such as aesthetics and affects, that makes

up place is improved in quality and character. All six processes are present in place attachment and contribute to the emotional bonds individuals experience with place (Seamon, 2014).

Physical space is a physical environment in which people live, interact, and engage in activities of varying periods of time and intensity. Physical space becomes place when meaning and value are assigned, constructed by experience (Proshansky, 1974; Williams, Patterson, Roggenbuck, & Watson, 1992). The value of place can be assigned to a chair, a room, a house, a community, or a myriad of examples in between. What originates as undifferentiated space becomes place the more a person gets to know it, has experiences with it, and endows it with value (Williams et al., 1992). Sense of place is often associated with an affective bond between the space and the interaction the individual brings to it. The bond varies in intensity from immediate sensory delight to long-lasting deeply rooted attachment.

Place attachment is comprised of two interwoven attributes: interactional past and interactional potential (Milligan, 1998). It is the activities that have taken place within a boundary that give the place its assigned meaning. Over time, this process creates an interactional past, and when meaning has been assigned, place is transformed into a memory (Milligan, 1998). The specific activities and influences which are expected to happen within those boundaries are called interactive potential. Interactive potential can be interrupted voluntarily or involuntarily. When a disruption takes place such as a natural disaster, causing displacement and interrupted learning, it is loss of a connection to both a past and to a possible future (Milligan, 1998). When the disruption occurs and continuity

is disturbed, it acts to close off a group of past experiences or memories and alters a set of expectations for possible future interactions. When a person moves, is relocated, or displaced, it is an end to one set of experiences or memories linked together through location. The more meaningful the interactions that occur in the new place, the more meaningful the new place will become (Milligan, 1998). This will be important when dislocated students are encouraged to reengage in the learning process within a new school environment.

Attachment to things includes more than just tangible material items (Smith & Cartlidge, 2011). Things can include schools, the school environment, learning, and social routines, as well as people. A student can feel attachment to teachers and peers in addition to objects and routines. Objects are of three types: (a) physical objects, such as chairs, trees, or bicycles, (b) social objects, such as students, priests, a president, a mother, a friend, (c) abstract objects, such as moral principles, philosophical doctrines, or ideas such as justice (Blumer, 1980). A place, the school, is a form of a physical object (Milligan, 1998). Schools are all-inclusive of physical, social, and emotional well-being and can represent a person's first experience at being emotionally connected to a place beyond the home (Bushnell, 1999).

Schools are places where meanings are given based on the social interactions that transpire there. Schools represent more than just material resources and settings for academic achievement. Place attachment supposes there is a connection between material goods and environments to emotional well-being, location orientation, security, and community connectedness. Schools are important places where individuals construct social

reality and sense of place, preserving individual identity while engaging in schooling (Bushnell, 1999). Place attachment theory helps explain why people respond first by replacing and repairing material goods.

The psychological well-being of a student is determined by interactions between the person and the social-cultural environment across time and context (Nastasi, Jayasena, et al., 2011). Contexts relevant to students can be comprised of family, school, peer groups, community, and society. The development of a student's functioning in learning is influenced by the reciprocal interactions within and between these contexts. These influences affect the student's behavioral, affective, and cognitive domains which in turn will influence subsequent interactions in the same and different contexts. Therefore, parents, peers, and teachers are considered to be key agents for intervening and facilitating optimal student development (Nastasi, Jayasena, et al., 2011). Students are not the only ones to have bonds to places and routines. Administrators and community members can also experience attachment to a school and the environment of a school.

Place attachment theory, the application of the understanding that emotional bonds exist between people and their surroundings, helps us to understand what contributes to the development of students' psychosocial well-being and success in the tasks presented by the challenges of school (Manzo & Devine-Wright, 2014; Nastasi, Jayasena, et al., 2011). Replacement and repair of material resources by themselves is not necessarily sufficient to meet the academic needs of students. In addition to the material resources that contribute to restoring basic needs of food, clothing, and shelter, basic needs also include safety and security (Nastasi, Jayasena, et al., 2011). Consideration must be given to psychological

and social implications if education recovery is to have a chance of being complete (Franks, 2011).

New models of disaster responses are moving from a nearly exclusive focus on immediate emergency-based coping to responses focused on the long-term nature of disasters and the lingering after-effects of trauma (Franks, 2011). As a consequence of large scale trauma, many students demonstrate short-term and long-term symptoms of distress (Franks, 2011). Stress symptoms, which can be indicative of Post Traumatic Stress Disorder (PTSD) include avoiding thoughts, feelings, and conversations related to the trauma, withdrawal from social interactions, feelings of detachment from social relationships, diminished interest in significant activities, fear, anger, sadness, inattention, and sleep deprivation (American Psychiatric Association, 2000) These symptoms can interrupt the learning process making it difficult for some students to reengage in the learning process and putting them at risk of academic failure. Emotional connections to objects and routines are significant and can influence efforts to get students and staff reengaged in learning and school. Unless schools are prepared to respond in appropriate ways, students cannot return to the daily routine of learning because familiar school structures no longer exist. New environments and routines in Welton had to be created. Material items and surroundings serve to assist in healing damaged emotional connections and promoting academic engagement by replacing, replicating, and facilitating the building of healthy, new experiences within a setting. In the process of recovery, attributes of physical objects and routines are significant and are important in getting students reconnected with peers and reengaged in social interactions (Milligan, 1998). The

relationship between objects, people, places, and routines in education recovery may be deeper than educators have previously realized.

Place attachment theory illuminates how addressing the rupturing of connections in one category may not address the rupturing of connections in the other. Losses in multiple categories must be addressed in tandem. When a tornado destroys a place, a building, or a town, that place becomes compromised, and the routines and social connections associated with that place are also interrupted. Place attachment is impaired or disrupted as a result of the disaster. Any number of psycho-social symptoms can occur as a consequence of loss or dislocation. Given the replacement of materials and the reestablishment of new environments, there is an expectation that students should be able to reengage in the learning process and pick up where they left off with minimal loss of continuity (Collins, 2009; Hawkins & Maurer, 2011).

Such external repair is often not enough to meet the full range of student needs. School is more than school; it is a complex institution with a complex environment that both influences and is influenced by the physical, social, and emotional well-being of students (Bushnell, 1999). Emotional consequences are both meaningful and long term. Replacing the material objects in a student's life is necessary but not sufficient for every student to return to learning. Meeting students' emotional and mental health needs following an interruption are often underserved (Nastasi, Jayasena, et al., 2011). Students' needs to socialize and reconnect with peers are equally important. Unless these needs are addressed as well, recovery from disaster may be incomplete (Hawkins & Maurer, 2011).

Place attachment affects place-making and displacement, rootedness and belonging, intergroup conflict and civic engagement (Manzo & Devine-Wright, 2013). Displacement is known as an involuntary disruption in place attachments (Milligan, 1998). Displacement is a significant cause of symptoms of distress and disruptions in learning (Clettenberg et al., 2011). Bonds to objects and place may become more apparent after a disruption (Milligan, 1998). In this case, place attachment theory helped to illuminate the importance of these bonds to setting, objects, and routines as individuals attempted to return to pre-disaster levels of educational activity and learning. One community that exemplified these forms of disruption and displacement as a result of a natural disaster was the city of Welton.

By listening to the stories of study participants, I came to better understand the importance of restored social interactions and connections to people. In the case of Hurricane Katrina, human error was cited as having compounded the effects of that natural event (Franks, 2011). Franks saw effective assistance as a key factor in mitigating traumatic symptoms and getting people back on the path to healthy routines, social interactions, progress, and academic success. With insights and information gleaned from the first-hand experiences of others, in this case staff and students of Welton, school personnel and crisis intervention specialists can better plan for effective education recovery.

Literature on place attachment involves information about assessing an individual's feelings and experiences and has not placed these bonds in the larger context in which community planners and decision makers operate. At the same time, community planning

research emphasizes empowerment for citizens through participation and omits consideration for the emotional connections to place (Manzo & Perkins, 2006). Community planners do not usually incorporate the psychological aspect associated with the experiences of place, but community emotions, cognitions, and behaviors can have an impact on community planning and development (Manzo & Perkins, 2006). For Welton citizens who were able to participate in the planning of rebuilding the community, their emotional connections to environments and social interactions with peers had an effect on which buildings and environments were rebuilt and with what priority. At the time of the tornado, Welton had a majority aging population. The need was high for certain retail services such as pharmacies for medical supplies and coffee shops for socializing (Smith & Cartlidge, 2011). Schools were not first on the list of community priorities to be rebuilt (Long-term community recovery plan, 2007).

Little research has been conducted regarding the significance of place attachment in school settings. And, while psychologists who study place attachment and place identity often focus on individual experience, the collective nature of this phenomenon is less frequently studied. Community planners focus on community empowerment and social capital created by aggregates of people. Citizens' participation aids in their feelings of cohesiveness with each other and as a group. Less attention is given to individual experiences related to place attachment where an individual's past experience and emotional connection to a particular environment is significant to the extent it will influence what that individual deems necessary and important. (Manzo & Perkins, 2006).

Long-term recovery efforts addressing students' psychosocial functioning are typically neglected and absent from disaster recovery literature. Such disaster relief efforts have been criticized for failing to address cultural and contextual factors related to reengaging families, reestablishing routines, and identifying benefits gained from the experience (Nastasi, Jayasena, et al., 2011). Targeted programs are necessary to help students identify stressors, supports, and coping strategies relevant to their functioning across the contexts of community, family, peers, and school. (Nastasi, Jayasena, et al., 2011).

One study following Hurricane Katrina researched the significance of post-traumatic stress symptoms in displaced and non-displaced students. The research participants were 636 students at two public schools. The researchers found significantly increased post-traumatic stress symptoms in the group of displaced students over the group of non-displaced students (Blaze & Shwalb, 2009). An inference based on this research suggests that if school personnel had better understood post-traumatic stress symptoms, schools such as those in Welton, which lost 95% of its community resources, would have been more prepared to successfully reengage students in the academic learning process. Because stress symptoms affect academic engagement and put achievement at risk, decreasing the amount of academic disengagement is crucial.

### **Purpose of the Study**

The purpose of this study was to understand what it took for study participants to reestablish social interactions and connections to people and learning in one Midwest community. Through the use of narrative inquiry, I provided study participants, who may

or may not have been traumatized by the experience of destruction, the opportunity to describe what it took to move them toward education recovery. Their descriptions revealed significant emotional connections to their environment (Kramp, 2007). Their perspectives were significant because they provided insight into what is possible and intelligible within a specific social context for others who may one day experience similar conditions of education loss (Chase, 2008). The lived experiences and the meanings of those events can shed light on the healthy recovery of others experiencing destruction and loss of a school. Thus, much was learned about the role school personnel played in the education recovery process for both students and teachers.

This study is heuristic in that it confirmed some existing knowledge about education recovery while extending our own understanding of the phenomenon, thereby leading to discovery of new meaning and additional useful knowledge beyond what was depicted in the literature review. This research can in turn become a teaching device to others who may experience a similar set of circumstances (Merriam, 2009). By allowing the participants to expand upon aspects that were significant in their own education recovery, I hope the information gained from this study will contribute to more intelligent thinking about current and future problems with education recovery.

To generate further understanding about the processes related to education recovery following education loss as a result of a tornado, four overarching research questions were developed. These questions served two functions: they gave focus to the study and guided how the study was conducted (Maxwell, 1998).

## **Research Questions**

1. What emotional bonds to objects, people, places, and routines were in place and developed prior to the tornado?
2. What were the disruptions to education and learning caused by the tornado and the rebuilding of schools and community in the first year after the tornado?
3. What efforts on the part of the Kingston County Schools did staff and students find to be most beneficial in their education recovery?
4. What efforts were overlooked on the part of the Kingston County Schools that might have been beneficial?

## **CHAPTER 2**

### **LITERATURE REVIEW**

The following literature review encompasses further description of place attachment theory, context for the history of destruction within some natural disasters, types of psychological trauma related to weather destruction, and relief responses provided to those affected. Many studies reviewed include psychological effects of disruption. This information is important for the study because it describes attributes of participants' memories from their lived experiences which some participants alluded to.

Much of the available research regarding disaster, trauma, and recovery included information related to both adults and children across a wide variety of settings. To narrow the focus of the literature review, I reviewed literature related to natural disaster as opposed to human error or violence. The phenomenon of natural disaster is caused by forces of nature and has no one to blame. The reviewed settings included communities, schools, homes, and clinical environments. Given the component of trauma experienced by individuals, many of the resources originated in psychology data bases. One study highlighted how little research is available which is a result of consulting with children as opposed to most research which is adult commentary regarding observations of children (Peek & Richardson, 2010). My study includes both.

#### **History of Place Attachment Theory**

In 1974, Proshansky proposed that people may develop attachments to location such as psychological bonds with residence or place. Tuan further described that the meaning of a place and its objects is encapsulated in the experiences of the individual and it is up to

the individual to describe the meaning that place and objects hold (Williams et al., 1992). In 1989, Korpela continued developing place attachment by elaborating on Proshansky's concept of attachments which include psychological bonds to place and routine (Korpela & Hartig, 1996). Korpela linked the concept of place attachments to psychological and environmental self-regulation. The self-regulatory process was what allowed human beings to set goals and manipulate their environments instead of simply reacting to them (Bandura, 1986). To explain this, Korpela argued that the setting and environment not only facilitated the regulation of social interaction, but they were also an important means to creating and maintaining one's self. This means that the setting was important to the individual not only for satisfying explicitly felt behavior or experiential events, but the setting lent itself to be viewed as an essential part of the individual that resulted in strong emotional attachment to a place. These emotional bonds were associated with long-term relationships to places. This was an important development since the sense of place attachment led to creating shared meaning, group identity, and high-quality life experiences (Williams et al., 1992).

In subsequent studies, place attachment was applied to environmental contexts. Those contexts were related to environmental design such as describing attachment to homes, neighborhoods, and landscapes (Low & Altman, 1992). Place attachment also explained attachments at different phases in life such as childhood, the middle years, and later years (Low & Altman). Place attachment theory was often used to explain people's attachment to geography and location. Changes in geography related to sustainable energy developments such as wind farms were considered a disruption to attachment (Devine-

Wright, 2009). Place attachment was a concept of interest for earlier phenomenological scholars with specific interests in environmental behavior issues (Buttimer, 1980). Their analyses were largely focused on emotional experiences and bonds of people with place.

Place attachment theory helps community planners and decision makers understand how individual preferences, perceptions and emotional connections to place can be related to social cohesion, organized participation, and community development (Manzo & Perkins, 2006). Often in community planning processes, attention is given to economic and political aspects of a project. However, the unique qualities, meanings, and experiences of a physical place can play a critical role in the process as well. The thoughts and feelings surrounding place impacts individuals' behaviors and attitudes toward that place (Manzo & Perkins, 2006). Simply sharing a space cannot create desired cohesion, therefore it is instrumental for community planners and decision makers to understand the diverse meanings that places and routines hold to create successful places, which are places to where individuals create emotional connections (Manzo & Perkins, 2006). In the case that there would be conflict in building community and place, it is helpful to understand the emotional relationships to place in order to understand what might be blocking any facilitation or group efforts toward development of place. When community planners and decision makers understand place attachment in this way, conflict is mitigated and community development plans may continue (Manzo & Perkins, 2006).

### **Place Attachment Studies**

The attachment to place and familiar landmarks is the phenomenon described as place attachment theory that has been increasingly researched in recent times (Smith &

Cartlidge, 2011). Proportionately few studies using place attachment have been conducted within the context of schools, school personnel, and students. However, the descriptive context of previous studies that have used place attachment theory have limited practical application and transferability for future studies related to schools, making research findings relevant to multiple audiences and for varied purposes. As place attachment theory has evolved, researchers have suggested that further studies are needed to better understand place attachments and contribute to the research base. In Smith and Cartlidge's study (2011) conducted in Welton following the May, 2007 tornado, it was noted that for retired people to feel comfortable, secure, and connected, they had to be surrounded by identifiable and familiar landmarks. It was vital for retirees to be provided with a dedicated space in which to socialize in order to reinforce and maintain ties. Otherwise, the population was at risk of feeling isolated and discontent, as if the quality of their lives had waned. In the rebuilding process, community planners had initially overlooked any consideration of the types of retail businesses that provided the retirement age population with age-specific products and services such as health care facilities, grocery stores, and pharmacies. The lack of presence of such businesses caused the older population to feel less connected to their community, less self-efficacious, and less independent. The findings of this study inform rebuilding efforts in places experiencing natural destruction by generating an understanding of how the environment and surroundings play important roles in an individual's recovery process. Consideration of a community's demographics will aid in planning for prioritizing what will be rebuilt and in what order.

The details and attributes of a site, whether it is a coffee shop, a school, or a playground, both shape and constrain the possible interactions that can occur in that site as well as the meaning for community members who will eventually be attached to the site (Milligan, 1998). In this regard, it was beneficial to hear how the individuals affected by loss or displacement described what they needed to create place with new social routines and shared experiences. The way in which the detail of a site will shape the potential future experiences stems from the previous routine interactions at that site and suggests what might be expected by community members in the future (Milligan, 1998). Attachment to a specific place is also an attachment to the activity patterns known to have occurred there and anticipated to recur in the future (Milligan, 1998).

A crucial aspect of place attachment is its inevitable disruption whether that disruption is voluntary or involuntary. In the case of attachment, change always involves an experience of loss because past experiences and memories are closed off (Ainsworth & Parkes, 1991; Milligan, 1998). If there is place attachment, there can be loss of attachment, leaving behind that which was familiar. Milligan (1998) noted change brings a set of altered expectations with regard to future interactions. With place attachment theory in an educational setting, the school becomes the place. The people, relationships, routines, and material items also become the place. Place attachment manifests itself differently for teachers and for students (Jaycox et al., 2006). Where strong bonds have been formed, there is likelihood for significant loss.

Strong bonds to place will be disrupted given a change in that place. Students can have strong bonds to a school whether that school has a positive image or a negative image.

One quantitative study conducted in a high school examined the connections between place identity and the positive or negative image of place (Marcouyeux & Fleury-Bahi, 2011). There was a direct relationship between students' perceived positive image of their school with strong place identity. The more positively an individual evaluated his school's image, the higher his reported place attachment. However, some students developed strong place attachments despite negative images of the place. Milligan's (1998) study suggested that even in the light of poor image and negative memories, positive image and positive reflections may result in strong positive interaction potential and expectation for the future. Milligan's study was not related to destruction of a school. In the case of Welton, one negative aspect of the community prior to the storm was that as a result of it being small, rural, and resembling many other small towns, it was experiencing a slow decline toward non-existence.

### **Psychological Aspects of Place Attachment**

In cases where natural disasters destroy a place, a community, or a school, attachments to people, environments, objects, and routines may be interrupted. As briefly described above, an interruption in attachment can cause negative implications such as feelings of loss. The following topics relate to negative psychological effects which might be endured by those experiencing the natural destruction of place.

Traumatic experiences have been defined as extremely stressful occurrences usually accompanied by a threat of injury or death to the person who experiences those occurrences or to others closely associated with that person (Jaycox et al., 2006). In schools, trauma often leads to displays of symptoms likely to be displayed by students who have

experienced such stress. Symptoms can include anxiety, nervousness, sadness, and acting out. Classroom performance can decline because of an inability to concentrate, flashbacks, preoccupation with the trauma, and a desire to avoid school and other social settings. Additionally, school performance and functioning can be affected by the development of other behavioral and emotional problems such as substance abuse, aggression, social dysfunction, and depression.

Disasters represent one form of traumatic experience which may cause symptoms of distress. Disasters are further distinguished between traumatic experiences which have human causes such as violence or human error from those that have natural causes such as tornadoes or hurricanes (Franks, 2011; Lee & Blanchard, 2012). This study particularly considered traumatic experiences and destruction of schools caused by tornadoes.

Because children understand the world differently than adults, K-12 students are likely to respond to disaster differently than adults. Primary and secondary students manage emotional stress in age-specific ways (Jaycox et al., 2006). Preschool children tend to act younger than they did before the onset of the trauma. Elementary students typically complain of physical ailments. They may demonstrate heightened anger and irritability, attendance issues, and poor homework performance. Secondary students are likely to show increased absences from school, a greater incidence of acting-out behaviors, a decline in school performance, and more trouble with interpersonal relationships (Jaycox et al., 2006).

As those affected by a traumatic event begin to rebuild and recover, some symptoms may subside (Jaycox et al., 2006). However, the very challenge of establishing new routine

can trigger heightened anxiety and emotional difficulty. Students often display a wide range of symptoms but overall, studies show the effects of psychological trauma on mental health are mainly those described to be the symptoms of PTSD, as well as other anxiety and depressive symptomology (Bolton et al., 2004)

As children reintegrate into learning and daily activity following a disruption, teachers are likely to be the first to observe any maladjustment the children display. In one study, researchers examined teacher assessments of the psychological state of children (Widyatmoko, Tan, Seyle, Mayawati, & Silver, 2011). The study involved about 150 teachers in four sub-districts of a large metropolitan school district representing over 3000 students. Students in the study displayed symptoms consistent with those of students with PTSD (Widyatmoko et al., 2011). Observations of common symptoms were noted (Widyatmoko et al., 2011). The most common difficulty observed by homeroom teachers were school-based problems such as decreases in student achievement, lack of motivation to study, frequent absences, and the inability to concentrate on schoolwork. The second most common symptom was fear of a re-occurrence of the traumatic experience as well as intrusive thoughts. Students displayed heightened psychological arousal to external stimuli that reminded them of the original trauma, namely loud noises or thunder. The third most common symptom was emotional problems. Students were unable to control their emotions. They manifested anger and sadness. Some students displayed an increased frequency of externalizing behaviors such as arguing, fighting, and hitting. Minor symptomatic displays included withdrawal and somatic complaint. Teachers in Widyatmoko et al.'s (2011) study were found to be a reliable resource in assessing student

affect. The study highlighted several implications for schools following large scale trauma. Researchers recognized that teachers were attuned to the symptoms of post-traumatic stress in their students. Therefore, teachers were a useful initial point of contact for assessing child distress in post-disaster situations. If teachers had been trained in basic information about post-traumatic stress, their capacity to assess children would have been significantly enhanced. Following a large-scale trauma or disaster, an important consideration would be the use of psychologists and their teams for the purpose of conducting psychological screenings. A school setting provides a key access point through which to reach significant numbers of children in need of services.

Some students displayed short-term symptoms of trauma while others struggled for the long term. Typical long-term effects of psychological trauma included loss of interest in social activities, education, and work. Additional effects included feelings of detachment, irritability, disturbed sleep, and impaired concentration. Because mental health diagnoses can mirror each other, health care professionals found it difficult to make accurate diagnoses (Widyatmoko et al., 2011). Nonetheless, it was appropriate to expect that as symptoms were mitigated, post-traumatic stress would diminish and daily functions would resume. The expected recovery timeline for individuals differed according to each person's experience with the trauma (Widyatmoko et al., 2011). A child's risk of psychological trauma and symptoms included four basic risk factors: the child's direct exposure to the disaster, the loss or grief of losing a family member, friends, or pets, secondary stress from displacement of major life changes, and prior exposure to a disaster or other traumatic events (Satterly, 2012).

## **Post Disaster Implications**

When a disaster has occurred and students have experienced loss, stress symptoms can interrupt the learning processes and hinder academic achievement. Individual students display different symptoms of stress. These differences can be influenced by multiple factors stemming from the traumatic experience such as previous experiences and coping capacities (Kronenberg et al., 2010; Satterly, 2012). A number of disaster studies have documented symptoms of PTSD in children who have experienced disasters such as earthquakes, hurricanes, or wildfires (Kronenberg et al., 2010). Less research is available related to instances of tornadoes.

Child-focused disaster research has examined post-disaster symptomology (Kronenberg et al., 2010). Children exposed to certain disasters were found to experience particular symptoms. Children who experienced hurricanes, for example, were at higher risk for symptoms of depression, anxiety, and PTSD. Although symptoms were correlated, children who experienced depression did not necessarily experience symptoms of PTSD. Likewise, children who experienced symptoms of PTSD did not necessarily experience symptoms of depression. The problem with focusing on the psychopathology of post-disaster symptoms was that it limited implementation of a full array of recovery possibilities. By examining recovery patterns, researchers gave due attention to multiple plausible outcomes following disasters which included posttraumatic growth and continued normal development, including the possibility of maladaptation. Where students' symptoms were too severe, they were unable to return to school (Cook-Cottone, 2004).

Reestablishing routine is one way to mitigate stress and chaos (Jaycox et al., 2006). It can give credence to taking a student's mind off something, helping the student to focus

on the task at hand (Peek & Richardson, 2010). When students get re-acclimated to familiar interactions and activity levels, they have opportunities to make new friends and establish new connections. This can help students stop thinking about the trauma or displacement they experienced and their ontological security can be restored, that is, the comforts provided by everyday social activities (Hawkins & Maurer, 2011; Peek & Richardson, 2010).

### **Relocation**

Forced relocation can be a traumatic experience and a contributing factor to the disruption of place attachment (Blaze & Shwalb, 2009; Milligan, 1998). Since the Welton tornado destroyed over 90% of the housing in the community, replacing housing options became the first priority (Long-term community recovery plan, 2007). Much of the community was forced to relocate in one fashion or another.

For students who are forced to relocate, there may be additional stresses related to getting reconnected with peers and familiar resources. In one study, students from two high schools in southern Louisiana participated in a study about forced relocation following Hurricane Katrina. Some students were forced to relocate and some students were not. Adolescents forced to relocate demonstrated higher levels of General Psychological Distress (GPD) and PTSD. Researchers noted that self-esteem played a part in the display of the disorders. Self-esteem was noted as an especially useful predictor for trauma symptoms following a natural disaster (Blaze & Shwalb, 2009). Students with higher perceived self-esteem demonstrated fewer symptoms of trauma in the future. The most significant findings in this study were related to the age of the students and the

geographical distance of the forced relocation. Older students demonstrated more difficulty and displays of PTSD. Additionally, students who relocated farther away displayed more PTSD symptoms than did younger students who were relocated closer to home (Blaze & Shwalb, 2009).

### **Reengage**

A student's ability to reengage in the learning process will be one observable measure teachers use to note adjustment or maladjustment. Some research has been conducted regarding student reengagement in the learning process following destruction of a school and loss of material resources. In one study, college students were surveyed following the destruction left behind from Hurricane Ike on Galveston Island, Texas (Watson et al., 2011). Findings identified three themes: 1) being prepared, 2) needing to be connected, and 3) returning to normalcy. In terms of being prepared, students suggested it would be helpful to include emergency procedural information in student orientation programs. Relative to the theme of staying connected, students expressed the need to feel cared for by providing more immediate updates about their school, classes and scheduled meetings, and social events. Students further suggested the use of electronic devices such as text messaging alert systems to facilitate connectedness. The technology provides multiple platforms for staying connected including website postings and cell phone functions. As for returning to normalcy, students noted it was a struggle to reestablish pre-disaster levels of functioning. Students who were distressed found it difficult to concentrate. For some students, efforts to restore classroom environments and school routines were more upsetting than the actual hurricane (Jaycox et al., 2006; Watson et al.,

2011). Classrooms were relocated and other common sites such as the library, cafeteria, and field house were either closed or only available at limited times. The study exemplified the need to have emergency preparedness and post-disaster recovery plans in place to mitigate subsequent adversities (Watson et al., 2011).

Following a disaster, considerations are warranted for reducing continued exposure to chaos. Returning to typical daily routines may be challenging enough without exacerbating student struggles (Jaycox et al., 2006). Following the Henryville, Indiana tornado in March, 2012, leaders found reestablishing daily routines was beneficial toward mitigating the current chaos of student's lives (Satterly, 2012). One leader stated that while teachers should listen to students and answer their questions about recovery, potentially stressful exposure to news stories across the various media should be reduced. Even in the act of restoring daily interactions, interruptions can continue and may contribute to added stress for students.

Resource loss, social support, and optimism are factors that affect a person's ability to cope with physiological distress related to disaster recovery (Benight, Swift, Sanger, Smith, & Zeppelin, 1999). The three variables have several implications for interventions following post-disaster recovery. One possible intervention includes the act of teaching individuals to set achievable goals, which would mitigate stress and help reverse the downward slide toward feelings of failure. Reestablishing goals enables disaster survivors to have a sense of environmental control necessary for disaster recovery (Benight et al., 1999). If survivors do not experience control over their environment, actions, and

progress, they are more likely to experience effects of chronic stress that may extend far beyond the initial trauma (Baum, Cohen, & Hall, 1993).

Ontological security is defined as the comfort provided by everyday social activities, community, the home-place, and the value of community. These comforts have been found to mitigate anxiety and risk (Hawkins & Maurer, 2011). Ontological security might be related to the safety-and-security and the love-and-belonging needs identified in Maslow's Hierarch of Needs (Poston, 2009). In one study, researchers interviewed 40 heads of household, 36 of whom were female. A qualitative examination of the mental health effect of displacement, community disruption, and loss was conducted. Findings included the significance of reconstructing destroyed surroundings such as homes, churches, and schools and the importance of restoring daily routine. These two findings were identified as the first critical steps toward reestablishing ontological security. The restoration of ontological security in adults has significant ramifications for restoring the ontological security in children, given the importance of adult-child attachment in positive youth development. Ultimately, students were able to move beyond simple survival and endurance (Hawkins & Maurer, 2011). Once ontological security is reestablished, a sense of relief is experienced as anxiety is reduced.

### **School-Based Responses to Meeting Student Needs**

It is increasingly recognized that public schools are a logical venue for students to receive mental health services which address the causes and symptoms of stress (Jaycox et al., 2006). Mental health professionals typically provide interventions. However, teachers play an important role as effective clinical mediators when mental health professionals are

scarce and their accessibility diminishes over time (Jaycox et al., 2006; Wolmer, Laor, Dedeoglu, Siev, & Yazgan, 2005). School can help students immediately following a traumatic event as well as providing on-going support.

While many programs have been developed to address students' mental health needs in schools, few programs have been studied longitudinally to gauge their effectiveness (Jaycox et al., 2006). Following a natural disaster, it is recommended that school administrators and other personnel identify the trauma needs of student groups as well as the goals of targeted programs before choosing one program over another (A. Besendorfer, personal communication, July 25, 2012). In the case of the Joplin, Missouri tornado, students indicated the efforts to restore daily routine were noticed and appreciated (A. Besendorfer, personal communication, July 25, 2012). Where response was delayed to meet community needs and not just educational needs, community members and students become frustrated (Smith & Cartlidge, 2011).

Replacing physical items alone is insufficient for the complete well-being of students recovering from disaster. Recognizing the continued needs of disaster victims is an ongoing and evolving process (Clettenberg et al., 2011). Hurricane Katrina struck the Louisiana coast on August 29, 2005. Just 26 days later on September 24, Hurricane Rita came ashore along the Texas coast. On both occasions, school settings played an important role in getting needed mental health services to masses of students and families (Clettenberg et al., 2011). Following Hurricane Rita, Houston areas schools welcomed school-based mental health services in an effort to offset the negative developmental outcomes associated with multiple disaster exposures. The Houston school district

welcomed displaced students by relaxing enrollment practices, opening classroom space, and making mental health services accessible in the school settings. Other considerations included the provision of trauma information for parents and students, technical assistance for mental health workers and school personnel on disaster preparedness, and professional development and seminars for teachers. Teachers, often times evacuees themselves, were depleted of energy and also in need of information and support.

In anticipation of meeting the long-term after effects of destruction, disaster-related services were coordinated between the Houston school system and community personnel in an effort to build capacity for long term recovery from disaster trauma (Clettenberg et al., 2011). As expected, younger students tended to exhibit the internalization of emotions such as fear, anger, and apathy. Surprisingly, secondary students acted out of the same emotions by exhibiting aggression toward students and teachers. Since Houston schools were the main point of contact for children and their parents, teachers were able to easily refer students for needed mental health services thereby mitigating post-trauma symptoms. However, while in Houston these services helped with PTSD symptoms, they did not fully serve the need for students recovering from the grief and loss associated with the added stress of forced displacement. (Clettenberg et al., 2011; Corcoran & Nichols-Casebolt, 2004).

The emphasis on mental health services in the school setting is important and likely to continue (Jaycox et al., 2006). As students' needs for mental health services grow throughout a recovery, access to services may diminish. Some school-based mental-health models are being considered to off-set this occurrence (Nastasi, Overstreet, et al., 2011).

One teacher-mediated intervention revealed recovering students to be more well adapted if they had participated in an early intervention (Wolmer et al., 2005). While teachers themselves might have been affected by the disasters, many continued to provide psychological support to students, even without school being in session. Some of those supports were directly related to students' special needs as well as mental health issues (Ducy & Stough, 2011). As disaster related topics entered the classrooms, and as students continued to demonstrate stress symptoms, teachers created learning opportunities through classroom exercises and discussions (Phillips & Phillips, 2008). Teachers found addressing stress symptoms as they arise to be beneficial toward helping students reengage in learning more quickly.

Because schools are typically accessed by outside agencies and students are accessible in schools, schools have typically been among the first the first institutions to reopen following a large scale natural disaster (Jaycox et al., 2006). Early post-disaster interventions addressing the social, emotional, material, and educational needs of children ultimately provide children with significant symptomatic reduction (Wolmer et al., 2005). Schools occupy an important role in post-disaster recovery and can facilitate a more rapid return to pre-disaster conditions. (Wolmer et al., 2005). School-based interventions also facilitate peer interactions thereby encouraging healthy social exchanges.

Teachers offer a sense of security and are considered trusted adults who provide care and knowledge to children (Wolmer et al., 2005). Students who participated in an intervention program immediately following a disaster demonstrated significantly improved functioning in comparison to those who did not. Students in the early

intervention program demonstrated superior academic performance, better social behavior, and improved general conduct in the school setting (Wolmer et al., 2005). By serving as a central component of the intervention program, teachers were empowered to be clinical mediators. Their roles expanded from educator of classroom instruction to providers of caring, individualized consideration, positive expectations, cognitive stimulation, and exposure to appropriate challenges (Wolmer et al., 2005).

Students face additional social-emotional challenges when they must integrate into unfamiliar settings with unfamiliar people. School-aged children participated in a study that examined Hurricane Katrina evacuees who had resettled in another state. This study was conducted specifically to hear from children about their own education recovery. The children identified several key factors that significantly influenced their recovery (Peek & Richardson, 2010). While 75% of students showed significant academic declines in the first year following the disaster, the same students returned to pre-disaster academic levels the following year. Some even excelled beyond pre-disaster performance levels (Peek & Richardson, 2010). The new educational opportunities encountered by students translated into higher academic results than they had experienced before (Peek & Richardson, 2010).

Four crucial teacher actions were identified by displaced students as having made a positive difference in their education recovery (Peek & Richardson, 2010). The first action was that teachers offered a sensitive introduction of the new student to the class, making the student feel more welcomed. The second action was that teachers assigned a peer to serve as mentor to the new student. The mentor student guided each new student around the school and introduced her to peers. The third action was the teacher offered extra

academic assistance to the new student and dedicated extra time before, during, and after school. The final action was encouragement of the new student to write or draw about her displacement and resettlement experience. Some students were reluctant to do this at first, but the more than half who participated did ultimately draw and write and found it to be quite helpful (Peek & Richardson, 2010). Additionally, students were acutely aware of certain aspects of their school pertaining to rigorous curriculum, quality of the facilities, activities offered, and the amount of resources and materials available for their use (Peek & Richardson, 2010).

In addition to the teacher actions, three crucial peer actions were identified by displaced students as having made a positive difference in their educational recovery (Peek & Richardson, 2010). The first peer action provided tutoring assistance that was helpful in catching up on missed school work. The second peer action was positive reinforcement and encouragement offered peer to peer. The third action was more indirect. Displaced students who observed their peers working hard at school were inspired to want to work hard as well (Peek & Richardson, 2010). This finding in particular illustrated a possible untapped recovery resource in children helping children. Schools support the most natural support system for children outside of the family—other children (Wolmer et al., 2005).

By examining recovery patterns and addressing the complex pathways to desired outcomes rather than simply the psychopathology of symptoms and individual risks, researchers can better attend to posttraumatic growth, continued normal development, and maladaptation (Kronenberg et al., 2010). Both resilience and maladaptation evolve over time and are influenced by an individual's past experiences with trauma and capacity to

cope with stress. Addressing complex trajectories provides an understanding of positive responses to disasters in addition to understanding the psychopathology of symptoms previously discussed (Kronenberg et al., 2010). Some caution is warranted in that some individuals may not possess sufficient skills to bounce back to normal patterns of functioning (Watson et al., 2011). In the process, individuals may discover personal strengths that enhance the likelihood of achieving a healthy recovery (Citraningtyas, 2010) As noted earlier, some individuals may return to normal and excel beyond what they had done before (Peek & Richardson, 2010). Others may not be able to return at all (Cook-Cottone, 2004).

Regardless of whether a child demonstrates resilience or maladaptation, recovery patterns must be understood in order to address the vast developmental tasks that students face. Recovery patterns include concepts such as chronic dysfunction, recovery, resilience, and delayed reactions (Bonanno & Mancini, 2008). Resilience is normal and expected (Bonanno & Mancini, 2008). Recovery from disaster is a process of both personal and institutional restoration. The recovery processes of each are dependent upon the way in which a person is able to respond, and the humanitarianism of those involved (Collins, 2009).

### **Disaster Response Policy**

Federal legislation established the National Commission on Children and Disasters in 2007. The Commission's assignment was to examine and assess the needs of children in preparing for response and recovery from all forms of hazards including major disasters (National Commission on Children and Disasters, 2009). The report was submitted to

President Obama and Congress on October 14, 2010. It was noted in the report that previous disaster planning and management did not place the response to children as high as the response to adults (National Commission on Children and Disasters, 2009). Also noted was the embarrassing fact that state and local emergency managers were required by federal law to include meeting the needs of pets in disaster plans, but not children.

The report included a list of eleven findings and recommendations. The recommendations described the urgency of prioritizing the needs of children within each recommendation (National Commission on Children and Disasters, 2009). One FEMA administrator stated, “There is no stronger indicator of hope and optimism to a disaster-affected community than to see a yellow school bus making its way down a neighborhood street.” (National Commission on Children and Disasters, 2009, p. ii). With meeting the needs of children now being of elevated importance, finding the most appropriate and efficient methods to do so will also be significant.

A review of literature highlighted many aspects of disaster recovery and revealed little research had been conducted in the specific context of schools. In particular, little research had been conducted with school children, giving them no voice of their own, instead, adults commented on their behalf. Less literature was available in the specific context of education loss related to tornadoes. To research the needs of both educators and students, as noted earlier the following four research questions were designed to generate further understanding related to education recovery processes following the destruction imposed by a tornado as experienced by the schools of Welton.

1. What emotional bonds to objects, people, places, and routines were developed prior to the tornado?
2. What were the disruptions to education and learning caused by the tornado and the rebuilding of schools and community in the first year after the tornado?
3. What efforts on the part of the Kingston County Schools did staff and students find to be most beneficial in their education recovery?
4. What efforts were overlooked on the part of the Kingston County Schools that might have been beneficial?

## CHAPTER 3

### RESEARCH DESIGN AND METHODOLOGY

The research design of this study is discussed in this section. Consideration was given to site selection, participant selection, data collection, data analysis, and research quality. The decisions for these considerations were based upon what previous research about traditions of inquiry had revealed to be most beneficial to the researcher, the research participants, and the educational research community.

To better understand the methodological challenges related to place attachment, it was important to distinguish between two applications of the term. Place attachment can reference the emotional construct related to the intensity of or strength of attachment to a place. Place attachment can also reference the broader psychological processes surrounding the formation of the attachment and the meaning it holds (Williams, 2014; Williams et al., 1992). Methods used to address place attachment as it relates to strength and intensity of the bond utilize quantitative, psychometric measures. Methods used to address place attachment as it relates to formations of emotional bonds and the meanings they hold for participants utilize qualitative approaches where descriptions of interactions and processes are elicited (Williams, 2014). In this study, I referred to the term place attachment to depict the formation of attachments and the meanings they held for study participants. I used a qualitative approach to better understand place attachment and the meaning it held for study participants as it related to their experiences toward education recovery. Qualitative methods allowed participants to articulate deep and rich descriptions of their experiences with the events of the tornado (Creswell, 2009).

## **Narrative Inquiry**

Narrative inquiry focuses on who tells the story and how it is told and is intended to highlight the meaning of the experiences held by the narrator. That said, narrative research dismisses the notion that research is neutral. It is argued that the search for objective stances within a person's lived experience itself is subjective and, as such, is a desired methodology in the research on place attachment (Lapan, Quartoroli, & Riemer, 2012; Rishbeth, 2014). Narrative inquiry is a method of understanding one's own and others' actions, of organizing events and things into a meaningful whole and of seeing the sequence and consequences of actions over time (Chase, 2008). An additional power of narrative inquiry is that experiences can be analyzed among various members of a group to see the influence the organization of events and the way a story is told has upon the lives of the members of a group (Chase, 2008). Narratives express thoughts, emotions, and interpretations. Narrative researchers reject the idea that findings and conclusions generated from too small a number of participants are not transferable. Narrative research does not strive to produce constructs of certainty, rather, it aims to be well grounded and supportable (Webster & Mertova, 2007). These researchers highlight the uniqueness of the narratives and place them in a broader frame (Chase, 2008). For my research this meant unique qualities of individual stories told could be linked to the four research questions and place attachment theory (Webster & Mertova, 2007).

A narrative inquiry design was used to elicit information from respondents about critical emotional connections to place, the significance of attachment disruptions, and the efforts, supports, and interventions respondents deemed beneficial to the process of

education recovery. Narrative inquiry is a method of storytelling wherein participants depict their lived experiences. The narrative inquiry format allowed me to invite the research participants to expand deeply on the most significant aspects of their education recovery (Hays, 2004; Lapan et al., 2012). The qualitative nature of the storytelling format allowed participants to describe the thoughts, emotions, impressions, and recollections of the education recovery process as well as the nature of their interactions with other individuals after the tornado (Merriam, 2009). The narrative format in particular focused on that which the respondent deemed most compelling to expand upon (Chase, 2008).

Narrative inquiry focuses on individual experiences where differences between those individuals are valued. With narrative inquiry, the methodological concern is that the narrative is recognizable to the storyteller and captures the essence of the storyteller's experience. The meaning of any one place to any one person is largely a property of uniqueness, however, it may be relatable to others in similar circumstances and therefore transferable (Williams, 2014). The strength of narrative inquiry lies in its design, that is, its capacity, to mine unique insights from within the stories that are told (Lapan et al., 2012).

As a way to understand experience, narrative inquiry has gained momentum in the last two decades. It is becoming more widely used because of its applicability for research across disciplines such as education and psychology (Webster & Mertova, 2007). Narrative inquiry constitutes an interpretive transactional approach to describing meaning in which the researcher and the participants work collaboratively to convey the reality and the meaning of the storyteller's lived experience (Williams, 2014). The researcher guides the

storytelling process while the participants become the storytellers. Through the narrative approach, participants were able to describe the processes by which they negotiated the meanings of their experiences and defined their common sense understandings of the everyday world. Of particular interest in narrative inquiry is the growth and transformation that takes place for the participants through the act of storytelling. There is a reflexive process which takes place for the participants as they construct their narrative, tell, retell, and relive their experiences (Clandinin & Connelly, 1996). Five of the eight of my study participants spoke of the enjoyment they experienced through the process of retelling their stories, one more time.

Participant perspectives are a fundamental concern when using narrative inquiry since participants describe the events which hold particular meaning for themselves (Chase, 2008). As a design method, narrative inquiry allowed me to capture the complexities and variances of the participants' lived experiences (Clandinin & Connelly, 2000). The participants' responses lead to a broader understanding of the individuals' subjective experiences by explaining the interactive processes that occurred between themselves and the experience of the destruction (Chase, 2008). Narrative inquiry was selected to answer the research questions because its focus on individuals aligns with individual emotional bonds to place set forth in place attachment theory.

### **Research Site**

The context of the city of Welton was paramount to this research with place attachment as its theoretical framework. Welton was selected because it is small, rural, and the site of a single distinctive event-- an EF5 tornado-- that destroyed 95% of the

community's existing physical resources. This is different than in Joplin, Missouri, where the same sized tornado, while tragic and devastating, destroyed only a portion of the community as opposed to nearly the whole community. The availability of remaining resources in each case was drastically different and provided different challenges in the recovery process. I selected Welton to reveal a deeper understanding of the role of the schools in the education recovery process of a small rural community. Small rural schools tend to have unique and closely woven social interaction structures (Bushnell, 1999). Selection of this site was appropriate given the desired outcome to have broader and deeper thinking regarding decisions surrounding education recovery following a natural disaster. (Tracy, 2010).

In Kingston County Schools, the district office was located within the one preschool through twelfth grade building. This site was the most naturalistic educational setting in Welton. This site was easily accessible to administrators, teachers, and any former students who reside in the community.

### **Participant Selection**

The event of the Welton tornado took place seven years ago. The focus of my research was on what study participants viewed now as what was most meaningful for their education recovery seven years ago. Because I was not researching their ability to accurately reconstruct the details of past events, the fallacies of memory did not present a barrier to my research. As a researcher, I worked to probe for what drew out the contexts behind the stories from which participants shaped meaning from their own experience. The participants' narratives served as a bridge between the past and present (Rishbeth, 2014).

As in this narrative inquiry, meaning will be constructed from what the participants viewed as most significant in their recoveries. As grounded theory would direct, further probing and elaboration will additionally affect the direction of the study (Glaser & Strauss, 2009). Individual responses will reveal unique experiences held by each participant.

Connection to place endures as people hold on to what they can (Fullilove, 2014). As members of the city of Welton, this post-disaster community demonstrated a unique view of a community's capacity for resilience. Much was learned about individuals by understanding the actions they took to repair their place attachment and astutely listening to their narratives of the experience (Stedman, Amsden, Beckley, & Tidball, 2014).

The respondent's role was to provide descriptions of that which had been witnessed, thought, or felt (Weiss, 1995). The participants' responses were their renditions of their perceptions of a life event. The participants added story structures to what would have otherwise been random events. In the collaboration between me as the researcher and the storyteller, mutual influence existed between us whereby I explored the details given by the storyteller and the storyteller in turn responded again to my probing. Even though narrative research represents such a collaboration, the distance between the researcher and the storyteller was never fully bridged because there was no truly unmediated access to the participant's thoughts and actions (Lapan et al., 2012).

Study participants were selected using a purposeful sampling structure. Purposeful sampling allowed me to intentionally interact with the participants whom I believed would best inform the study (Creswell, 2009). Purposeful sampling allowed me to hear from

those who were directly affected by the Welton tornado so I could strive to understand from their perspective what it took and still takes to have restored social interactions and connections to people within an educational setting.

Participants were selected from those who lost their school setting, their belongings and learning materials, and their social and academic routines, as well as any support systems they already had. The participants were deliberately selected because of their experiences with the event of the tornado and the key perspectives they had to offer about the education recovery process (Maxwell, 1998). Each participant feared for their lives or the lives of their immediate families at some point during the tornado. Three participants were out of town while their family members sheltered in Welton. Five participants sheltered in their own homes in Welton. Each participant endured loss of all material possessions, home, school, routine, and as a result, they all experienced altered social connections. The pool of participants was bounded by this context and therefore finite in number. Research participants were limited to those who experienced the event and included the following: superintendent, elementary principal, secondary principal, 2 teachers, 1 paraprofessional, and 2 former students. I did not include other participants as no additional participants suggested as being a critical informant to the study were willing to participate. One such teacher declined. No other potential participants were suggested even through multiple follow up attempts. Because one of my goals was to address the role played by the school district in the education recovery process, I did not interview anyone who was not directly involved in the school at the time of the tornado.

Two of the participants were former students who were in high school at the time. I selected that age group because I anticipated older students would be more cognizant of their memories than younger elementary students due to their maturity at the time of the tornado. The exact number of teachers and students to be interviewed remained flexible, however, no one further was referred to me as a potential participant. Other possible former student candidates were either dismissed by their peers as likely to be too timid to participate in research such as this, or their whereabouts were unknown.

### **Data Collection**

Data sources included individual narratives of lived experiences, document review such as newspapers, websites, government reports, and researcher notes of my reflections while out in the field. Each of these collection processes are discussed in this section. The use of multiple sources of information provided more opportunities for qualitative description within the study, and therefore more opportunities for me to derive meaning from the study findings.

#### **Individual Narratives**

The primary data source for this study was the individual narratives. The narrative prompts included open-ended questions as well as some semi-structured questions to establish and initiate the storytelling process. The protocol ultimately invited the participants to take on the role of the storyteller by narrating their experiences with education recovery in which they highlighted those aspects of recovery which they deemed to be significant (Chase, 2008). The types of questions I asked were aligned with the purpose of establishing a collaborative relationship with the narrator as well as accessing information which would not otherwise be

observed or retrieved (Maxwell, 1998; Stake, 2010). Additionally, the open-ended format allowed for the unique characteristics of the narrator's experiences to stand out.

I conducted a total of eight in depth, one-on-one sessions. I was able to conduct face-to-face sessions with one superintendent, two principals, two teachers, and one paraprofessional. Due to scheduling conflicts which did not allow face-to-face meetings, I met individually with two former students via video conferencing. Sessions lasted a minimum of forty-five minutes and a maximum of one hour and forty-five minutes. To my surprise, the two video conference meetings were the two longest sessions. It was anticipated the video conferencing format would pose limitations regarding personal interactions between the participants and me. However, I felt strongly that I was able to conduct high quality sessions with the participants in spite of the digital format. Perhaps the high quality session was still achieved because the participants were in their familiar and comfortable environment while conducting the video conference. The sessions were established as informal and non-threatening partnerships between me and the respondents. We worked together to produce useful research information (Chase, 2008). With narrative inquiry, it is not important to hold sessions with a large number of participants (Webster & Mertova, 2007). Rather, the continued use of richly detailed data contributed to the development of the research on place attachment.

An interview schedule was created based on participant willingness and availability at the time of data collection. The six face-to-face sessions took place in Welton and on site of the school. I was afforded access to a large comfortable conference room to conduct the meetings. While the meeting environment was accommodating and comfortable, the

fact that it was a school conference room might have been confining to the interaction if the setting conveyed the feeling of being too business-like. No follow up meetings were warranted. Two subsequent email exchanges took place to clarify story details. The data from research participants was in the form of stories of events described by those individuals and was used to highlight the unique meanings and characteristics of the participants lived experiences with education recovery.

### **Document Review**

Documents have been examined and stored for ongoing reference. A review of reports, websites, newspapers, school strategic plans, and community strategic plans took place. These artifacts have been reviewed in order to capture relevant information that interviews and observations might have missed (Creswell, 2009). Documents collected and examined strengthened interview findings and did lead to further interview questions or insights as the process of the interviews unfolded (Merriam, 2009). When one participant revealed a unique piece of data, I was able to seek elaboration from subsequent participants regarding the same or similar topics.

### **Field Notes**

I took note of my observations and reflections during the course of my research. I noted when the conversations became emotionally difficult for the participants. I listened for potential additional participants' names or other pertinent topics to follow up with. Through the course of listening to the participants, I was not compelled to seek out additional participants. I regularly reviewed my notes. Review and reflection lead to

further interview questions for participants. No subsequent sessions were scheduled with participants.

### **Data Analysis**

Since the early 1990's, storytelling as a research technique has assumed a more central role in qualitative research (Merriam, 2009). This form of data is analyzed for the meaning it has for the narrator (Chase, 2008; Merriam, 2009). The sequences and consequences of events described have been retold and intertwined with the responses of all participants. The realities of eight individuals have been intertwined and retold in a sequential fashion with each participant's unique story remaining intact. The retelling has been constructed in partnership with me to include each participant's rich detail and unique description of each participant's experiences (Chase, 2008; Merriam, 2009).

The three most common approaches to analyzing narratives are biographical, psychological, and linguistic. Each approach examines the nature of how the story is constructed. For example, the biological approach examines how gender, race, and life experiences might influence how the narrative is told. The psychological approach considers thoughts and motivations. And the linguistic approach focuses on the language of the story and includes pitch, intonation, and pauses in speech (Merriam, 2009). Narrative analysis uses people's stories to better understand their lived experiences. Although I considered each approach during the data analysis process, I placed more emphasis on thoughts and motivations of the participants.

Analysis began with the digital recordings of the storytelling sessions. Sessions were digitally recorded to ensure the accuracy of respondents' statements and descriptions.

Audio recordings were reviewed multiple times to reflect on the biographical, psychological, or linguistic content of the narratives to determine any significance (Bird, 2005). Linguistic considerations were present as some of the participants demonstrated emotionally charged responses. Narrative responses were transcribed verbatim from the audio recordings of each session. As I transcribed the narratives, I became the channel for that voice and a collaborative partner with the narrator (Bird, 2005; Chase, 2008).

The transcripts were reviewed for detail, making note of similarities and unique highlights from each participant (Chase, 2008; Hays, 2004). The headings in the findings section were derived from empirical data, and are the basis for what was interpreted and described in the final report. Collectively, the analysis of the narratives, artifacts, and my notes were the foundation for what was retold in the final report. Narrators' views were integrated from my own understandings of their experiences and from collaborating with the narrator to depict meaning (Creswell, 2009). The stories have been mutually constructed and retold intertwining individual stories in a chronological format.

Qualitative data analysis is an inductive and comparative process (Merriam, 2009). Data collection and data analysis took place to link highlights to the theoretical frame work and of the study and the research questions in the final report (Ryan & Bernard, 2003). All data collected were organized and examined in ways that allowed for easy access to review the information for a deeper and broader understanding of the information collected. The examination process was a dynamic process of reviewing and comparing data. I continually analyzed the data and noted commonalities and highlighted differences across

the data (Schwandt, Lincoln, & Guba, 2007). Narrative inquiry mines for those unique differences and highlights which are foundational for qualitative studies.

### **Research Trustworthiness**

Qualitative research is descriptive by nature and where the researcher interacts with the researched. The research warrants consideration for high ethical standards and trustworthiness of the data. Therefore, certain steps are necessary to ensure research quality (Schwandt et al., 2007). The processes by which trustworthiness was achieved is addressed in this section. To address trustworthiness in qualitative research, four criteria are described: credibility, transferability, dependability, and confirmability, which were used in this study (Guba & Lincoln, 1985; Shenton, 2004).

#### **Credibility**

Credibility of this study was achieved in my attempt to demonstrate that a convincing picture of the experience has been presented (Guba & Lincoln, 1985; Shenton, 2004). Member checking is a common recommended strategy for ensuring credibility. Member checking is a process through which participants are given an opportunity to review the narrative transcript or summary of the preliminary findings. Member checking was employed in this study. Data from the individual sessions was read and prepared for analysis in an effort to gain a general understanding of the information. The summary of the transcripts were reviewed by participants to check for errors or misrepresentation. This was the single most important way of correcting for the misinterpretation what the respondents said or meant because it allowed the participants to add additional information or comment on inaccuracies (Maxwell, 1998; Schwandt et al., 2007). Member checking did prove to enhance the accuracy of some story details in this study.

### **Transferability**

Transferability was achieved when sufficient detail of a phenomenon was depicted to such a level that others could find it believable and familiar enough to relate it to their own situation. Data that are rich with description have practical value for the reader (Sandelowski & Barroso, 2003). Narrative and detailed data will allow readers to make judgments about the degree of fit a situation may or may not have that is comparable to a situation in their own experiential worlds. The reader can determine if the findings transfer to his or her situation. When the details of a study resonate with a reader, the study's potential value across multiple contexts is increased and therefore considered to possess transferability (Tracy, 2010). The more descriptive the data, the more transferable the interpretation (Maxwell, 1998).

### **Dependability**

Dependability may be difficult to achieve in qualitative research. The researcher should give honest attempt to enable future researchers to conduct the study (Shenton, 2004). While replicability is typically addressed in quantitative studies, it has a presence in qualitative research to the degree that another researcher could conduct a similar type of qualitative narrative inquiry (Guba & Lincoln, 1985). Dependability was achieved because narrative findings were consistent and supported with the multiple types of collected data (Merriam, 2009). Dependability and credibility can be related to the degree that thick, rich, descriptive data adds to consistent findings and an accurately represented participant perspectives. The commonalities of the participants stood out in this way. Some story

details were revealed across multiple resources such as reports, websites, and other stories. When commonalities were obvious, so too were unique features.

### **Confirmability**

Confirmability was achieved when I as the researcher elicited richly descriptive data that demonstrated how the findings emerged from the data and not the predisposition of me as the researcher (Guba & Lincoln, 1985; Shenton, 2004). In this study, the multiple data collection methods of storytelling sessions, document review, and researcher notes contributed to the confirmability of the study. Each source added data that enhanced the quality of the study. With this study, rich description and observations, combined with data from other sources provided a holistic interpretation of the context in which the tornado destroyed schools and interrupted the learning process in the city of Welton.

### **Where Place Attachment Theory and Narrative Inquiry Intersect**

Some narrative researchers focus on the relationship between individuals' life stories and the quality of their lives. For example, when the story told is about a particular life event, sometimes those events are classified by the narrators as turning points. Some individuals might tell their stories in terms of redemption, that is, when negative events have had beneficial outcomes. These individuals may even reflect on their life events with a sense of nostalgia. When speaking nostalgically about a place, people often reflect back on both positive and negative traits of the place because of the emotional impact they experienced in that place. Place had an effect on the participants' sense of self (Milligan, 1998). Nostalgia is a device that works to connect past and present by creating continuity among the emotions linked to that experience. The common connector is the specific

physical site. Therefore, place attachment serves to organize time by framing site-specific memories linking past to present, giving memories the feeling of being continuous even given the disruptive event (Lewicka, 2014; Milligan, 1998). For some people, losing a physical site and objects is losing the most tangible connection to a particular set of memories. In this sense, a site, too, serves as an organizer of events and memories. To lose the site or material objects is to lose the access to past experiences (Milligan, 1998). The importance of the physical site and material objects as transmitters of shared experiences of a collective past is significant. They are reminders that events and experiences did occur (Milligan, 1998). Lack of satisfying replacement is a defining characteristic of place attachment (Williams et al., 1992).

Alternately, individuals may tell narratives of good or bad events which produced negative outcomes. Narrative researchers look for evidence where the stories people tell affect how they live their lives. In other words, some stories cripple the narrators toward renegotiating place attachment while others enable the narrators resulting in an efficacious sense of self relative to negative life experiences or trauma (Chase, 2008). Five of the eight study participants indicated the latter.

### **Ethical Considerations**

The previously discussed trustworthiness of this study was further supported by ethical practices (Merriam, 2009). Since narrative research consists of obtaining and then reflecting on people's personal stories, I had an ethical duty to protect the participants' privacy and dignity. Ethical practices relative to narrative inquiry include respondents' free consent to participate or withdraw and the assurance that no harm can ensue from

participation in the study (Josselson, 2007). Participants understood that participation was voluntary and they could have withdrawn from the study at any time.

I created a working balance between being an intimate conversational partner with participants and a scholarly contributor to the larger research community (Josselson, 2007). Participants' privacy has been protected using several measures. Documents and recordings have been kept secure using password protected software and computer equipment. Informed consent was established prior to initiating data collection.

### **Researcher Positionality**

In May 2012, I had a conversation with an intern who was providing site-based therapy services to high school students in Joplin, Missouri. The make-shift school was in a vacant area of a local mall. Students' only learning material was an iPad. The intern commented that some of the students liked this platform and others did not. That comment intrigued me and was a turning point for the focus of my research. I wanted to know what about it the students liked and what they did not, and what they would prefer to feel functional and engaged. I wanted to hear it from the students themselves. It became my opinion that educators need to understand the intricacies of what it takes to fully engage students in learning, which fueled my motivation to conduct this study (Maxwell, 1998).

That conversation sparked two more conversations, one with an assistant superintendent for Joplin, Missouri schools and one with the superintendent of Kingston County schools. In these conversations, I vaguely explored the similarities and differences of the two situations. One district was large, metropolitan, lost a portion of its community,

and the disaster occurred in 2011. The other was small, rural, lost 95% of its community, and the disaster occurred in 2007.

I focused my study on Kingston County Schools. Welton citizens and educators made a commitment to rebuild and I wanted to know something about that, some perspective from those affected about being a part of education recovery. I understand that participants in such a study could be considered a vulnerable population. The data I collected came from memories of a traumatic time in study participants' lives. I expressed this concern to the superintendent. The experience of the traumatic event itself can affect one's memories surrounding that event (Spermon, Darlington, & Gibney, 2013). The superintendent was not concerned because Welton had become largely comfortable with being studied and observed from different entities such as Discovery Channel and tour companies which made their way to the city of Welton by the bus loads (D. Headricks, personal communication, July 2012). Given that the Welton community had become familiarized with participating in research data collection, I additionally needed to consider that the participants' responses were not rehearsed responses given by rote. I ensured originality of the responses by the story prompts I employed.

I share with many the experience of loss and grief, though not related to natural disaster. I have deep appreciation for the service and humanity of others. Given the sensitive nature of the topic, I gave due attention to building rapport with the participants so everyone was as at ease with the process as possible.

Because the researcher is the instrument for collecting data present in the study and interacts directly with the environment, analysis and interpretation can vary depending on

researcher positionality (Creswell & Miller, 1997; Sandelowski & Barroso, 2003). As a researcher, I recognized the co-existence of power and ethics. As the data researcher, I was the one in control of the collection, the interpretation, and the retelling of information. As an ethical researcher, I understood the immense responsibility in adhering to the research quality assurances, ultimately respecting the collaborative relationship between the study participants and me, and to the best of my ability retelling the storytellers' stories.

## **CHAPTER 4**

### **FINDINGS: WELTON STORIES OF EDUCATION RECOVERY**

The findings in this section are presented as narratives from each of the study participants. Each person's story began with their overview of their experience on the night of the Welton tornado. While each person shared the common experience of the tornado in some way, the stories about their personal education recoveries express some differences as well as depicting some commonalities. Their stories are interwoven in a chronological fashion as it relates to each participant.

#### **Introductions to Study Participants**

Neil is the Kingston County schools superintendent. He has lived in the Welton community for the last 15 years. He had one son in high school at the time of the storm. His son is now in college.

Dan is the Kingston County schools high school principal. His wife is a school receptionist. Their young children attend school in the Kingston County schools. Dan started his teaching and coaching career in Welton, later advancing into building level administration. He and his family live in the city of Welton.

Iris is the elementary school principal. She is also a junior high girls' basketball coach. She has two sons, one of whom was in high school at the time of the tornado. Her husband was the head of maintenance for the schools at the time of the storm and still holds this position today. They reside in the city of Welton.

Nancy is the high school English teacher. She has one daughter, Rachel, who also participated in this study. Nancy and her husband live in the city of Welton.

Rene is the elementary vocal music instructor. At the time of the tornado, she had a two-year-old daughter and was two months pregnant with her second child. She and her husband and children live in the city of Welton. Her children attend school at the Kingston County schools.

Jena is a high school para-professional. She and her family have lived in Welton for many years. Jena has two daughters. One daughter, Lola, was in eighth grade at the time of the storm. Lola spent three years attending school in the FEMA trailers. She attended Welton's rebuilt high school for her senior year but reported feeling unconnected to the new building.

Rachel is a junior in college at a state university. She is majoring in Family Studies with a minor emphasis in Trauma Studies. She was a freshman in high school at the time of the tornado. Her mother, Nancy, is the high school English teacher.

Doug attends a private Christian college. He is majoring in Agricultural Studies. His mother and younger brother live in the city of Welton. He enjoys farming. He is passionate about farm equipment and storms.

### **The Night of the Storm**

May 4, 2007, was a normal sunny Friday at school in Welton. As was typical on a Friday in May, many school staff and students were busy with their spring activities. One group of debate and forensics participants was across the state in Alsup participating in a state competition. Several staff members served as chaperones for a bus full of students who would stay in Alsup over night following the competition. Nancy, a high school English teacher, was one of the chaperones. Nancy's daughter, Rachel, a freshman in high school, was on the team. Jena, a high school para-professional, accompanied the forensics team as a chaperone.

The superintendent, Neil, and high school principal, Dan, were away at a track meet in a nearby town. Doug, a junior in high school, was with them. Neil and Dan had driven a school vehicle transporting students to the event. Iris, the elementary principal was with her own son, a freshman in high school, at his state golf competition in a neighboring town. She had seen storm chasers in town on the way to the golfing event earlier that day. Rene, an elementary music teacher two months pregnant with her second child, was at home with her 2-year old daughter. Her husband was out of town on business and would not be home until the next day.

For those who were near Welton in the small, surrounding towns, dark clouds in the southern sky could be seen, not an unfamiliar site to natives of this Midwestern state. For these Midwestern natives, dealing with severe weather is a part of living in Tornado Alley. As the clouds built taller and became black, the colors in the sky changed from grey to hues of green, which is common when hail is present in the storm. It became apparent to the Welton school administrators in each of the nearby towns that weather was going to be a concern. The administrators determined it was best to suspend activities and head home for Welton. Superintendent Neil and the high school principal, Dan, recalled taking students back to the school and waiting on the students' parents to pick them up. Some students lived close to the school and were able to walk home. Other parents picked up their children. One student did not have a ride and lived across town, so Neil and Dan transported the student to Dan's house to wait out the storm.

Elementary principal, Iris, and her son heard tornado warnings issued on the radio station. They hurried home to shelter in their own basement. Iris's husband, who was the school's head of maintenance, brought home yet another student who needed shelter. They made it to their

basement five minutes before the first funnel of the storm passed through town and veered off to the east side of Welton.

Each of the other groups made it back to their respective houses to shelter just minutes before the first funnel came through. Not many people outside of Welton knew of the first funnel that evening. It was small, deemed an F1 or F2, and was less reported by the media since it took a back seat to the big one that arrived 15 minutes later. With the first funnel, signs were knocked over and tree limbs were broken. Nonetheless, nothing about the first funnel seemed out of the ordinary for a small Midwestern tornado. About 15 minutes later, there was word of a second and much larger tornado headed toward town. It was described as a wedge tornado. This was foreign to Rene, the elementary music teacher. Rene had not heard of a wedge tornado before. With that, she knew the situation must be more serious than usual. She was used to hearing about rope tornadoes that were much thinner and usually left a narrow path of destruction. Wedge tornadoes leave wider paths. People returned to their shelters as the tornado hit.

As the second and much larger wedge funnel approached Welton at approximately 9:45 that night, the sounds of pounding hail came first. The hail was the size of baseballs and grapefruits. The electricity went out. The sky was black. Jena's daughter was at home in Welton and had called her mother in Alsup to let her know what was happening. She told her mother the vents in the house connected to the washer and dryer were flapping like they usually did, but quite rapidly and making noises louder than usual. She did not realize it at the time, but the air pressure was changing with the approaching storm and the flapping vents were her first clue that the outside air was strange. Doug was at his home alone. His ears were popping

because of the air pressure change, similar to what happens on an airplane. Doug could hear the snapping of things breaking and cracking outside. The noise of the tornado as it passed through town was likened to 10 times the roar of a locomotive rolling down the tracks. Trains today remind Doug of the tornado sounds, but they do not really compare to the noise level he heard that night. The winds that night were clocked at over 230 miles per hour.

Meanwhile, the group in Alsup only heard about the weather from relatives calling and friends texting on cell phones. They knew a tornado warning had been issued for Welton and their families were sheltering. Some could not get through to their families to communicate with them and only hoped their families were aware of what was upon them and were able to shelter. In their hotel, the Alsup group watched minute-by-minute television coverage of the weather activity in Welton.

At one point, the news reported the town of Welton had been wiped out. Given that information, no one in Alsup really knew the status of their families. The students and chaperones were anxious, upset, and worried. Freshman student Rachel wondered if her dad and friends had been swooped up in the big wind and tossed around the town. Rachel's mother, Nancy, was able to contact her husband back in Welton. He informed her which families he had seen and who was okay. So Nancy roamed up and down the hotel halls giving students messages about the well-being of their families. One girl's entire family was severely injured and transported to a major metropolitan hospital. She was later picked up by family members and united with her family at the hospital. Since the forensics competition sponsors had two school vehicles with them in Alsup, the chaperones organized one group of boys and men to go back to

Welton to help out in whatever ways they could. The others stayed in the Alsup hotel. It was a good, safe place to be. Besides, at that point, there was nothing to go home to in Welton.

During their stay at the Alsup hotel, Jena remembered the various ways students reacted when they could not get in touch with their families. Some wanted solitude and privacy while others wanted company or even to be hugged and held. Some withdrew. One girl crawled into her bed and pulled the covers over her head and went to sleep. That is how she dealt with the stress. As was obvious to Jena, other students were crying and upset. Jena remembered that one of the senior students called everyone together. She wanted everyone to circle-up and pray together. The senior girl led a prayer for the group. It was not what anyone would have expected from that particular student. Shortly after, the chaperones started to receive the first responses from the administrators back in Welton regarding the extent of the destruction. Knowing the school group was going to be awake and wondering late into the night, hotel personnel provided more food for the Welton group in an attempt to accommodate their stay.

### **After the Storm Passed Through**

Back in Welton, whole houses were flattened. Second stories collapsed onto first floors. Doors and windows were absent. Boards, debris, and foreign objects had been tossed through the air and the town. Harvest combines were masses of twisted metal. Oil storage tanks tumbled through the streets and crashed into houses. The duration of the big wedge tornado passing through town was about 15 minutes. Immediately following the storm, as soon as they could, people dug themselves out of their basements and shelters. As each family emerged, they slowly helped neighbors and eventually made it across and throughout town to check on other family members and people they knew.

While families dug themselves out of the rubble, parents called upon their eldest children--sometimes high-school aged students--to help account for neighbors and other family members. Doug remembered being taken aside by his parents and coached to mentally prepare for what could be horrific discoveries. When Doug went to his grandparents' home, he discovered the recliners in which they sat each night were buried beneath massive debris. Doug was relieved to discover they had been able to safely shelter in their basement. Jena remembered telling her 8th-grade daughter the same. She stated, "I told Lola, 'as you help neighbors, you might discover severely injured people, or worse.'" In that respect, some teenagers were suddenly expected to deal with adult topics and have adult conversations they might not have been prepared for. In the aftermath of the storm, the sun had gone down and there were no lights or electricity. It was not until the next morning when the sun shone across town that the extent of the destruction became apparent.

Saturday morning, Neil and Dan made their way back into town in Neil's pick-up truck. They were able to stay in Neil's parents' empty home because his parents had been out of town. Returning back into the town was not easy. Vehicles had difficulty driving through town because emergency responders were active and debris-filled streets blocked the way. With the sun's early light, they were able to see what had been destroyed and what was left of Welton. Among the rubble was the Welton school. In near synchronicity, Neil and Dan looked at each other and expressed, "We will rebuild." Neil knew he would personally have to rebuild his own home in order to demonstrate the kind of commitment it would take to rebuild the school.

For the next two days, Neil insisted Dan and Iris do what they needed to do to take care of their immediate families. That would include finding adequate vehicles as well as temporary

housing. In the upcoming week, the administrators worked together through word-of-mouth and paper lists to account for all staff and students. They met daily at certain times. Neil's pick-up truck became the central office. As it turned out, no school staff members and no students were killed in the tornado.

Iris remembered that Neil would routinely pick up each principal and then find a place to have coffee and make plans. They would discuss what each of them was taking care of. Iris believed this method worked well because Welton was a small community and the administrators were more than professional colleagues—they were also good friends.

### **One Week Later**

During the first week after the storm, the three school district administrators were able to meet with board of education (BOE) members. The administrators and the BOE believed staff needed to be reassured about their futures with the school district. Neil had the support of the BOE to make an immediate announcement to staff. The BOE promised staff members they would continue to have jobs for the upcoming school year, if they wanted them. Neil explained the logic. The school finance formula in the state permitted three possible enrollment numbers to be used. The school could use the current year's enrollment numbers, the prior year's enrollment numbers, or the school could use a three year average of its enrollment numbers. With the formula in mind, Neil understood the worst-case financial scenario was one of two possibilities: if only *one* student walked in the door or if *all* students walked in the door. In either case, the current school year's enrollment (2007) could be used for budgeting purposes. Knowing that, Neil fully understood what was in the budget for him to work with.

Within the week following the storm, in a meeting organized by word-of-mouth and convened at the Welton golf course club house, the school staff came together to hear the school administrators deliver the message about continued employment. Neil and the BOE did not want the staff to worry about looking for other jobs. Neil knew what staff members were going to be worrying about: where they were going to live, replacing the things they lost, and dealing with their immediate personal affairs. In the middle of talking to the assembled staff members, Neil declined a phone call so he could finish what he was saying. He later told staff it was a call from the White House and that President Bush would simply have to wait to speak to him.

The immediate announcement affirmed there would be school next year as usual and staff still had jobs. This was a meaningful step. Knowing they did not have to go job searching allowed the principals the opportunity to focus on the tasks at hand with regard to the current school situation. The staff received the same message and experienced the same sense of relief although they questioned if it was possible to start school the following August. Jena, Nancy, and Rene all took comfort in knowing they had jobs. Jena related, "It was a relief knowing we had jobs. That was one thing we did not have to think about." Neil never doubted his own position and whether or not he had a job for himself. He immediately went into a ramped-up leadership mode to ensure everyone that the opening of school in August would happen as planned. After all, staff members and students were depending on that outcome. Neil was bound to make sure the school district took the right steps to reestablish an orderly environment and reduce people's anxieties. Some employees worried school would not be ready to open on time and staff might not receive paychecks.

At moments, both Rene and Jena thought there would be no way school could take place on the Welton school grounds because there was such destruction and mess. Neil's promise resonated in their minds and they continued to be in awe that his leadership during that difficult time made the school reopening possible. Nancy remembered Neil distinctly warning that if anyone heard about someone downtown badmouthing the way things were going, it had better not be a Welton staff member. Neil was quite adamant about maintaining an optimistic public attitude. The staff members seemed to understand that everyone was under stress, that it was a bad time, and an affirmative attitude from school staff members was going to be most helpful for the community as a whole. Nancy felt that message made people want to be positive and allowed them to act confidently. Jena felt the messages were well-received because they offered relief. The messages helped people cope because they provided direction and something to look forward to.

Neil did what he could to mitigate staff angst by offering job assurances and projecting himself as a positively committed Welton citizen and school official. At the same time Neil reassured people they would have jobs, he felt compelled to articulate an expected role the staff would have in the community. He wanted the staff to consider the bigger picture and understand how they could best influence the students, parents, and community as a whole. He envisioned the Welton school as having a major role in the recovery process. As an educational organization, a typical expectation is that staff members serve as role models both in school and in the community. Neil knew that educators expected students to exhibit appropriate behavior. Therefore, and in this case especially, staff were expected to model appropriate behavior. Specifically, Neil was adamant that staff members project an uplifting and encouraging attitude.

He knew people were in for some bad times and that certain days would be harder than others. Neil stated, "I asked staff to do what they could to keep their public face and outlook positive and confident. Anything less upbeat was to be dealt with at home and kept as private as possible." The administrators anticipated that students would look up to the adults around them and sense ill feelings or negativity. Neil felt proud of the Welton school staff because this ever-so-important expectation was faithfully carried out.

Study participants who worked in the school system recalled the message requesting a positive public face. They respected Neil's appeal and believed it was especially significant for people beginning the healing process. It gave staff members a task to focus on. Everyone experienced a roller coaster of emotions with good days and bad days. There were moments where everything seemed to click and have flow and there were moments when nobody felt good about anything. Little did the staff know that Neil experienced these emotions as well, including second guessing himself regarding decisions he made in the process of leading the school organization forward.

Despite the promise of continued employment with the school district, two staff members decided to leave Welton. Their reasons for leaving were understandable to the administration. One teacher left because he was eventually going to leave anyway. He was engaged to be married and had plans to move closer to where his fiancé lived. The tornado simply advanced his decision about the timing of the move. The other staff member was a teacher who was very young and had no financial equity built up in his own property. Rebuilding was less of an option for him and he just did not think he could handle working through it. So for him, leaving was a practical decision.

For all the study participants, school had been their life. They understood how to do school. It was their chosen career and all they had known. For example, Rachel grew up with a teacher-mother. She spent many of her childhood years tagging along with her mother to school during evenings and weekends for activities. Rachel remembered spending a great deal of time at the school with her mother helping her organize her classroom, creating bulletin boards and labeling classroom materials. Rachel chuckled, “Being at the school was our life. My family’s friends were also in the business and we just knew how to do school.” Rachel’s friends were usually the children of other educators. For staff members and their children, their connectivity to the school was a major part of who they were and what they did. So for them it was a huge relief not to have to wonder if that part of their lives would be replaced. They looked forward to the restoration of something tangible.

Given the destruction that occurred and the hardships community members were beginning to endure, the administrators and the BOE proposed a tentative recovery plan. The plan included three distinct steps: a) get closure on current school year; b) start school on time in August; and c) rebuild the school. The three steps were completed in order and the leaders did not move to step two until step one was completed. Likewise, they did not move ahead to step three until step two was achieved.

### **Closure on the School Year**

The first step in the three-step plan was getting closure on the current school year. There were two weeks left in the school year when the tornado destroyed Welton. At that point in May, many high school students had earned the privilege of participating in various league and state-level competitions, and there was a class of seniors who needed to graduate. Neil was

adamant that just because the facilities were destroyed, it did not mean the school district was relieved of its obligation to complete the school year. Classes were suspended and teachers were left to decide how to figure student grades. Neil described the task left up to the teachers: “Some teachers averaged all grades up until the time of the storm. Some teachers offered the benefit of any doubt and rounded grades up. Teachers figured out how that part would be taken care of.” Neil trusted the teachers’ judgment.

Former students remembered having activities to participate in. Some had earned spots in state level competitions in golf and track. Even though they had no uniforms or equipment, they intended to finish events they had qualified to participate in. However, without needed materials such as clothing, shoes, and equipment, they would not have been able to participate. Doug remembered, “We had nothing. We couldn’t compete like we were. So Neil figured it out and got the help we needed.” Neil used his connections across the state to articulate the district needs. Vendors reached out from across the nation to donate track uniforms, shoes, and track and golfing equipment. Welton students indeed ended up having the necessary equipment to compete in their various final activities that school year.

Rachel explained that participating in the events was a relief. The competitions were activities that were familiar and felt normal. In some cases, these were the only moments Welton students had to come together since the storm. Since so many families were displaced and relocated, and daily classes were no longer in session, coming together for these events provided relief and connectedness. Students were always excited to see each other and share experiences when these opportunities were embraced and carried out.

Rachel remembered some of the immediate responses from people who did not live in Welton. Rachel conveyed, “There were many acts of kindness and support for the school and community members of Welton.” Some of these acts were donations of supplies that ranged from track uniforms and equipment to school vehicles and food for teams. Rachel and Doug both participated in track. Though neither of them loved this sport, they relished the connectedness they felt joining their peers. The league track meet held that May was hosted in a neighboring town. Doug and Rachel remembered the moment their team bus pulled up to the edge of host town’s sunken stadium. Rachel remembered, “We stepped off that bus in our brand new uniforms and new shoes, all of which had been donated just days before.” As the Welton athletes stepped off the bus, the stadium crowd, consisting of spectators and opposing teams, stood in their honor and applauded their arrival. Rachel and Doug described this occurrence as heartfelt support in Welton’s honor. With a bit of sentiment in her voice, Rachel said, “It was cool. It was really cool.” It brought tears to their eyes when it happened. It brought tears to their eyes when they recalled this memory during our conversations.

That May, Doug went on to qualify for state-level competition in track-running hurdles which was his least favorite event in his least favorite sport. He earned second place at the state competition that spring. “I took second place. At state.” It gave him quite a sense of pride and accomplishment to come from the adversity of the destruction to the glory of a silver medal.

Mid-May meant graduation time in Welton. Without a facility to host the graduation, the ceremony was in question. Several neighboring communities generously offered their venues to the Welton school district to host the graduation ceremony. Several surrounding, small town school districts offered their gymnasiums and auditoriums for Welton to use. In the end, the

Welton administration decided it was important to keep the ceremony on home territory. The Welton golf course club house was chosen as the site for the ceremony. It was the same site the school staff had gathered in earlier that month to hear the initial messages of restored jobs and an intended school opening. Nancy spoke to me of the urgent need for seating at the event. Nancy smiled at the memory but at the time it was a serious issue: “If there was going to be a meeting, there needed to be chairs. If there was going to be an event, there needed to be chairs. Once again with the planning of a graduation ceremony, there needed to be chairs.” Nancy laughed in amusement because thinking back, “It seemed that every time I turned around, I needed to be hauling chairs.” The suspension of classes, the completion of sporting events and school competitions, and the completion of graduation all stood as events that helped to bring closure to the school year, which ended May 2007.

### **The Reopening of School in August**

The second step in the three-step plan was that school would begin August 15th. As Neil described, “Step two included the knowledge that there were 88 days between the close of the last school year and the opening of the next.” That meant there were 88 days to get temporary facilities established and stocked so school would be ready to open on August 15, 2007. The administrators--Neil, Dan, and Iris--and the BOE knew the opening of school was going to be a driving factor in the rebuilding of Welton.

The biggest organizational encounter for the administrators was that everyone, including staff and students, was displaced. No one could live in the community until the temporary FEMA housing was in place. In the interim, everyone lived somewhere else. The administrators spent the larger part of the summer figuring out who lived where and with whom. The

administrators analyzed their options. One option was to use school facilities volunteered by leaders in other communities. A second option was considered. Neil reflected:

It became clear to us that a school was needed in Welton if the town was going to have a chance of getting rebuilt. People had to have a reason to come back to Welton. If school did not open in Welton on time, it would be too easy for those who left Welton to go to school in their temporary locations. In turn, it would be too easy for new residences to be established where the relocated students were going to school, which was in the surrounding small towns and multitudes of extended family residences.

The second option was to keep the school in the city of Welton.

To address the need to have school on their own turf, the Welton BOE and school administration decided to begin the school year in modular trailers provided by FEMA. In July, the Welton BOE established a temporary campus. Staff and students eventually dubbed this campus, WTHS, the Welton Temporary High School. That summer, the administration and BOE did nothing but work on step two until it was accomplished. If community members started asking about what would happen next, it was simply reiterated that step three could not be addressed until step two was completed.

During those 88 days, the administrators and the BOE worked tirelessly to get temporary facilities, furnishings, and learning materials in place so school could open on August 15. Iris described, “The BOE and administrators met at a board member’s house because he had a dining table, something few Welton families possessed at the time.” The team discussed all their options and timelines. Neil used state-wide email list serves to communicate district needs. The school received donations of books and desks. Iris realized, “We had desks on the first day of school

but no elementary-size chairs.” The chairs had been ordered but had not yet arrived. The administrators accounted for donations first so they would know what school equipment and materials they still needed to purchase.

Each administrator had his or her own system for keeping an office. Just as Neil’s pick-up truck served as a temporary central office, Dan also used his pick-up truck for his office needs. Iris used the back of her car as a mobile office to transport administrative supplies. Iris described her multiple duties:

I kept a file folder readily available so that if a vendor or donor contacted me about certain supplies, I could grab the appropriate folder and relay the specifics. I carried my household folder the same way so in case a loan or insurance company called, I could switch hats and take care of personal business too.

When such vendors and donors asked what the school district still wanted or needed, Iris was able to quickly respond.

Iris described her new summer routine. She, her husband, and son established temporary living arrangements on Iris’ parent’s family farm. Iris’ family lived all summer without television because they stayed in her in-law’s house and that was how they lived. Her son regularly listened to the news on the radio and felt his family was like the “Walton’s” television show. When Iris was in the nearby town of Quinton, she had no internet access. There were many times she enjoyed not being electronically connected. Iris said, “It was nice to go home and be done with work for the day, to be disconnected from the rest of the world. I didn’t have to hear any news on television or talk about the storm.” Iris maintained a temporary office in Osner, which she visited every day. From there she would drive to Welton and check on the

school progress. Iris would then go out to the site where she and her husband were going to build a house. Other times she met her husband for lunch. They would go to the Salvation Army, get their tray of food, sit near a tree, and have lunch. Then she would go back to her office at Osner where she had access to the internet. After checking daily on school business, she would leave for home about 6 or 7 o'clock. She found the farm peaceful because there were no messages to send, nothing to fix, and nothing to be responsible for. Iris found solace in the disconnected atmosphere that was on the family farm.

With only one week until school was supposed to begin, there was still no electricity to the site. Iris and her husband cleaned school trailers by flashlight until 11:00 p.m. many nights. There was a city-wide curfew and the lights attracted attention. The Sherriff would often come by, but recognizing Iris and her husband, allowed them to keep working.

Iris's son, John developed some emotional difficulties that summer. She explained, "He was fearful he would be made to go school somewhere that was not Welton." John wanted to be in Welton with his friends, a desire he mentioned frequently. Iris explained further: "Even though he was naturally quiet and sensitive, this was out of character for him to be vocal about it. John struggled." Iris and her husband realized it was becoming increasingly important to get John back to school so he could be reconnected with his friends. Iris's family moved into town into a FEMA trailer so her son could reestablish contact with his friends, even though the farm house they were staying in provided better housing quality. Iris and her husband knew how urgently John needed to be around his friends.

Iris made the same observation of other family's children needing to be reconnected with their peers. As families relocated into the FEMA housing area that had just been established,

people found relief in reconnecting with each other. The FEMA housing area, dubbed Femaville by community members, was nothing but trailers in dirt yards. “I saw kids playing Kick-the-Can in the dirt yards and streets. Students were so happy and relieved to see each other. Children needed to be reconnected.” Iris marveled at the simple game which served to reunite children.

The realization that children needed to be reconnected turned out to be common for all aged students--elementary, middle and high-schoolers. It was of little consequence to the care of students that they did not have computers or text books with which to begin school. Staff and students spent the first week talking, especially the elementary students. They talked about where they had relocated over the summer and what their families had done to return to Welton. Iris remembered, “It just bubbled out of them. Junior high students, it just bubbled out of them.” Speaking of all ages of students, Iris said, “There were some families that put their students in schools elsewhere because that is where they lived. There were people who wanted to hear the story once such as outsiders. But our students needed to tell their stories more often.” The fact that the talking came so easily to the children confirmed for Iris the students’ need to share their feelings and experiences.

Jena, the high school para-professional, had an experience with her own daughter that summer, similar to that which Iris described. Jena used her summer time to get personal affairs addressed such as getting her family situated with housing and transportation. Jena’s oldest daughter had returned to college. With that, Jena’s youngest daughter, Lola, did not like being at home by herself. Jena did not realize Lola’s discomfort at first. In trying to keep with routine, the family returned to town for church or they would spend time in town collaborating with the contractors building their new house. One day while visiting the construction site, Jena noted,

“Lola was extra crabby and cranky, untypical behaviors for Lola. Lola insisted on leaving, saying, ‘Let’s go. Let’s just go.’” Jena and her husband later figured out that Lola did not like being present at the site of the old house which had been destroyed by the tornado. So Lola’s parents resorted to letting her spend as little time in Welton as possible. Jena further described:

Being at the site of the tornado destruction was just too upsetting for Lola to handle so we let her find solace in other places. Once Lola had returned to school and saw her friends in Femaville, which was located directly behind our house, Lola experienced a huge sense of relief because she knew her friends were nearby. The close proximity to friends offered a sense of security for Lola. It all of a sudden occurred to me that students needed to be together and reconnected.

Even though the social needs of individual students can be different, and though Lola liked the solace of the family farm, many children demonstrated a need to be reunited with peers. The anxiety some children experienced seemed to dissipate once school started and friends reconnected with friends.

Not only were FEMA trailers provided as temporary housing for individual families, FEMA trailers also served as temporary classroom structures for the reopening of school. During the tornado, yards had been stripped of grass, trees, and plants. After debris removal, none of the replacement grass was ready and no trees had been planted. Nancy said, “Starting school in the trailers was a dusty, dirty experience. There were no trees. There were no yards. And, the wind blew all the time because there were no windbreaks.” All of the study participants commented on the bare yards, blowing dirt, and windy days. It seemed almost emblematic of the bleakness that had entered their lives.

In spite of the dirty surroundings, staff and students were eagerly anticipating reconnecting with each other on the first day. For families that had spent the summer finding housing and replenishing personal belongings, the opening of school was the first opportunity to rejoin displaced friends. The opening of school was the first opportunity people had to come together and tell their stories of where they were living and what they had done over the summer. In describing the first day of school, Neil commented, “It was a great day because we were able to rekindle relationships.” School staff agreed that starting school on time in August was very important for the community because that was when the learning part of the education recovery process began.

### **School in Session**

All of the study participants commented on the situation and condition of the trailer classrooms. The trailers had arrived with very little preparation time before the projected first day of school. As a result, staff did not have sufficient time to clean the trailers, stock them with teaching supplies, or organize their contents. Cleaning, stocking, and organizing trailers became an ongoing process, especially throughout the first year. There was no electricity until one week before the start of school. By the time August 15 arrived, the trailers did have electricity. However, only random textbook supplies were available. The school district did not yet own printers and copiers. Nancy had purchased her own computer and sometimes baked desserts for the construction crew in trade for use of the printers and copiers in the foreman’s trailer.

The classroom trailers were constructed of metal. They had metal roofs, metal siding, and metal doors. With no trees nearby, there was nothing to break the southern summer winds. Each participant commented on how extremely noisy the trailers were. It was in near-disgust

that participants remembered the conditions of the classroom trailers. If the wind got up under the roof, it would rattle and bang incessantly throughout the instructional day. In the afternoons, the south winds would increase and the wind noise was prevalent against the metal roofs. In search of quieter classrooms, teachers whose rooms were on the south side often hoped to switch rooms with people on the north. As if this discomfort was not enough, mice and skunks would get under the flooring, creating another level of misery.

As the school leader, Neil worked directly with the FEMA representatives. Neil clarified FEMA's role in the recovery process, which in part included working with the school. The Long Term Recovery Plan (LTRP) for Welton was developed through a committee organized and facilitated by FEMA. The FEMA team helped establish the community recovery team. Neil said, "FEMA was instrumental in getting this process going. FEMA did not participate in the discussion, just facilitated the conversations. I can't give enough credit to the FEMA folks who were involved. Without them, I don't know where we'd be." As expressed by all study participants, while there was frustration by staff and students over the conditions of the trailers, the availability of the trailers was appreciated by all.

On August 15th, the trailers were ready for school to begin although parts of the school campus remained unfinished. Doug and Rachel remembered there was no sod so the yard soil blew and the air was dirty and dusty like a barren wasteland. The football field had been turned into what resembled military headquarters with tents and vehicles. The field itself was ruined so there could be no practice or games. Some debris was still present and it was not a safe place to be. The gymnasium was under construction so there would be a place for basketball later in the fall.

Nancy observed that students seemed to handle the adversities associated with the trailers better than the adults. Perhaps the students were more resilient. Rachel and Doug shuddered when they recalled the harsh conditions inside the classrooms and observed they did what they had to do to make it through the routines of the day. For example, students were allowed to listen to music with headphones to help block out external noises. Additionally, students had to go outside six or seven times a day to change classes because trailers were not connected. Rachel described, “On windy days, I put my head down and forged ahead.” The desire to get to the next trailer as quickly as possible prevented students from stopping to talk with each other, an action that would have normally taken place in a school hallway or locker bay. Having two classrooms in every trailer contributed to the noise as well. Teachers went outside to observe and supervise students every hour when students changed classes. Teachers and students took breaks in the front area of the trailers because temporary benches had been provided. The benches were rickety and became rusted over the course of the three years the classroom trailers were in use. If it was sunny during the lunch period, students and staff sat outside.

Salvation Army relief efforts provided food for the community. Sandwiches were delivered every day. Salvation Army workers and school workers rolled coolers of sandwiches up the ramp of each trailer for the students and staff. The teachers remembered that students handled all of this very well. The dirt and the wind made it troublesome to go outside every day. People became weary. Without lockers or permanent storage solutions, teachers and students had to carry their belongings with them everywhere they went.

Since there were no connecting hallways or common areas such as locker bays and lunchrooms, there were minimal opportunities for staff or students to socialize. Staff and

students had to intentionally interact with each other since they were isolated inside the small trailer classrooms. Purposeful interaction and staying connected as a school community were social challenges that lasted for three years. It became typical to stay in a classroom because it was inconvenient to do otherwise. Since each trailer had two classrooms, each teacher had only one close neighbor instead of a small learning community made up of several teachers in close proximity. A conscious effort had to be made to get out of the trailer for the purpose of socializing and communicating with colleagues. What hallways once represented was significant. The significance of hallways was not apparent until they were no longer there. Hallways had served as a natural venue for spontaneous socialization. Nancy explained, “The temptation was to stay in in the trailer and stay isolated because it was easy without the presence of hallways.” Teachers and students had to resist that temptation and instead communicate with others and be seen in order to remain socially connected.

Former students Doug and Rachel remembered the heightened anticipation to reunite with other classmates at the beginning of school. Doug was a senior at the time and Rachel a sophomore. After all, friends had been living in various places away from each other throughout an entire summer. The first day of school offered another common event to bring friends together after a summer of being apart. For some, it was the first time they had seen each other since the storm. Doug and Rachel were eager to rejoin classmates and compare experiences. They were curious to hear about the details of each other’s circumstance.

On the first day of school, there were many students, teachers, and community members hugging and sharing stories. They were not alone. News crews from all over the state were present to record and report on Welton’s momentous first day back in school. The events of the

tornado seemed to draw people together, creating closeness among those who had experienced the events.

The Discovery Channel was present filming their documentary about the rebuilding of Welton. The Discovery Channel's purpose was to document the larger community recovery as well as the rebuilding processes throughout the town. Welton's eventual commitment to rebuild an energy efficient and environmentally sustainable town was largely documented by the Discovery Channel. After the first day of school and throughout the first year of recovery, the Discovery Channel maintained a high profile throughout the whole Welton community. Each of the study participants participated in the Discovery Channel documentaries in some capacity such as participating in interviews or focus groups.

For Doug, being a senior and coming to school on the first day was particularly invigorating. He always liked school and had fun socializing with friends. Doug plainly stated, "We just wanted to hang out with each other again." Doug was curious to see how sports were going to go during the upcoming school year. Doug and his basketball teammates experienced both feelings of nostalgia at returning to school as well as sadness for the school history that was lost in the destruction. Doug reminisced, "That was our gym, man. That was our hometown connection." Over the summer, many events had occurred for Doug and his classmates and they were happy and relieved to be among friends again. About 96% of the high school students returned for school that year along with about 50% of the grade school students. Doug also had college on his mind as did many of his friends.

## **Planning for the New School**

Step three in the three-step plan involved planning for the new school. Once school was in session, discussions among school leaders began about new school facilities. The administrators and the BOE considered location of the school, appearance of the school, and special features for what was anticipated to be a state-of-the-art school facility. Neil recalled that throughout the course of the three-step process, community members repeatedly asked him what they intended for the new school. People were understandably curious. People in the community wanted to know about the future but until the school leadership team was at step three, Neil did not address their questions.

Welton's disaster and education recovery would not be a short-term undertaking. Neil felt strongly that leaders could not afford the time and energy to worry about subsequent steps farther along in the process if the organization had not yet completed the first or second steps. Neil stated, "The leaders' energies needed to be focused on what was immediately pertinent. Once things had progressed to step three, the administrative team could take the longer view and spend their energy on the longer-term plan." With the new school year started and trusted staff in place, Neil could concentrate on the details of planning for the new school. What Neil described next was the process involved in making that plan.

Prior to the tornado, three small, independent school districts existed in close proximity to each other. Those school districts were Topper, Osner, and Welton. In the many years prior to the storm, there had been discussions among community members and school district administrators about the feasibility of the three independent school districts consolidating into a single district. School leaders believed consolidation made the most sense given the size,

available resources, and legislative warnings about future budget cuts. Community members resisted the idea of consolidation, claiming consolidation would not help the existence of any community.

Welton school leaders organized a meeting that included the school boards from each community. In the meeting, Welton leaders explained there would be a new school but provided no other details regarding its location and operation. However, Welton school leaders floated the idea that if the three communities could agree on common interests, then Osner and Topper could participate in the process. Welton leaders were willing to embrace the participation of the other school districts but did not want to put undue pressure on their leaders. Welton's BOE and district administration announced their intention to rebuild a school with or without the participation of Osner and Topper. Additionally, Welton leaders announced their commitment to this effort by stating that once the process was underway, they would see it through until completion. Welton leaders had no intention of starting over if Osner or Topper decided to join the process later. Neil stated in the meeting, "We are only looking forward. We are not looking back." Once Welton leaders started making decisions, they had no intention of going back on those decisions.

At the time of the three-communities meeting, neither Osner nor Topper expressed any interest in participating in the school consolidation. When the Welton BOE decided to move forward, there was every intention for the new school to be affiliated with the Welton school district. The Welton BOE and administrators only started to consider their options once they decided they were going to replace the facilities. However, when the Welton administrators analyzed the situation, they realized that without any buildings, housing, or businesses in town,

there was not much community appeal. The leaders had to figure out what might attract new people to move to Welton. The Welton administrative team and BOE recognized that many small towns along the same corridor throughout this Midwestern state closely resembled each other. Neil elaborated: “One town looks like another. Each town has a school and those schools all look like other schools.” The Welton leaders decided if they really wanted people to stop and take a look and give consideration to moving whole families to Welton to live and work, the town would have to have something different than any other town. Neil likened it to buying a car: “It had to be a better deal. It had to be an upgrade.” To make Welton a better deal, the facilities not only had to be better, they had to be different. At Neil’s urging, Welton’s community leaders adopted the idea of such a transformation. Concepts such as wider sidewalks in downtown were considered to encourage more walking, less driving, and increased social centers in the community’s business district. From this point on, community leaders approached everything from the perspective of creating environments and amenities that were not only different from what other communities had to offer but qualitatively more attractive to families and commerce.

In moving forward with the rebuilding and transformational concepts, Welton’s administrators and BOE worked to identify possible barriers to achieving the unique outcome they envisioned. Simply being rural and small was identified as a barrier. The state legislature had been hinting at shrinking budgets which might demand collaboration among small school districts or at least the sharing of resources. Neil described most rural communities as dying a slow death. For the Welton community, the tornado accelerated the death of the town. Welton went from dying a slow death to a quick death, a merciful ending to an inevitable outcome.

The Welton administrators and BOE considered a range of possible futures, brainstorming about the details of different scenarios. The team deliberated over how to have long term success in a thriving community instead of simply replacing the old structures and settling for survival. The team could have chosen to replace structures identical to what had existed before the tornado. According to Neil, “The team felt the community would have the same school as before, the same issues as before, and they would have nothing better than the community had before.” Neil continued, “Rebuilding could have been completed as quickly and as cheaply as possible. And when completed, Welton would have been the same as before and then it would die a slow death all over again.” This was a pivotal realization for the team.

The Welton team desired nothing less than a thriving community and the long-term benefits associated with a thriving community. Therefore, the team’s next step was to identify and articulate what a thriving community would demand. The team identified that in order to thrive, they needed to create a welcoming school. To create a welcoming school, they needed to address the barriers that would keep returning and potentially new community members and students from wanting to attend. They asked themselves what they could do as a school community to create a welcoming environment to attract Topper and Osner students and families. Neil related, “In places where consolidation has taken place, the barriers can be things like the school name, the school colors, and the school mascot.” The Welton BOE had the foresight to know if they wanted to attract people to the school and make it welcoming, they would need to remove such barriers. Neil continued to explain the group’s thinking: “So they did not build back Welton High School, with the same name, same mascot, and the same school colors. Welton then instead built a school with a new name, a new mascot, and new school

colors". The Welton BOE made that commitment without any of the other communities expressing interest in attending school in Welton. That is when the Topper BOE suggested working on a consolidation plan and the Osner BOE suggested working on a cooperative agreement. The students of Topper and Osner helped pick the school colors. That was the beginning of what is now Kingston County schools.

### **Personal Adversities Continue**

School began on time in August. Students reconnected with peers and students and teachers were relieved to get back into the habitual rhythms of school. Even though the school building itself was not familiar, going through the motions of school was a familiar process. Returning to school allowed teachers and students to start new routines. Given what everyone had recently gone through, having any routine was a relief. School administrators and teachers did what they could to keep the focus on student learning. Although not every teacher had the teaching materials he or she needed, students understood that getting school operational again was going to be up and down. Doug thought the first two months of getting started were the most difficult with regard to lacking supplies and reestablishing school routines. Staff and students both experienced periods of maladjustment and anxiety. No one thought any person was more maladjusted than the next. Teachers made special efforts to include each other in lunch gatherings and passing conversations. Students became used to hauling all of their belongings with them in backpacks and duffle bags everywhere they went. Nancy described the weariness that came from not having permanent facilities such as lockers for students or bookshelves for teachers in classrooms.

New students moving into to the community had only heard stories about the hardships others had endured but had not experienced them first hand. Newcomers enjoyed hearing the tales of loss and displacement but one time was enough. On the other hand, students who had been through the misfortunes had a need to tell and retell their stories to people who would listen and could relate to their maladies. At some point in the recovery years, nearly every participant grew tired of telling their story. At times, some would just say, “No. I don’t want to tell it again.” Part of the weariness came from the adversities they had endured. Part of the weariness came from telling their story over and over again.

Teachers did what they could to mitigate chaos in the trailers. Since there were two classrooms for each trailer, it was easy for one class to distract the other group. Teachers and students enjoyed focusing on academic content and being productive. As the school year progressed, outside support continued. People and groups from across the nation brought donated items such as teaching supplies or food for the community. Vendors continued to donate sporting equipment and uniforms. Special interest groups came into the community to present school assemblies honoring the citizens of Welton and provide moments of entertainment, a bit of diversion from their unpleasant reality.

Throughout the first year, school staff recalled approximately one assembly per week, sometimes more. Assemblies consisted of magic tricks, choirs, or Native Americans offering dedications that honored the staff and students. Nancy remembered the internal struggle she faced between wanting to be grateful but wanting to move on. Not only had the tornado been a disruption, in the act of trying to move on gestures of giving such as assemblies and dedications, too, became disruptions. Nancy described her conflict, “I wanted to be grateful for the kindness

of others. But having to accept someone else's idea of giving wasn't always what I needed. It was nice. But I preferred to be more independent from that." The gifts of assemblies, donations, and ceremonies were appreciated, but such gestures were not necessarily what everyone desired for moving on. The disruptions were a challenge to teachers who were trying to keep a focus on teaching and learning.

Disruptions to teaching and learning happened in various ways. The Discovery Channel crews were a major presence in the community and schools throughout the first year. Again, their presence and purpose—documenting the Welton's recovery—was understood and appreciated, however, the disruptions to teaching and learning were prolonged. Instructional staff described their constant presence within the community and schools, often to the point where television crews freely entered classrooms. At other times, architects would sometimes come into the schools seeking student input about the new building. The presence of the news and television crews was tolerated because it was keeping an important light on Welton's progress. Keeping Welton in the public eye eventually had partial influence on the rebuilding of the school and the town.

Nancy recalled what one particular teacher colleague confided in her. The presence of the outside entities represented positive intentions, but the continued chaos and interruptions became too much for her colleague. The colleague was weary from attending assemblies, openings, and giveaways. The colleague was concerned he was cheating his students by playing to the disruptions and not getting to his lesson plans some days. Nancy explained, "I just encouraged my colleague to go with the flow, that some of the disruptions might in turn be helpful for students as they celebrate moving on." Celebrating for each other was important.

Support counselors came to the school frequently to meet with students during lunch and support their emotional needs as necessary. Nancy, Rene, and Jena remembered staff members being encouraged to let students talk if they needed to and all staff members were encouraged to do the same. Counselors told teachers it was acceptable and appropriate to set academics aside if the emotion of the moment was going to hinder any learning. Because junior high students tend to be natural talkers, this task came easily to them and they were encouraged to share their emotions with their teachers, peers, and counselors. Jena remembered discussions with junior high students. Jena said, “The students asked me if I was afraid of storms and loud noises. I just said, ‘yes’ giving a nod. It seemed to give students comfort to find some adults shared similar emotions.” Students did talk to their teachers frequently, especially during the first year after the storm.

Some Welton families had moved away temporarily then returned later when their permanent housing had been completed. Their children had not had the same opportunities to talk out their emotions and grieve and heal in the same way those students who had stayed in Welton did. Iris said one class of third graders had talked out their emotions repeatedly. Those students had very much reengaged in school. However, in October when another family had moved back, that student had not had the chance to talk about his emotions related to the tornado to the degree that the rest of the class had. The class would be engaged in something academic and a newly returned student would declare being frightened of a storm, so the teacher in turn spent a lot of time again letting students talk about their feelings. Most students had processed their emotions and were able to set their emotions aside. But one student having a personal struggle brought it back again. As Iris said, “Talking about their feelings was just part of the

healing.” High school students Doug and Rachel remembered that teachers embraced their needs and let them talk if needed. There was no blame on the students for the disruption caused by needing to talk. The opportunity to process emotions was needed repeatedly. Even the teachers, at times, had a difficult time focusing on teaching. Talking about their emotions helped the teachers as well.

Staff members were slightly concerned about the potential for students to have PTSD or display symptoms related to PTSD. Teachers were concerned when students demonstrated fear of oncoming storms. Students became edgy and needed to be encouraged and supported by staff when potentially traumatic weather was near. In that regard, the need for counseling for students throughout the school year was recognized. Staff was encouraged to embrace students when they were emotionally affected. Iris explained that a few students had difficulty reengaging in academics when storms were imminent. The students who struggled to reengage seemed to have had a more intense experience with the tornado than others. Those students’ demonstrations of stress symptoms were more prevalent. Iris stated, “Those were also the students who could barely bring themselves to attend school if there was any chance of a tornado even into the next spring.” The students who struggled tended to want to check on the weather and call it up on the computer. When students saw a thunderhead in the sky, they wanted to see where it was going via the online weather maps. At track meets the next spring, some students became noticeably uneasy if there was a chance of a storm or if there was a suspicious looking sky. The track team left competitive meets early a couple of times. The coaches did not make athletes attend the last competitive events if the weather made them nervous. Iris thought the staff was very attentive to

the students' needs in that way. There were adults who had the same struggle reengaging and needed the same considerations for healing.

Rene recalled that students needed the assurance that the school had a plan, had safe places to shelter, and that everything was going to be alright. Rene rationalized to herself that there was a reason she survived the storm and she was going to continue to be alright. Rene explained, "I did not worry as much as others about the existing shelters and emergency plans." Rene believed she had moved on to the next level of recovery in that regard. Teachers had to be empathetic to lead students through subsequent storms or even just loud wind in noisy trailers. Rene said there were times when she was personally caught off guard as thunderstorms and storm warnings triggered a spontaneous emotional response. Rene stated, "In order for teachers to be strong for the students, we had to suppress our own emotions for the moment." Counselors were able to provide support for staff as well as students experiencing the difficulty of dealing with emotions. There were times when teachers had to stop what they were doing to meet with students aside who were having trouble with the thunderstorms and tornado warnings to assure them things would be alright. A few times when loud thunderstorms came through some students would scream and teachers needed to calm them. For some struggling students, talking to a reassuring adult helped settle their fears. For other students, listening to music helped drown out the sound of the wind as well as the sound of the rattling trailers. There were some students who had not experienced the tornado but there had been enough communication among everyone they understood it. Students inexperienced with the storm were less traumatically affected by subsequent storms than others who directly experienced it. This was the case for student Rachel who had been in Alsup at the forensics competition on the night of the storm.

Younger elementary students handled their emotions in different ways than middle school students did. Iris explained what it was like to watch preschool children during their in-class pretend play. The young children did not play traditional kitchen and community member roles in their dramatic play time. Instead they played tornado. Iris remembered walking into the preschool classroom and seeing all of the little girls underneath a wooden table. The children made loud siren noises and told their teacher, "Hurry and get under the table so you do not blow away." The teacher looked at Iris and explained the students played tornado about once or twice a week. They pretended to pack their safety bags. Iris continued, "Students would be engaged in other pretend play, talking and playing in the kitchen, then all of the sudden one student would start the siren sound and they would all get under the table." The students remained in their hiding positions until someone told them it was alright to come out. The transformed pretend play was what they knew to do.

Young children's perceptions of the effects of the storm were varied. In the year after the storm, as families were beginning to get their personal property replaced and reactivated, a cartoon network changed its television programming. One preschool girl thought it was because the tornado blew away the cartoon. Staff noticed the primary students played a lot surviving-the-tornado and digging-people-out. On the playground, students pretended the jungle gym was a house and they were rescuing each other from the house. The new forms of pretend play seemed to be the young children's method for dealing with their emotions.

Doug remembered there was always a counseling opportunity if someone was having a bad day. At times students might stop and question why this horrible event had happened to them. Doug said, "All of us had a bad day at some time or another. Some of my friends even

questioned God and wondered why God would allow something this destructive to happen to us.” The regular school counselor was always available. There were additional outside supports but Doug mostly remembered situations being handled internally. All teachers were helpful. If students felt they needed someone else, the teacher would help them find the support they needed. Doug experienced the most solace with his best friend’s mom, the elementary principal, Iris. Doug felt students’ needs were met for the circumstances which were present. He felt things had been exceptionally well-addressed.

The first storms in the fall were unnerving for some students. Students in the high school paid a lot of attention to the weather. They would get online and check the weather even if the weather was not going to be severe. In particular, one very windy storm came through town. The wind caused the trailers to be especially noisy. There was a lot of rain. Jena observed, “The mood of the students and the staff changed instantly.” Reasonably, everyone knew the storm was not threatening, but with the emotion that had been stirred up, teachers knew they would not be able to focus on the lesson. The teachers had to help students work through their emotions triggered by this storm. Until the storm passed, no academics occurred because everyone was just so uptight. Jena clarified, “It did not affect me as much as it did the others, because I had not been in Welton the night of the tornado. Even several years later, students would check the weather whenever it was questionable.” Students would not have to say anything. Jena said, “I could see the angst in their faces.” Educators seemed to remain in a constant state of flex to address students’ emotional needs throughout the recovery.

Doug described himself as an exception to his peers regarding a fear of storms. Doug was not afraid of the subsequent storms and they do not startle him. In fact, he has an attraction

to storms. Doug emphasized, “I love storms. I got it from my mom. Her fascination for storms developed at an early age as well.” He found storms on the Great Plains interesting to track and amazing to observe. Doug enjoys watching the clouds build and change colors while winds shift and take new direction. Unlike some of his peers, Doug does not experience anxiety at the approach of severe storms. Still, he understands his peers’ angst.

School staff paid close attention to students as well as other staff. If staff perceived that anyone needed any extra attention, they were prepared to give it. Storms were not the only external triggers which made students uneasy. Memories could be triggered in the least expected ways. A train passed by the football field one evening during a game. The train whistle blew and the locomotive roared down the tracks. The roar of the tornado was described to be comparable to “ten times the sound of quickly passing train,” according to Doug. Some of the students remembered that distinct sound of the tornado and were instantly rattled as they remembered their experience in surviving the storm. Some students cried, or were otherwise visibly uneasy. A person might expect such a reaction during a storm, but not necessarily for the passing of the train. In those anxious times, students needed comfort and reassurances. Students looked for an adult to be with them to tell them everything was going to be alright and that there was nothing to worry about. The students were comforted by being able to verbalize their emotional needs with trusted adults. Students needed to talk about what they were feeling and why they were feeling that particular emotion. Students also needed reassurances that it is not bad to need those comforts and reassurances.

Some adults experienced the same struggles as students did during the process of recovery. For adults, the easy thing to do was to move away. Daily activities are not easy in a

recovery. Neil recalled a number of thoughts that went through his mind at any given time, “I lost everything. I have an insurance check. I’ve got a job. I can move to another town.” When weariness set in and the thought of moving crossed his mind, he additionally thought, “I don’t have to see everything or clean anything, I don’t have to rebuild, I can just start my life over. I’m done. I’m emotionally drained.” Staying was hard because recovery was a difficult process. Staying meant waking up day after day to the labor, dirt, and slow progress of recovery. Recovery is difficult and it wears on people in the long term. Neil explained, “It was hard to watch grown men who are educated and who were respected go to frustration and tears because they felt they could not face work any longer.” It was important for staff members and community members to support one another regardless of their roles: colleagues, friends, or clergy. Neil was compelled to meet all people’s needs the best way he could.

Neil remembered the particular struggles of one colleague who experienced some emotionally low times. It was a teacher who withdrew from his co-workers. As some months passed and as others reached out, the teacher very slowly started to reconnect in positive ways with his co-workers such as having lunch together and socializing. The teacher began to reengage with other teachers and his demeanor become more vibrant. That teacher is still a teacher at the school today. Staff members perceived that teacher is content to be in Welton and is now glad he stayed.

Beyond meeting the emotional needs of students, efforts were made to keep the focus on learning. School staff did what they could to encourage new learning routines. Staff did what they could to acquire and distribute new teaching materials. Students like Rachel and Doug recognized the efforts set forth by the school administration and teachers.

As the seasons changed, so too did the adversities. In the fall there were skunks and mice under the floors. In December, pipes had frozen and there was no water. Doug participated in a wood working class. He described the primitive-like space, “The wood-working classroom initially began with a tarp with four poles under it. So, the weather influenced what we might work on that day.” Since the school did not have book shelves, that was one project which could be integrated into the woodworking class. Doug and his wood working classmates made whatever they could to help the school replace some materials. The wood-working students laughed about it at the time but such projects addressed a real need for the school community. Adversities seemed to subside after the first few months. Teachers had established where they were personally going to live or if they were going to rebuild. Housing markets grew in the surrounding small towns and moving was still an prevalent option for some to consider. Rebuilding within Welton was also taking place. People were figuring out where and how they were going to live.

### **Looking Back on the First Year of School**

Many challenges forced community members to be creative with resources. Communication was a major challenge in the months after the storm. In the beginning some cell phone text messaging features were donated to Welton community members by a company. Once cell phone operations were reestablished, people used mass texting alerts to communicate about community happenings. Before the reestablishment of cell phone usage, messages had been posted at a community gathering spot by the local grocery store. Messages were posted on a yellow piece of paper. The messages came from county and city leaders. Messages were also posted from organizations such as churches or distributors of supplies. The tradition continues

and there remains a weekly city publication called “The Yellow Sheet,” which is distributed weekly via email.

When Neil, the school superintendent, had clarified the expectation for staff members to be optimistic role models in the community, educators had to stop, think, and be conscious about their actions. The teacher participants described the gallant efforts staff made by all staff members to remain confident throughout the recovery process. Part of that process today includes retelling the stories with the emphasis of being positive. Teachers believed it was their responsibility to remain encouraging. Teachers vested themselves because they believed being encouraging was important to the future of the children. Teachers’ optimism was a part of what helped the teachers themselves reengage in teaching the first year.

Some community members and school staff assumed assessment scores and other student achievement would decline. They did not. Iris pointed out state assessment scores after the tornado were excellent. Students took tests surrounded by many distractions such as the rattling buildings. Students are credited with being far more resilient than adults. They were likely less bothered by the wind and the noise than the adult staff members.

Teenagers were entrusted with unusual responsibility. Many high school students had to deal with issues which were characterized by parents as adult issues. Students became immediate partners with their parents in some of the recovery efforts such as working, cleaning, and running errands. For example, students were expected to drive vehicles in circumstances parents would not normally have allowed. Parents gave errand lists to their emergent-driver children and asked them to make trips to the larger towns for supplies both for school and for personal use. Students were also included in focus groups and town meetings where their input

was valued. Community leaders sought students out to include their feedback in rebuilding ideas and plans. Iris elaborated, “As a mother, I believe it was possible my son got cheated out of being a child, but in the end, he grew and matured from that experience and it didn’t hurt him.” The adversities were credited for having encouraged some children to respond in mature ways.

Students were a resource to each other and they took care of each other. Students demonstrated more empathy for their peers than they did before the storm. Students protected the well-being of each other. Iris elaborated, “Sometimes the two students that did not get along at school, stood up for each other in extenuating circumstances.” Such was the case when a host track team of students was making fun of Welton students being scared of encroaching storms. At the first sign of conflict among a group of students, unlikely peers stood up for each other. Students became protective of their peers and did not stand for derogatory remarks from outsiders. Iris chuckled, “Ironically, the same five students might be arguing amongst themselves later.” In a protective manner, students did not allow others to deliver insults.

Not only were the teachers understanding of the extra care needed for students, but community parents were considerate as well. A group of parents organized a plan to deliver hot meals to the junior high school on game days. Those parents understood the school did not have a kitchen to operate out of. Instead of the usual sandwich delivered by the Salvation Army, the parents provided a hot meal that day. Sometimes the parents brought chicken and noodles and mashed potatoes. The parents coordinated the plan with Iris. Iris stated, “Good parents saw a need and took care of that need.” The hot meal was a welcomed change.

Welton community members learned to share their resources along with learning to share responsibility. One example of highly needed equipment was portable folding chairs, which

Nancy had referred to. Without permanent facilities, every event required the take down and set up of equipment to accommodate groups of people. One of the church groups salvaged old chairs from the church basement. The chairs were stored in a central location. Any community member or group could borrow the chairs simply by providing the labor to haul them away and return them.

Communication was a challenge for several months following the storm.

Communications systems were dysfunctional and computer software and student databases compromised. Figuring out how to communicate with parents was essential for administrators. The texting service helped. Administrators had to have constant updates regarding family residences and transportation needs. There were state restrictions on where school buses could go to retrieve students. The state regulations did not allow one school district's buses to pick up students within the boundary of another school district. That regulation was suspended to allow the Welton school district to reestablish its student transportation system. If Welton had a staff member living in another nearby town, that staff member drove a van, picked up students living in that town, and transported them to school every day to Welton. School office managers used pencil and paper lists and relied on verbal communication as primary methods of accounting for students and communicating with each other until other methods could be restored. Iris was able to recover some data from their student management software, but not all. Recovering such systems helped keep track of parental contact information such as cell phone numbers and temporary mailing addresses.

Like all of the study participants at one time or another, Nancy and her daughter, Rachel, participated in the Discovery Channel interviews. They felt privileged to share in the unique

opportunity this presented. Nancy and Rachel believed the interviews provided valuable feedback to the different entities that helped them in their own recovery processes. As Nancy observed, “It seemed therapeutic to tell and retell of the experience.”

The Discovery Channel crew planned many surprises for the Welton community and school during the one-year anniversary celebration. Discovery arranged for the Kansas University basketball team to visit and appear on the CBS Morning news show. Marching bands were present. Nancy said, “It really was a fun week of celebrating. It was nice.” Nancy felt the effort on behalf of visitors was genuine, gracious, and considerate. Children in the community received bicycles and games. The opening of the Quick Shop at the Dillon’s grocery store was a big deal. President Bush twice visited Welton. Nancy could not remember all of the free gift distributions and special features at the time, but they were great in number.

Neil, the superintendent, reflected on events of the first year:

It was most important for the students to be back together to feel a sense of family.

Students felt most secure in the school. It is an important part of the recovery just for students to be together and for them to be able to play, to have those friendships and to lean on each other.

With social connections in place, academics progressed. Kingston County schools did not have everything they needed to start their school year. Recovery was a tiered process of gradually acquiring the material supplies and learning environments they enjoy today.

### **What Staff and Students Learned Beyond School**

During the first few years after the tornado, the influences of the storm extended beyond the mere experience of the event and beyond settling into the business of school. Decision-

making processes and choices were affected. For some study participants, the influence was related to being cautious about going out in bad weather or deciding when to take shelter. For participants such as Doug, the storm affected how much life insurance and home owner insurance they planned to purchase. For others, the tornado experience shaped decisions about what career path to follow or what to study in college. For example, Rachel decided to learn more about trauma studies while other students chose to explore careers in journalism or video productions.

Certain experiences related to the storm taught Doug personal lessons and influenced the decisions he makes today Doug does, however, exercise more caution than he once did when tracking storms or when sheltering is needed. Having experienced an EF5 tornado, the highest windstorm rating, Doug believed he had survived the biggest tornado in history. Doug identified with the destruction caused by tornadoes in Joplin, Missouri and Moore, Oklahoma. Doug was empathetic to what others may be experiencing even now. The Joplin and Moore tornadoes were of similar strength and destructive capacity as the Welton tornado. However, the Joplin and Moore tornadoes were situated in larger metropolitan communities and wreaked even more havoc.

By the time Doug's family was in a position to consider more permanent housing in Welton, his family had grown weary and disgruntled at the flimsy structure of the FEMA trailer home and its noisy rattling features. Doug had this to say:

We had just gone through the biggest tornado in history pretty much, until Joplin, Missouri and Moore, Oklahoma. I don't even know if those were classified as big as ours or not. We had one of the biggest tornadoes in world history, I think. For

me, for instance, my parents did not have insurance, just on vehicles. We are out here living in a freakin' FEMA shelter, which sucked by the way. My parents were broke. They did not have money to rebuild. FEMA promises this and that. We were talking to United Way and some of those other organizations trying to get people money or some funding so we can even think about possibly rebuilding. We were back there in the FEMA park. No one had even started building houses yet. The FEMA park consisted of five hundred single-wide trailers. Some were really nice and some were really junky. We were thankful it was a roof over our head. It wasn't ideal, it was a place to call home and live.

Doug's lessons-learned extended beyond simply knowing when to shelter from threatening weather. For his family, the realities of not having home owner's insurance hit their pocketbook in extreme fashion. There was no financial equity accrued to facilitate rebuilding. Doug's father had returned from a tour of duty in Iraq just one year prior to the storm. The tumultuous events of the war, the storm, and financial loss took their toll on Doug's family. Doug's parents divorced although his mother still lives Welton. Doug expressed, "If we would have just had insurance, this story would have had a whole different ending." Admitting no one can be prepared for every eventuality, Doug carries property insurance that for a person his age, he might not otherwise have considered. Made cautious by experience, Doug told me, "I won't be in the position I was back then." Doug understands people cannot plan for complete destruction but feels strongly that people can be prepared.

Doug recognized that schools are in an opportune position to serve masses of people. He participated in a mission trip with a church group to help others in Joplin, Missouri when their

destruction occurred. He sensed that rural and metropolitan areas probably come together differently in times of crisis. For rural communities, the relationships appear to be more interrelated in terms of neighbors helping each other out and surrounding small communities offering help.

Rachel and Doug eventually reached a point where they did not want to talk about their experiences or feelings related to the storm. Discussing their experiences became monotonous and non-beneficial, even burdensome at times. At the same time, Doug appreciated how the state and nation came together to help Welton. With a population of approximately 2500, a community that size would be easy to ignore if it were wiped off the map. Doug stated, “I remember people fighting their way into the community for the purpose of helping with debris removal and donating supplies. It’s a great state and a great nation that takes care of its people like that.” Doug continued, “There are a lot of negative events that occur around the world and are reported in the news. Other than a little looting, I only saw the good.” Doug felt people were willing to extend themselves to offer assistance. Doug commented, “When people came with food and there was no storage to contain it or electricity to preserve it, items had to be turned away. It was difficult to both appreciate someone’s efforts and at the same time, deny them.” For Doug, it was the kind thought from another individual that meant so much.

Principals Iris and Dan spoke highly of their superintendent colleague and friend, Neil. They considered Neil an exceptionally strong leader who kept district initiatives and actions aligned with the goals set forth by the BOE and school administration. The study participants believed Neil’s leadership style of taking care of district personnel and students was the driving force behind the successful school reopening. The three administrators carried mutual respect

for each other, understanding that while they were leading a staff of people, they each had their own losses to manage and recover from. People that face such devastation need a strong leader. Iris reflected, “We were a cohesive group before, and we are now too, taking care of each other.” There was mutual respect among the three administrator friends.

### **Feeling Cheated**

Having to release emotional bonds to places which did not exist any longer left some study participants feeling embittered and slighted that social connections and routines were halted. There were social gathering locations in the old school which no longer existed in the new school. For instance, the “pit” was a seating area in the commons where only juniors and seniors gathered to socialize. It was a rite of passage to spend time in the pit. Since Rachel and her classmates were freshmen when their school was destroyed and their high school years were completed in temporary trailers, they felt cheated of the experience of being upper classmen who could gravitate to the pit with their friends. Doug and his classmates had one year of experience in the pit and missed the pit when it was no longer there. Students needed and wanted a new location to replace and host such social connections. Eventually, that location became the new halls of the new school. Until then, students did not have a sense of the school being their own.

Students appreciated the facilities they had whether it was the noisy trailers or the state of the art new school once it was built. Jena reflected, “In the first year at the newly built high school, students missed decorating their lockers. Students were not allowed to personalize their own spaces during the first year because school personnel wanted the new school building to appear clean and orderly.” Jena felt strongly that in this way, students missed out on an opportunity to develop school identity or show school pride especially during the first year.

Given the opportunity, Jena thought students would have modeled more school spirit and ownership of the school. One year after the opening of the new school, more overt student expressions of school identity and spirit came to be. Students were then permitted to decorate their lockers and post school colors and messages around the school. Jena sensed students appreciated what they had in the clean, attractive, and accommodating school. Jena thought letting students identify with their new surroundings by decorating and demonstrating their school pride could have been an important aspect of recovery.

New experiences add new perspectives. Jena would never had imagined the importance of students showing school spirit by decorating lockers had her own daughter not said something. Jena's eighth grade daughter, Lola, realized how easily people accepted their environment and material surroundings as permanent. As temporary school surroundings were replaced with more permanent structures, students went through a process of identifying with their surroundings by reclaiming new social routines and connections. As the football games and traditional school events such as homecoming took place, the establishment of new routines helped students and staff connect to their present lives.

Lola's perspective was altered for having experienced events of the tornado. In her new wisdom, Lola rationalized to her mother, "I guess I've gone through the worst of it, so anything else that comes along, isn't going to be as bad." Sometime after the tornado, Lola was watching television and laughing at an EF 1 tornado on the east coast. "That's just a little puff of wind" Lola told her mother, chuckling, Eighth grade is a young age to be cognizant of such a perspective.

Graduates who attended high school in the trailers and never graduated from their own permanent high school building did not all come back to Welton for reunions. These former students felt there was nothing to come back to, particularly if they no longer had family living in Welton. For these alumni, there was not a school building filled with nostalgia for a sports team or a graduating class. Their schools had been trailers and now those trailers were gone. Some Kingston County School graduates had younger siblings who were privileged to attend and graduate from the new high school building.

In Welton, disaster recovery was a slow and difficult process. Small acts of assistance such as donations of supplies, manual labor, and mental health support added up to a big difference in the end. Neil recollected what he and his wife experienced living in a recreational vehicle on the edge of town. Their life had become days of waking up at sun rise, working until night time, and doing dirty laborious work all day. The next day they did it all again. Mindless repetition was not what Neil and his wife were used to. Neil described the monotony: "Ten days turned into 20 days. Twenty days turned into 40 days and 60 days." The realization there was not a front porch for socializing and relaxing was a harsh reality for many people in town. There was not a back yard or grill for hamburger cookouts with friends. For Neil and his wife, their only diversion was to leave town, go to a nearby metropolitan area, rent a hotel room, and go out to dinner or a show. Neil described the relief: "For a moment we could pretend we did not have to go back to the dirty work yet to be done." It became important to create social situations and outings which would have at one time been typical.

The community golf course was not affected by the storm. However, during the first year of recovery, few community members frequented the course because there was too much

recovery work to be done and little time for leisurely activities. Even the process to begin a task was overwhelming. Neil described how some people felt defeated at some simple house hold tasks before they ever got started. Neil elaborated about the exasperation: “If people needed to build a fence, they probably needed tools. If they needed tools, they probably had to borrow tools, taking the time to find someone who had the appropriate tool.” The problem was compounded by living in a FEMA trailer in which there was little space available to store new material goods once people started to acquire them. It was not the usual way of doing things so people felt a bit maladjusted because surroundings were not yet permanent.

Neil reflected on important lessons about prioritizing actions in disaster recovery. One important lesson was to consult with someone who has experienced destruction. Neil explained, “It would be helpful to hear from someone who had lived it, walked it, done it. At every level, an educator, a city leader, a politician, people need different things.” If future destruction happened to a school district from a flood or tornado and the district had to deal with the federal government and FEMA on recovery matters, Neil recommended the school leader consult with someone who had prior experience working with FEMA. Neil likened his recovery experiences with FEMA to playing the game of Monopoly:

If two people sat down and started playing Monopoly but one person had never played the game or did not know the rules, that person would be making moves without meaning. That person might not understand the consequences of those actions including spending more money on supplies than necessary. However, if the rules could be explained first and the game participants could understand the possible consequences of each action, game participants may indeed make different choices based on better desired

outcomes. Disaster recovery is like playing the game of Monopoly; a person will give more consideration about a decision and spend their available money more wisely if they understand the repercussions of their actions. Otherwise people in recovery are just rolling the dice, moving, and taking chances.

Recovery leaders would benefit greatly from having a consultant who can provide feedback about possible decisions.

### **Good Things Emerged**

Prior to the storm, Doug was aware that school consolidation discussions had taken place among school and community leaders for many years. Doug was resentful that no form of consolidation took place in the years prior to the storm. Doug also resented that no form of consolidation took place in the year immediately after the storm. Doug believed schools that consolidated had more resources and larger student enrollments. More students meant a larger pool of student talent for activities and athletics. Doug talked about how in a small town, there is a dynamic surrounding school sports. School spirit and community morale is elevated when there are winning sports seasons. After the storm, the boys basketball team seemed to overcome some of their personal adversities started winning more and school and community morale got “ten times better.”

Rachel experienced frustration with the complaints of some of her classmates. When her friends reminisced, they desired things to return to the way they once were. But Rachel understood that the past would never exist again. She joked, “Things are not like they were in the nineteenth century either. Those ideals along with the material things blew away in the big wind.” Rachel observed new passion had come from the turn of events as what seemed like a

majority had let go of old ideals. As the community made commitments to “Go Green,” students came together to create a Green Club. It was not a large group but a small group of people with a big interest in caring for the environment. Rachel also remembered the student leadership group which developed and was comprised of students interested in participating in community organizations as well as various projects related to the new school. Rachel conveyed, “For small communities, it is nice when diverse interests can be accommodated.” The unique initiatives that came about after the storm were welcomed.

In the new school, initiatives were started that might not have otherwise come to be. Doug recalled that because there was so much media presence in the community, a media center was developed. A media club provided opportunities to students to learn about and use different types of technologies. Students were able to observe real careers in action that they might not otherwise have seen, such as journalism, broadcasting, and behind-the-scenes media production. Rachel reflected, “It would have been beneficial if school officials had incorporated career studies into the daily coursework for high school students.” After all, they had unique opportunities to observe unfamiliar careers in action.

In the process of disaster and education recovery, various leaders involved community members as well as students in their meetings and plans. Architects sought input from students; community leaders sought input from teenagers. Rachel experienced activities that only some adults ever do. She was a part of a steering committee which provided feedback to architects and community organizers. Rachel stated, “I had to think like an adult.” Students and community members had opportunities to see leadership in action they would not have otherwise observed.

Discovery Channel was present in the community. The new student leadership team met with the Discovery crews about once every two weeks to provide information, feedback, and documentary opportunities. Some of the leadership students were able to attend a leadership conference that year in Chicago. Young citizens used these unique and important opportunities to integrate themselves into the new plans for their community.

Educators observed positive behavior changes in students during the first year. Students accepted responsibility for others and not just themselves. If a student noticed that a teacher had to park far away and the teacher had many things to carry, students often made the extra effort to provide assistance by loading and hauling supplies for their teachers. Manners and other good character traits became a common occurrence. Students also helped in the case where there were evening community programs scheduled in the gymnasium. Since the gym facilities were used for multiple purposes, students would help set up and take down equipment such as chairs, posters, or music program props. The audience also assisted school personnel by folding chairs and putting away equipment at the conclusion of an event. The community members knew that everybody owned a piece of the event, the action, and responsibility. The culture shift that occurred was that people demonstrated increased appreciation for the responsibilities of others such as in the set up and take down of equipment for events. It became common for any community group to call the school requesting a class of students to help set up for or run an event. Community members and school staff and students shared various responsibilities. Students were not the only ones to demonstrate behavior changes as a result of the situation. Nancy described the change in one particular colleague. Nancy delightfully described the transformation in her colleague:

There was one teacher who never liked to spend any of his own money. He was frugal, and the students knew it too. When the Joplin tornado occurred, this teacher wanted to do something charitable for that community. So he challenged the students to make monetary donations. And whatever the students donated, the teacher was going to match the pot. None of us could believe he was going to do it. He just didn't like to spend his own money. But he did. He ended up donating about a thousand dollars of his own money to the Joplin, community recovery efforts.

Nancy laughed as she told of the change that took place in her colleague.

New opportunities for school staff and students emerged following the storm's destruction and throughout the recovery process, perhaps out of need or new awareness. The school building itself was designed to be state of the art. It is self-sustaining, welcoming, and filled with natural light. Included on the school grounds are facilities for collecting and using rain water. All of the school's watering needs are taken care of by recycling rain water. All classrooms have south facing views. Teachers explained the natural sun light elevates everyone's mood. The new building has two gymnasiums. Two athletic venues allow certain athletic and activity functions to occur within the district. As is typical at school functions, events such as basketball tournaments must be hosted in facilities where there are two gymnasiums.

Counseling topics and support are more prevalent within the classrooms. There are direct efforts to teach and sustain mental health wellness issues. Rene recalled, "The student leadership group which developed in the first year after the storm not only facilitated teens reaching out into

the community through service projects, they used peer mentoring to help support students' social and emotional needs." Children helping children became an accessed resource.

Iris described school staff and students as being "settled in" and that "teaching and learning are at optimal levels." She declared, "We are a better than we were in 2007 as educators and have improved facilities. Our strong education base is only stronger." Iris perceived the staff as being a strong cohesive staff. The staff was cohesive before but it is even stronger now.

### **Rebuilt School**

Media presence was helpful in rebuilding the school. Media coverage allowed Welton to stay in the public eye long enough to receive corporate donations. The Welton community also received exposure because of its green initiative. Had it not been for such publicity and financial support, it is unlikely the new school would have been rebuilt in the high-tech, ecologically sensitive fashion it was. Neil expanded, "You have to remember that our disaster happened right after Hurricane Katrina hit the gulf. That was a political disaster." Neil continued, "When we had our event, it was very important to FEMA and the federal government that our recovery went better than at Katrina." Neil reasoned, "Our disaster was fixable...our community was only one square mile, not hundreds of miles of coastline. Therefore, I think the media attention and the commitment from Washington was in our favor." All of the study participants believed the three year delay in rebuilding the school was worth the wait. The extra media attention and resulting financial contributions combined to create an appealing high-tech school, a desirable feature wanted by the small community.

Neil was complimentary of working with FEMA who had a long-term presence throughout the recovery. However, Neil made decisions without being able to consult with an

experienced counterpart who could assist in recognizing possible ramifications of those decisions. The FEMA team was a large group. When Neil met with the group, each individual wanted something from Neil in the way of choices or feedback. Neil felt like he was in an unfair game of Monopoly because he was always outnumbered, even if by people who had the best intentions. In Welton, it was often the superintendent, the secretary, or the board clerk making phone calls, taking messages, and providing feedback to the many people in the FEMA group. The Kingston County school BOE and the administrators became experienced in the disaster recovery and education recovery process. Neil believed if an identical situation happened to another district, he would provide consultation services to help that school district. He would not want to tell the others what to do. Rather, Neil would advise other leaders about what to consider and encourage them how to handle various matters and decisions. Neil would help them identify lists of possible options. He would encourage leaders to make whatever decisions they wanted, guiding them to understand the implications of each decision. Collaborating as a team with advisement from experienced consultants would likely produce more efficient and effective outcomes at each decision juncture. It would be preferable to guessing all the time, as Neil reflected he had done. As Neil said, “A person or an organization will not make all the best decisions with the most efficient outcomes, but I would like to help others get as many of those things right as they possibly can.” However, Neil had no regrets about the decisions he made.

Kingston County Schools were built to be contemporary school facilities which include advanced equipment and high-tech surroundings. Once the new school opened, Kingston County school district moved forward with a one-to-one lap top computer initiative. Prior to the storm, the newest facility had been a gymnasium built in 1949. There was computer technology

available to staff and students, but not at a high ratio. Current school staff described themselves as better, more effective teachers because they are wiser, more empathetic, and highly focused on student learning, achievement, and meeting student needs. Neil stated, “From a people perspective, we just keep on keeping on. But what we have and what we are surrounded by is a lot better than what we had before.” The staff members have high regard for each other’s vision and fortitude during the recovery process.

Doug and Rachel, the two former student participants, spoke highly of the school administration, the BOE, and the school staff. Upon their reflection, Doug and Rachel believed the decision makers made good choices about the direction and goals for education recovery. Doug and Rachel spoke of the hard work they observed from others that benefited the Kingston County schools. Doug stated, “Neil, he could have given up at any time. He could have left town, found a new home somewhere else. But he didn’t.” Doug excitedly continued, “And now, because of what all the administrators did and the school board, Welton has a great school, and a great town.” Rachel also stated, “I know the school administrators had their own problems to deal with. But they didn’t give up on us.” Doug and Rachel each were grateful the school and community leaders did not give up on rebuilding the school and rebuilding the town.

The BOE and the school administration maintained an active presence in the community through the recovery process. Study participants credited the school district as being a determining factor in the rebuilding of Welton as a town. Jena admired what the school district did for the community. She also highly respected Neil for his leadership as a school superintendent, as did the other participants. Jena reflected, “When the superintendent communicated that jobs would be protected, people’s minds were eased very early in the

process.” The early decision to reopen the school and continue employment afforded staff the chance to move forward with their own decision making opportunities much more immediately than if they would have had to wonder. Jena continued, “Perhaps if a similar disaster happened in a smaller town, other decision makers might not think it would be worth rebuilding.” Jena hoped that other communities deciding to rebuild would restart familiar activities such as reopening school. In Welton, once the BOE and administration committed to rebuilding, the superintendent engaged in discussions with investors, insurance agencies, architects, and construction companies. Neil posed the question to all stakeholders: “How can you help us select our best course of action?” It was this type of leadership and gumption which Jena credited for the successful rebuilding of Welton.

Schools were not the only organizations to have committed to rebuilding. Doug fondly recalled the beginning of a new church. Participating in the new church was a spiritually rewarding experience for Doug. Until other churches rebuilt, the new church was the one church all community members attended. All the churches came together in one new building--one tent, one roof--worshipping together. There was a weekly Sunday service where the community as a whole was invited to participate in worship services. Even after the other churches had rebuilt, Welton continued with an annual community service where all community members came together to worship in one building. Doug stated, “How cool was that?” Doug liked the feeling of community among the churches.

As Doug told his story and reminisced about his school years in Welton, some nostalgia emerged. There had been a long childhood history between Doug and the Welton gymnasium. Doug fondly recalled basketball and volleyball games played on the home court and football

games played on the home field. When the tornado destroyed those locations, there was nothing to connect the old with the new.

Attachment to place was a major factor in Doug's high school experience and self-identity. Doug felt blessed with the basketball talent. His passion for the sport rang out as he spoke. He described his friends by name and the fond memories he had about getting excited for an upcoming basketball game. It was emotionally difficult for Doug to not have a home basketball court to return to his senior year of high school. The student athletes did not want to play their sport in other communities. They wanted to play at home.

Joy intertwined with Doug's sadness and feelings of loss. Doug's class was the first class to graduate from the temporary classroom arrangement the first year after the storm. It was a big deal to his class to be known as the first class to graduate from the reopened school. The basketball team made it to the state tournament that season. At the time of the state basketball tournament, spectators filled the field house in support of Welton and the boys' basketball team. The first game in that tournament did not finish as successfully as the boys would have liked, but they were proud to have risen above the adversities caused by the storm. Doug declared, "My class wanted to be the group to make a difference and make a showing. The state tournament was a devastating loss, but an awesome experience." The media were present for their basketball tournament appearance. Doug felt support from the whole community.

Doug was appreciative of school leadership efforts and decisions. He knew the administrators worked many long hours of hard, sweaty, dirty work. The administrators were consistent and made certain the students of Welton had somewhere to go for school and activities. The school walls were not the same in structure or appearance but the relationships

were with teachers and friends. Perhaps the needs of the school leaders had been underscored by their own losses and sacrifices in the recovery process. It was uncertain if the school leaders were publicly thanked or ever felt appreciated. But Doug appreciated their efforts to reestablish school and learning for students.

Rachel was appreciative to have been afforded the opportunity to continue school in Welton. While attending school in other communities had been an option, Rachel supposed it would have been a more stressful experience. The geographical location of Welton was the one thing that did not change when everything else around it was in flux and it was good to feel anchored to a familiar place. Rachel's attachment to place helped explain why she was relieved to attend school in Welton as opposed to an alternate community setting. Rachel hoped that when others are faced with disasters like the Welton tornado, they will have the foresight to create new visions while maintaining some semblance of a community school.

In May 2014, Rachel and her graduating class will be having their first post-high school reunion. Having come from the experience of a small rural community, Rachel recognized that community is often centered on school athletics and activities. Until the new school was completed, the old school had a multi-purpose area referred to as the "gymcafetorium." The gymcafetorium was the central meeting place for a variety of events and the hub of socializing both at school during the day and for the community in the evening. Rachel explained she now assigns less meaning to places and more meaning to people because meaning to places had to be created. Meaning to people, for her, did not.

Rachel stays connected to people via social media platforms such as Facebook and Twitter. She is sad, that as a junior and a senior in high school, she did not experience the same

nostalgia toward a home gym or the pit the prior graduating classes before her experienced. Rachel chose not to obsess with how things could have been and focused instead on the present. The community feeling of high school had changed. Rachel never attended the new high school and thus does not have a high school building to return to or reminisce about. The high school building she attended her freshman year was destroyed. The trailers in which she finished her high school career have been removed. Rachel conveyed, “In a way, it seems like I was never there.” Rachel chose to focus on her relationships to people instead of her relationships to buildings.

Rachel never had concerns for her peers that anyone was so traumatized that suicide was an option. Rachel described herself as, “hands-off when it comes to trauma.” Rachel elaborated that her tendency was to remain isolated as opposed to reaching out to others. As a result of knowing that about herself, she chose Trauma Studies as a college minor. She did this to help herself be more aware of the mental health needs of others. In Trauma Studies classes, Rachel learned about trauma related to natural disaster and community perspectives. Rachel came to believe that trauma is every day and teachers, who have key access to young people, should be better trained to deal effectively with trauma. Even if the trauma is not caused by a natural disaster, it might be isolated within a family home. Rachel explained, “Intentional focus for trauma knowledge and training at the adult and community level might be warranted.” It could benefit teachers to have some basic mental health knowledge and assessment awareness. “Teachers could better help students manage the worse thing they know,” Rachel declared. The demands of community leaders-those who stepped up to help in leadership roles-required the such leaders to be away from their own families. Rachel reflected, “Community and school

leaders were doing a good job of ensuring everyone else could have self-care, but they did not need to endure the burdens of helping others in need without having their own support systems.” For the adults leading students, self-care was as important as helping each other.

Watching the adults respond in appropriate ways to students was important and helpful to students. Rene reflected on personal emotional growth as an educator and now considers situations differently than she did before the storm. After going through the entire experience of surviving the storm and working out of trailers, Rene sensed she had become a better, more attentive, teacher. As such, Rene believed she and other teachers were able to connect with students in ways they had not before. Rene stated, “I was reminded that life is precious and it is important to embrace people.” Rene knew an adult who struggled with recovery. He demonstrated a need for his colleagues to reach out to him, and they did.

Rene observed how some individuals became weary and frustrated, questioning waiting time, delays, lack of supplies, and the rationales behind certain decisions. However, Rene rested knowing the district leaders would take care of their people and continue to help the school district achieve its goals for education recovery. She stated, “I consider myself blessed to be a part of a good, strong, cohesive staff. The early message of job assurance was helpful for many of us as we were able to confidently move forward with our own family decisions.” Moving forward, not taking steps back, explained why Kingston school district had become a highly efficient school organization.

There will come a time when the students do not remember the storm or feel its wake anymore because students were so young and time is moving farther away from the experience. Iris explained people need to understand that if storm victims need to talk about the storm and its

influences, the time can be taken. However, there will come a time when people do not want to talk anymore and do not want to be reminded of that night or the difficulties that followed.

The youngest students in the school at the time of the tornado were in the early childhood preschool program. Those students were four years old at the time of the storm and are now, at the time of this writing, sixth graders in junior high. According to the teacher participants, those younger students no longer remember and do not understand what took place the night of the storm. Younger students have been told of the events of the storm and have heard explanations of the ramifications of those events. The effects on those students are not in conscious memory but include things like taking tornado drills seriously and sheltering as best as possible from storms.

To this day, adults and children take it seriously when it is time to practice sheltering for severe weather. Some adults continue to experience elevated heart rates at the thought of hearing sirens. Rene claimed, "I became nervous when it was time to practice a drill. And, that was just practice." Students who were not here understand the seriousness of preparation just because of what has been passed on to them. There is comfort for students, staff, and community members in knowing the locker rooms are FEMA approved severe weather shelters. Some community members felt compelled to include storm shelters on their personal property in plans to rebuild. Other individuals, such as Rene, supposed if they could survive an EF5 tornado in a basement, then a basement will suffice.

For the Kingston County schools, administrators credited their successful recovery to the connections people had to people. The staff believed the cohesiveness of its employees was always strong but it was even better after the storm. Iris observed that most of the teachers were

parents themselves and therefore understood the importance of being nurturing toward students. In general, educators tend to be nurturing intuitively, and that trait was demonstrated throughout the recovery. The Kingston County staff wanted to make the school environment as nurturing as possible for their students relating that the best care is what they would want for their own children.

In the few subsequent years, staff participants noted many younger people began moving back into the community. Many were graduates who had moved away then returned to Welton to work on a family farm or in a family business. Some families returned in a different capacity and some families did not come back at all. Iris noted, “The elementary school enrollment has been growing in the years following the storm. The elementary student enrollment is increasing once again since young growing families have made their way back into the Welton community.”

## CHAPTER 5

### DISCUSSION

In the methodology, I outlined my intentions to interview former students who were in high school at the time of the tornado. I did this because I believed they were the most mature group of students possible who, given their relatively advanced age, might be more cognizant of their memories and experiences compared to their younger counterparts. Unbeknownst to me, that pool of students turned out to be those whom had never attended high school in the new school building for any portion of their education. I interviewed one former student who, at the time of the storm, was a freshman and one former student who was a senior. Since the temporary FEMA trailer classrooms were in place for the three years it took for the new high school to be built, Rachel and Doug graduated from the trailers, not a school building. Since the trailers were temporary and no longer in Welton, the school Rachel and Doug graduated from no longer exists.

Narrative inquiry is a method requiring polished interviewing skills from the researcher. I have only employed this method with this study. I am not a polished narrative inquiry interviewer. This would take years to develop and master. I knew I would have to broach my study keeping in mind my lack of this developed skill. This is an important admission because the additional efforts I had to employ to elicit rich responses from participants proved to benefit the quality of this study. This novice researcher was working with practiced participants who seemed to initially give the same answers to me as they had given to someone else in previous studies of the community. However, my intuitions lead me to probe further with each participant

to encourage much more emotional and detailed responses specific to education recovery compared to other research efforts they may have participated in.

This research is not the first research to be conducted in Welton. However, at the time this study was conducted, this research was the only research narrowly focused on education recovery, specifically the teaching and learning which occurred for educators and students within the context of school, the school building, and the relationships teachers and students developed with each other. Studies that have been completed and studies that are currently being conducted have focused on the broader sociological and environmental aspects of the Welton community's rebuilding.

Each study participant told me they had participated in some way in the Discovery Channel documentary efforts.. It was evident to me that all of the participants of this study have told and retold their stories because of their quick and concise responses which, to a small degree, seemed like stock responses. I anticipated this knowing Welton had been studied during its rebuilding years. To counter this expectation, I first acknowledged the presence of prior research efforts within the community. I then emphasized the research goal of gathering more in-depth responses regarding education recovery, specifically aspect that were not researched in the other documentary efforts. I know I achieved this level of interaction with the participants because of three things I observed. The first observation was that beyond their initial quick responses, I caused deeper reflection. It was my impression that deeper probing caused each participant to reflect more intensely than perhaps they had before. I noted that when I probed further into their responses, the responses were not as reflexive, indicating a few extra seconds of reflection were required for the participants to formulate what they wanted to say. The second

observation related to the tone in their voices when they shared their emotionally charged stories. I was surprised to encounter a more intense level of emotion once a deeper reflection was evoked. Two participants could not block their tears. I suspect when a story teller gets notably emotional telling of his or her experience, the story is more raw than rehearsed. The third observation was that the participants told me so. Five of the eight participants specifically told me the experience of participating in this study and telling their story one more time helped them. The participants believed it was good to reflect back and recollect some details they had not considered in several years. For some of the participants, delicate emotions were revisited. For other participants, they felt a sense of achievement to have retold their stories without a display of uncontrollable emotion. One facet of narrative inquiry is that a transformation may occur for a participant who collaborates with a researcher to tell their story and relive his or her experience in the process.

The participants each thanked me for my research efforts. I had their approval to conduct the research. The participants supposed it would be helpful to other communities to share their stories as much as it helped them to retell their experiences. They will now be contributors to someone else's education recovery.

### **Place Attachment**

Place attachment is the theoretical framework used for this study. Place attachment is the emotional bonds human have to objects, people, places, and routines. Place attachment, the affective bond between space and the interactions individuals bring to that space, is comprised of six processes, described in the earlier literature review, that are intertwined to create the meaning assigned to place (Buttimer, 1980; Seamon, 2014). The six processes are place interaction, place

identity, place release, place creation, and place intensification. Each of the six processes was exemplified in the findings. Examples used to support each of the processes occurred in the chronological order presented in the findings. It is as if to say place interaction must occur before place identity, place identity must occur before release, and so on. The first four place attachment processes describe what places are and how they work. The last two processes describe how places can improve or decline such as when special environmental features are added to a space. Features such as golf courses and swimming pools can which improve quality of life interactions.

Characteristics of the six processes are further described below including examples of each from the findings. As described by Buttimer (1980) and Seamon (2014), the six processes are each themselves complex systems which exist independently from each other, but work together holistically to define place attachment. Findings from the study exemplify the characteristics of the six process framework and support prior research on place attachment.

Place interaction is defined as the typical happenings in a given location where individual actions and interpersonal exchanges occur. Place interaction is important to place because it is a major engine through which its users carry out their everyday lives and the place gains activities and environmental presence; the environmental features become intricately related to the interactions. In the aftermath of the Welton tornado, individual actions and social interactions, which the Welton citizens were familiar with, came to halt when the environment was severely altered. Typical interactions were suspended until new environments were established and new interactional patterns replaced previous patterns. For staff and students, there was a three-year transition period between the time old Welton was destroyed and new Welton was created.

During this interval, the new school was under design and construction. Temporary interactions took place during the three years until newer and more permanent environments were created. The temporary interactions were such things as adults finding temporary housing until new housing could be built or children playing Kick-the-Can. Temporary locations included places like FEMA housing, recreational vehicles, and extended families' homes. While living in their temporary locations, participants continued other temporary interactions such as replacing lost material items, reestablishing communication systems, and retrieving and recreating student and family data.

Place identity exists when people associated with a place adopt that place as a significant part of their existence. Place identity was especially significant for Doug and Rachel, the two former students. Place identity actualized prior to the destruction, for example, when the Welton basketball team viewed themselves as athletes representing their home town. The team longed to play their beloved sport in the hometown gymnasium. When the Welton gymnasium was destroyed, some team members believed a part of their self-identity was destroyed as well. Doug noted the feelings of personal loss of history and identity when the hometown gymnasium was no longer there. There had been a significant emotional connection to that environment--the gymnasium--prior to its destruction. Place identity was also a factor for Rachel who longed for the rite of passage into the pit, the social hub for juniors and seniors in a commons area in the destroyed school. Rachel had anticipated being a junior in high school socializing with her peers in the pit. Once the pit was gone, an important part of Rachel's association with the school was taken from her.

Place release happens when unexpected occurrences, surprises, or social encounters transpire and become more important than the place in which they occurred. The event of the tornado became more important than Welton or any participant's home. Each participant's attention turned to gratitude for the lives that were spared when the tornado destroyed most every structure in town. Participants were able to let go of attachment to place and assign more meaning to attachment to people. In the aftermath of the tornado, Doug was relieved to learn that his grandparents were not still sitting in their recliners in the living room when he discovered the massive oil drums that had landed on the chairs during the storm. Once participants learned family members were alive, and once they accepted that their homes and surroundings were destroyed, they had to let go of one set of hopes and dreams and begin envisioning new ones. The continuity of daily business in spaces was disturbed, memories were closed off. Expectations for possible future interactions in those spaces were altered. Doug had to let go of his dreams of playing basketball in the hometown gymnasium and focus his thoughts on where he would play basketball next. Study participants rebuilt homes knowing the new versions of would not replicate the homes they had before the tornado but represent something new, different, and perhaps even better.

The Welton BOE and administrators had made a conscious decision to rebuild a school that was different and not simply a replacement of the school that existed before the storm. To allow new visions to blossom, thoughts of resurrecting the past had to be released. For the superintendent and the high school principal who were together the morning after the storm and declared their commitment to rebuild, place release had already occurred. Each of the participants had spoken of gratefully embracing their new enriched environments. In order to

embrace the present without resentment for what was lost, each participant had to experience place release, at least to a small degree. Whereas each study participant embraced an altered existence, a few study participants mentioned acquaintances who longed for the way things used to be. For some, place release happened immediately. For others, place release happened over time. For those who resented their current surroundings or longed for the way things used to be, place release might not occur at all. The findings suggest the stronger the attachment to the past, the more difficult it is to achieve place release.

Place realization is the physical constitution of a place such as landscape, buildings, or furnishings. Place was severely altered when 95% of the Welton community was destroyed. When the new school was constructed and as landscapes and amenities developed, the new place was realized. The rebuilt community of Welton does not resemble the former community. Once place release occurred and community decision makers rejected any attempt at recreating the past, the focus shifted to the creation of new visions, building new structures, and creating new environments. The new environments created a space or familiar contexts in which interactions occurred. Space was transformed into place by the nature of the individual interactions. Individuals changed by the common experience of the tornado brought a new quality to their interactions with each other. In this case, the school district administrators and BOE envisioned an all new, high-tech school facility with features conducive to improved student achievement and success. Even today, the Welton school and community think of environments and buildings as emergent, an ongoing process of building and development.

Place creation happens when people are active in a place. Once people become active in an environment, new meaning to that space is assigned and place creation occurs. The recreation

of Welton spurred new social interactions and these social interactions, in turn, lent deeper meaning to the spaces where the interactions took place. As students navigated new hallways in a new school and spontaneous interactions began taking place, they were giving new meaning to their environment and routines. The social activities that had taken place in the pit now took place in the hallways. The hometown basketball games which once took place in an old gymnasium now took place in a new gymnasium. The new school, with its many improved and additional features, was considered an improved educational space for the Welton community.

Place intensification occurs when design or policy revives and strengthens place, thereby enhancing quality and character of that place. Every study participant described participating in one or more focus groups seeking input regarding both school and community structures. Their cross membership between school focus groups and community focus groups raised their awareness about the different rationales of various rebuilding initiatives. When Welton rebuilt community structures, city leaders passed a resolution that all buildings were to be built to LEED standards. Sidewalks in Welton were made wider than they were pre-tornado to encourage higher volumes of pedestrian traffic. The concept of wider sidewalks was intended to encourage social interactions that might lead to the creation of a town hub. More citizens walking meant less use of motor vehicles and more protection for the local environment.

The new high school, with its south-facing windows letting natural light pass through, have reportedly made notable differences in the moods of staff and students. All classrooms have the benefit of natural light plus desirable views of outside landscapes and activities. The purposefully planned features of Welton's school and community are considered improvements in the quality of life for all community members. When school district consolidation was

initially rejected by Topper and Osner, school administrators were able to identify what was blocking facilitation of the arrangement. As suggested by Manzo & Perkins (2006), when school planners better understand what it takes to create new emotional bonds to a school or community, they are empowered to move forward with planning. In Welton, the end result was that Topper and Osner were willing to consider school consolidation when the place intensification was improved with new high-tech facilities with new names, new colors, and a new mascot. As student opportunities diversified and progressed, place intensification positively improved for those associated with the school. Milligan (1998) has suggested that the more meaningful the interactions in a new space, the more meaningful the new place will become.

In the case of Kingston County schools, all six processes are present and intertwined in revitalized places such as the city of Welton. The six processes present in Welton's disaster and education recovery have contributed to the development of new emotional bonds that individuals experience with objects, people, places, and routines. It is the social relationships within those environments and surroundings which people are attached to. Korpela (1996) has argued that new settings lead to new attachments and in Welton, the setting and environment have not only facilitated an increase in the volume of social interactions but were important means to creating and maintaining a high quality of life as well. The decisions made for place realization kept Welton from experiencing what could easily have been an inevitable decline.

The physical aspects of place are representative of the social interactions that take place there (Hidalgo & Hernandez, 2001). Additionally, the social interactions among people are stronger than the physical bonds to material objects. Rachel explained this concept when she described the intense meaning she now assigned to people over the meaning assigned to places

or material objects. While replacement of physical and material goods is crucial in crisis response, people cannot resist the natural human desire to move through Maslow's hierarchy of human needs (Poston, 2009). Disaster relief was able to secure physiological needs in Welton. The Welton school BOE and administration were able to facilitate a part of the second level of Maslow's hierarchy--safety and security—namely, employment leading to social stability by promising jobs for the first school year following the storm. This allowed staff members to assume full responsibility for the care of their families. The Kingston County school facilities and grounds represented a high-quality environment in which new goals were formulated for desired social interactions, student well-being, and student achievement. The new settings were preliminary to the formation of new attachments.

As I have described above, place attachment is a process made up of six phases. The purpose of identifying the complex phases and their characteristics is to allow individuals to have influence over new place attachments. Knowing the intricacies of each phase will potentially allow individuals, groups, leaders, politicians, and other decision makers to influence how people, organizations, or communities can be guided through future place attachment processes. Knowing how much influence can take place over any one phase is worth understanding. Perhaps architects and city developers influenced place release and eventual place realization and place creation by helping students and adult community members envision new environments within which to live their lives. Perhaps school leaders from three communities facilitated new place identity for students when they included student feedback on the selection of a new school name, new school mascot, and new school colors. Once individuals identified with their surroundings, they become connected to those surroundings.

### **Connections to Place Prior to the Tornado**

School usually represents an individual's first experience of being emotionally connected to a place beyond the home. It is, therefore, a significant attachment and a significant place. Attachment to place for the participants in this study was compromised, altered, and eventually reassigned to newly created spaces. Upon meeting each interview participant, I provided a working definition of place attachment: the emotional bonds people experience to objects, people, places, and routines. Nostalgia for a vanished place, such as the bonds to the old high school gymnasium that Doug described, explained the desire for the new place to facilitate and replicate previous social connections, thereby linking past to present. Rachel believed she missed out on the experience hanging out in the upper classmen's pit. Teachers missed the dynamic interactions that occurred in hallways because they believed them to facilitate social connection among staff as well as students. Teachers additionally missed having a staff lounge to facilitate a common location for sharing meals and taking breaks. Until they were replaced by impersonal FEMA trailers, the function of hallways and a staff lounge as social connectors was unrealized. Bonds to objects and place became more apparent to Welton subjects after they experienced disruptions to those bonds (Milligan, 1998).

After the destruction, Rachel placed emphasis on relationships with people rather than material objects. However, she was envious of those who were privileged to attend school in the new building. Doug was envious of his younger brother who got to attend school in the new facility as well. Doug and Rachel felt they missed out on emotional connections to the new school building and wished they had a school building in Welton to come back to. While Doug and Rachel both graduated high school and went on to college, their high school experiences

were somehow incomplete. Perhaps the emotional bonds to place exemplified by old Welton were stronger than either of them realized.

### **Disruptions to Place Attachment**

The events of the tornado caused disruptions to place attachment by halting education and learning. Education and learning had been typical interactions experienced by educators and students. Not only were previous attachments disrupted, additional disruptions occurred after the disaster recovery and education recovery processes began. Though necessary, these additional disruptions were caused by the need to stop instruction and address mental health issues. The Welton school staff was encouraged by mental health professionals to let students talk about their feelings, a notion supported by Phillips and Phillips (2008). Less critical disruptions occurred through the multiple assemblies and presentations by outsiders wanting to honor Welton citizens, specifically staff and students. Additional disruptions to instruction occurred when teachers stopped class to take walking field trips to observe grand openings or homes being rebuilt. Such disruptions were unnecessary but important as there remained a delicate balance between keeping a focus on learning and showing appreciation, gratitude, and joy for others as they reached new milestones in the recovery process.

Displacement forced students to be separated from each other for most of the summer immediately following the storm. Families moved wherever temporary housing was available. Students were upset and anxious for not being with their friends. Adults observed how students were relieved once circumstances allowed them to rejoin peers. The relief students finally experienced was obvious at athletic competitions when teammates came together for the first time in weeks, in many cases on the first day of school. The need for students to reconnect

became clear to some staff members who were also parents. They witnessed their own children's anxiety at being separated and their subsequent relief when they socialized again as neighbors in town or classmates in school. Students benefitted from restoring their connections with peers as soon after the disruptions as possible (Hawkins & Maurer, 2011).

Even though conditions in the temporary trailers were noisy and uncomfortable, at least the trailers provided a measure of security for children who took comfort in the fact their friends were nearby. Students need to experience healthy social interaction with peers Wolmer, et al (2005). Children under stress need to stay connected with family, friends, and school communities. Children are naturally social and find great solace in being able to talk about their feelings with trusted individuals at the time they are having intense emotions.

For school staff members who experienced attachment disruptions, relief came with new expectations for recreating routines. Staff experienced relief knowing there would be jobs to return to. After a summer of putting in place temporary housing locations and routines, staff participants experienced an additional reprieve once the first day of school began. The liberation was in part due to getting to see familiar co-workers but most relief came from the establishment of new daily routines. None of the study participants referred to daily routines as "returning to normal." But they did refer to new daily activities as doing "normal" things. The events they considered normal were going to school, going to the store, sitting on the porch, grilling hamburgers, going to the movies, and children playing in the neighborhood with other children. Restoring their ontological security, the comfort provided by everyday social activities, community, the home-place, and the value of community is what eventually set the adults at

ease, mitigating their anxieties (Jaycox, et al, 2006). My study confirmed the benefits for students and staff to reestablish typical daily routine as soon as possible after a major disruption.

The participants of this study realized the importance they assigned to place after experiencing loss of place and dramatic shifts in place caused by forced displacement and destruction of their familiar environment. The principal focus of this study was about school, not home or neighborhood. However, to disregard attachments to home and neighborhood would be neglectful since that is where the majority of each participant's experiences with the storm took place. The social connections and interactions in home and neighborhood lent significant meaning to school. The everyday habitual routines which occur in a place are the foundation for long term involvement and identity with a place. Involvement and identity with a place in turn sustain and are sustained by regular environmental actions which are also maintained and strengthened through place attachment (Manzo & Devine-Wright, 2014).

### **Beneficial School Efforts**

It would have been possible to rebuild the Welton school in a shorter amount of time than the three years it took to envision and build the new school. The community's commitment to rebuilding a town and school that offered something different than other communities caused the three year delay. However, all of the participants, while frustrated and weary during the rebuilding years, trusted in the long-term vision for the school. Weighed against the school they had now, participants judged the wait to have been worthwhile, even the two former students who never had the privilege of attending the new Kingston County schools. In hindsight, results such as the rebuilt community, LEED structures, modern school facilities, more cohesive staff members, and increased student enrollment collectively justified the three year delay. These

attributes are examples of positive place intensification. However, the protracted rebuilding process also came with burdens. The hardships endured by staff and students are addressed in the Implications section.

Staff members consciously made an effort to project a confident appearance in public situations, an expectation articulated by the superintendent. Each staff participant commented that the directive to convey an optimistic attitude might have been particularly helpful in their individual coping and healing processes. Even though staff members were commended for projecting an upbeat demeanor, some of their comments alluded to struggles they experienced both personally and professionally. The participants kept personal struggles private, in their own homes and among their own social connections. A few teacher colleagues possibly struggled more than others. Colleagues were aware that others were struggling emotionally when they observed them withdrawing from social situations. Staff members stepped forward to help each other stay connected such as when Nancy reached out to a confidant to provide emotional support and encouragement. Neil observed staff members inviting each other to lunch. Intentional acts of socializing benefitted colleagues, helping them remain effective educators in trying times. Having experienced an education recovery and having observed people helping people, the Kingston County educators believe they are better able today to establish emotional connections with students. A successful recovery seems more likely to occur when the connections people have to each other are strong.

Staff members praised the leadership of Neil, their superintendent. The school staff needed the vision and skill of their superintendent during the tumultuous times of recovery. The superintendent was able to give due diligence to the situation and protect the dignity of all. Neil

spoke privately with colleagues who needed his support. Staff members believed Neil's high expectations launched them toward a healthy education recovery.

Stemming from the aftermath of Hurricane Katrina in 2005, the National Commission on Children and Disasters (2007) submitted its report to the President Barack Obama on October 14, 2010. The report recommended elevating the unique needs of children in all aspects of disaster recovery. Those recommendations are now inclusive of many civic organizations in a community such as education, medical, and social services. Educators naturally take care of children first (Noddings, 2013). Teacher care-givers seek responses from those entrusted into their care to complete the encounter and motivate them to continue giving care. As noted in the literature review, peers and teachers as well as parents are considered to be key agents for intervening and facilitating optimal student development. It was most important to the participants in this study that counselors were empathetic and connected, not necessarily that they shared the same experience. In this regard, the Welton educators, administrators, and BOE did a thorough job of putting the needs of students first, especially their mental health issues that emerged as the recovery process unfolded. The Welton educators did not do that because they had necessarily read the Children and Disasters report. They did it because as educators, serving the needs of students is an intuitive response.

### **School District Oversight**

The staff and student participants sensed the BOE and administration were attentive to their needs and believed that much thought was given to the well-being of all. Neil, the superintendent, spoke of personal lessons learned that he would convey to other leaders in future education recoveries. Neil would encourage the use of consultants with practical experience to

guide other leaders through decision making processes. While Neil did not regret the decisions he made, he was convinced he could have made more efficient and effective decisions if he had had an experienced consultant to advise him. Knowing what she knows now about mental health wellness, former student Rachel speculated it would be helpful to have more formal mental health wellness staff on hand. Rachel did not see the lack of formal resources as an oversight; rather, she suggested it could be beneficial to potential future victims.

### **Implications**

Initially, during the first year after the storm, many people experienced various ongoing adversities. While some students and even teachers demonstrated signs of enduring stress, and traditional academics at times had to be put on hold to allow children the opportunity to express their feelings, students did not experience an academic decline. In fact, by the next spring, the district's state assessment scores had improved and some athletes outperformed themselves in competitions. These improvements might possibly be due to the close relationships between teachers and students in this community, a characteristic trait of being small and rural (Bushnell, 1999).

The emotional bonds staff and students experienced toward their pre- and post-disaster environments make at least a small appearance at each level of Maslow's hierarchy of needs (citation needed). After study participants sought out love and belonging by restoring social interactions, they were able to act confidently and respond appropriately to the demands of educational tasks. For reasons unexplained by my data, they experienced improved student achievement scores and high graduation rates. Even though Doug and Rachel felt cheated out of

important aspects of their high school experience, they still managed to have successful high school careers and go on to post-secondary education.

All families were displaced by the tornado but not all families returned. Further research is warranted to study the education recovery process for families who were displaced, moved away, and did not return. It would be worthy to note whether students who did not return adjusted well to their new settings or if they experienced some form of psychosocial maladjustment because they were not with familiar human support networks. As staff participants noted, two staff members left the Welton community for reasons not necessarily related to being displaced.

In supporting others, participants noted the importance of being flexible, listening, and celebrating the progress of others. Being flexible was equally important for teachers and students because a struggling individual needed to talk through their anguish again and again. Recovery required understanding colleagues to make intentional efforts to stay connected with one another. If one person needed to talk about his or her feelings, that person needed an empathetic listener. If a student suddenly became frightened of a storm, that student needed an adult to listen and provide reassurance. The students in Welton did not demonstrate the typical long term effects of psychological trauma noted in the literature review such as loss of interest in social activities, education, and work. The most common symptom educators observed in students was fear of subsequent trauma-inducing storms. If a teacher or student had something to celebrate, that person needed someone to share the news with. The progress of others came in the forms of a newly acquired vehicles, rebuilt homes, and retail store grand openings. Celebrating each other's progress appears to be an integral part of the recovery process.

New daily routines should include intentional efforts on the behalf of adults to stay connected to one other as well as providing comparable opportunities for students. In Welton, staff and students were subject to subsequent adversities not directly related to the storm but by the dynamics of the reconstruction years. Every participant spoke of common hardships. Common hardships were related to lack of complete facilities which, for example, caused staff and students to have to haul their personal belongings to and from each location they visited throughout the day. As a result, they were quick to get to their next location as opposed to stopping at a locker bay to socialize. There were no hallways to provide logical physical connections to each other, no pit for student socializing, and no staff lounge for adult socializing. Intentional efforts to stay connected must be a part of the plan. Examples of such environments include designated areas for lunch breaks and purposefully arranged benches on which students or staff members can rest or socialize. Even temporary environments can and should contain such amenities. Facilitating connectedness will ease anxieties.

Understanding social needs such as teacher-to-teacher and student-to-student connections has implications for future school designers. Facilities can be conducive to accommodating such social needs. While hallways in our homes are considered a waste of space and have led to open concept layouts, hallways in schools are meaningful social spaces, as this study points out. Hallways, as a result, could be redesigned and repurposed to include space for social interactions as well as collaborative teaching and learning. Implications for future designs to include more elaborate and complex hallways should be considered. The look and function of these features could facilitate aesthetics, student supervision, as well as much needed space for meeting students' instructional needs. As Manzo and Perkins (2006) alluded, emotional, cognitive, and

behavioral implications can influence an environment and which aspects of that environment get prioritized. Create the environment to fit the culture and priorities of the community which, in this case, was the school staff and students.

Teachers are key agents for assessing student needs and facilitating interventions. Schools are major access points for masses of children in one convenient location. Teachers and schools become logical service providers in times of crisis. In light of that dynamic, teacher preparation programs should include some basic trauma studies. Trauma is every day and can be large-scale as in a large natural disaster, or it can be an isolated case such as violence in the home. In either case, teachers have access to many students at once and for several hours of the day. It is likely that if a student experiences trauma of some kind, the teacher is going to be among the first to observe the symptoms. A teacher is likely to be the trusted adult a young child turns to for help. Teacher preparation programs already include others types of instructional differentiation. Mental health wellness issues are more prevalent in schools on a regular basis and services to address those needs have a visible presence in schools. As more natural disaster related destruction is likely to occur throughout the country, general teacher preparation programs should begin to address this growing need. Positive interactions with trusted adults in places such as school will aid students' education recovery by also recognizing their attachment to place and attending to their emotional bonds to objects, people, places, and routine.

Students in this study performed better and were more at ease once they were reconnected with their peers. The longer the delay in getting students reconnected with each other, the longer will be the delay for students to settle in and return to learning and typical activities. Being relocated closer to home meant students were more readily connected with

familiar friends and not engaged in making new friends. There was comfort in being with people they already knew (Blaze & Shwalb, 2009). Children helping children is a resource to be considered in education recovery.

### **Culture Shift**

Many new initiatives resulted from Welton's experience. For the schools, diversified opportunities met the interest needs of students. Students and community observed unusual careers in action. As a result, Kingston County schools capitalized on the new and varied interests of students by creating interest clubs. Within the new Kingston County schools facility are such courses and opportunities as afforded by the media club, leadership club, peer mentoring, and projects which extend into the community. New career paths are being promoted related to environmental sustainability, weather, media, and journalism. Limited resources and lack of relevance can be a barrier for small rural school schools to provide such diverse opportunities. Perhaps more formalized career paths could be explored, especially for secondary students preparing for post-secondary education and experience.

The development of classes and clubs were not the only positive shifts to have occurred for Kingston County students. New behaviors were also observed. Not only were students observed demonstrating more shared responsibility and courtesies. Staff members also stepped out of their typical routine such as when a reputedly frugal staff member made a generous monetary donation to another town that experienced destruction of its school. Yet others participated in mission trips to those affected areas.

School groups often work in conjunction with community organizations to facilitate both school and community events. While this characteristic can be unique to small rural schools and

communities, the Welton community and Kingston County schools continue to operate with strong cohesive connections. Students share in the responsibility of setting up and taking down equipment at these events. The community shares resources between organizations such as the church organization that allocated the use of its folding chairs for rotating events. Sharing of resources as well as responsibility has resulted in a culture shift in Welton.

In conclusion, the stories presented in this study are mutually constructed realities between the participants and me. Their stories reflect that which they believed was important in their personal education recoveries as well as what might be beneficial for future decision makers and planners to know. Psychological and social connections demand consideration if education recovery is going to be complete (Franks, 2011). As participants stated, it is their hope, as well as mine, that this research will be valuable to others in disaster and education recovery. As collaborators in this study, we have expanded the research base to include more voices of those affected by disaster and the struggles associated with education recovery.

This study was conducted to investigate and address place attachment needs for staff and students that foster a more complete education recovery. Because the psychosocial needs of students and teachers in education recovery have been unrecognized and underserved in previous disasters, education recovery is at risk of being incomplete. What I found was that if the six place attachment processes are thoroughly recognized and nurtured, individuals stand a better chance of making complete and healthy education recoveries.

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## APPENDICES

APPENDIX A

CONSENT

**Superintendent, Teachers, Former Students**

**Personal Interview Consent Form**



*Department of Counseling, Educational Leadership, Educational and School Psychology  
Box 142, Wichita, KS 67260-0142*

**Purpose:** You are invited to participate in a study designed to generate deeper understanding of the processes related to education recovery following education loss as a result of a tornado.

**Participant Selection:** You were selected from those who lost their school setting, their belongings and learning materials, and their social and academic routines, as well as any support systems already in place. Approximately nine individuals will participate in the study. You were deliberately selected because of your experiences with the event of the tornado and the key perspectives you have to offer about the education recovery process. Your participation will consist of an individual meeting with me.

**Explanation of Procedures:** If you decide to participate, you will be asked to share your perspective of the processes related to education recovery following education loss as a result of a tornado. The session will consist of open-ended questions designed to generate deeper understanding of those processes. One example of an interview question is: What role does the experience of the tornado play in your current professional life and decision making? The sessions will initially last approximately 60 minutes. Possible future sessions may be warranted if the participant has more content to elaborate on or if something is unclear to me and I need further clarification. Review of documents and artifacts such as community plans and website may spark further questions regarding the processes of education recovery. The session will take place at Kiowa County schools, or a time and location convenient for you. With your permission, I would like to audio record our session so I can create an accurate transcript, which will facilitate data analysis. Your story will be recorded, analyzed, and retold anonymously.

**Discomfort/Risks:** There are no risks, discomforts, or inconveniences expected from your participation in this study. It is possible you may find the topic of the study sensitive in nature given the possible traumatic experience related to the storm. You may skip a question(s) or stop at any time if you feel uncomfortable.

**Compensation or Treatment:** Wichita State University does not provide medical treatment or other forms of reimbursement to persons injured as a result of or in connection with participation in research activities conducted by Wichita State University or its faculty, staff, or students. If you believe that you have been injured as a result of participating in the research covered by this consent form, you can contact the Office of Research and Technology Transfer, Wichita State University, Wichita, KS 67260-0007, telephone (316) 978-3285.

**Benefits:** I hope the information gained from this study contributes to more intelligent thinking about current and future problems with education recovery. Results may be published in journals and presented at conferences in order to share what I learn from the study.

**Confidentiality:** Any identifiable information obtained in this study will remain confidential and will be disclosed only with your permission. Raw data will be maintained in a secure location for three years, and no identifying information will be used in the final dissertation or subsequent publications. Digital audio recordings will be secured in a password protected file on my computer and deleted at the conclusion of the study. No one other than me and my advisor at Wichita State University will have access to the raw data.

**Refusal/Withdrawal:** Participation in this study is entirely voluntary. Your decision whether or not to participate will not affect your future relations with Wichita State University or myself. If you agree to participate in this study, you are free to withdraw from the study at any time without penalty. You will be provided with a copy of this consent form for your records.

**Contact:** If you have any questions about this study, please contact Andi Williams, 620-243-2370 (cell phone) or my advisor Dr. Eric Freeman, (316) 978-5696 (office phone). If you have questions pertaining to your rights as a subject, or about research-related injury, you can contact the Office of Research and Technology Transfer at Wichita State University, Wichita, KS 67260-0007 at (316) 978-3285.

You are under no obligation to participate in this study. Your signature indicates you have read the information provided above and have voluntarily decided to participate.

\_\_\_\_\_  
Signature of Subject

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title or Area of Representation

\_\_\_\_\_  
Signature of Witness

\_\_\_\_\_  
Date

## **APPENDIX B**

### **INTERVIEW PROTOCOL FOR ADMINISTRATORS AND TEACHERS**

1. Describe how the tornado on May 4, 2007 affected you. (Display Greensburg photographs).
2. What first responses were provided to Greensburg schools? (Supplies, services, human resources). Were they adequate? Meaningful?
3. What effect did those decisions have on students, teachers, administrators?
4. What measures were taken by the school to mitigate what we know to be potential displays of PTSD and interrupted learning?
5. What efforts were made to keep the focus on learning?
6. What were people's perceptions of how these actions met their needs? Why or Why not?
7. What physical and material items helped you or others the most following the tornado?
8. What post-disaster needs should be included and prioritized to help re-engage students in the learning process and sustain academic success? Re-engage teachers?
9. What opportunities were presented in the face of adversity? (change school colors, mascot, community responses, outside communities stepping up, initiatives acted upon, benefits)
10. How were alumnae affected, those who did not live through it but have come back to the changes? (attachment to place, things, ideas).
11. What measures were taken to assess students' longer-term needs?

12. How did children's play and interactions change?
13. What did you think when you realized what happened?
14. How has this affected you and others?
15. What do you think needs to happen to make things right?
16. What role does the experience play in your current professional life and decision making?
17. What do you remember appreciating the most about post-disaster recovery efforts?
18. What responses, information, or resource did school personnel view as necessary for education recovery following a natural disaster?
19. What social, emotional, and academic support is still needed?
20. What do you remember most about school prior to the tornado?

## APPENDIX C

### INTERVIEW PROTOCOL FOR FORMER STUDENTS

1. Describe how the tornado on May 4, 2007 affected you. (Display Greensburg photographs).
2. What did you think when you realized what happened?
3. How has this affected you and others?
4. How were you able to re-engage in learning, socializing processes, and routines?
5. What school efforts were made to keep the focus on learning?
6. What physical and material items helped you re-engage the most?
7. What post-disaster needs should be included and prioritized to help re-engage students in the learning process and sustain academic success?
8. What measures were taken by the school to mitigate what we know to be potential displays of PTSD and interrupted learning?
9. What measures were taken to address students' longer-term needs?
10. What opportunities were presented in the face of adversity? (change school colors, mascot, community responses, outside communities stepping up, initiatives acted upon, benefits)
11. How were alumnae affected, those who did not live through it but have come back to the changes? (attachment to place, things, ideas).
12. What role does the experience play in your current professional life and decision making?
13. Did any of the events of the tornado and/or recovery change any of your aspirations?

14. What do you remember appreciating the most about post-disaster recovery efforts?
15. How meaningful are first responses to you as the student? What would make it more meaningful, to promote academic engagement?
16. What support is still needed?
17. What do you remember most about school prior to the tornado?