

**Leadership Education and Service:  
Exploring Transformational Learning Following a Tornado**

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**Abstract**

Each year, millions of people around the world are affected by natural disasters. Following these disasters, many students from colleges and universities arrive to support the affected areas. These seamless leadership learning opportunities engage students by allowing them to implement the concepts they learned in a classroom. Humanitarian relief requires leadership and logistics to mobilize essential resources to aid vulnerable groups affected by these disasters. This qualitative study evaluates two separate relief projects that were hands-on, week-long service trips involving college students responding to two natural disasters in the United States of America. Using data collected from prompt-based journals, the researchers in this study sought to develop a deeper understanding of participant service experiences in relation to leadership education. Leadership education provides valuable reflection points for students and this manuscript outlines key themes from two unique service experiences. This project showcases these reflections and provides a potential qualitative assessment process for similar endeavors useful for both educators and researchers alike.

**Exploring Social Change in Leadership and Humanitarian Relief Following a Tornado:  
A Phenomenological Approach**

In the last decade, the United States Federal Government declared more than 600 national emergencies due to major events such as tornados, hurricanes, fires, heat waves, and floods that required substantial humanitarian logistics relief. In 2011 alone, the United States experienced a

record number of natural disasters (Schultz & Elliott, 2013). Disasters, like hurricanes Katrina, Sandy, and Rita demonstrated the importance of humanitarian logistics and the servant leadership qualities that are essential to providing relief (Lima, 2012; Waugh & Streib, 2006). A major goal of humanitarian logistics is to reintroduce supply and alleviate human suffering (Helferich & Menzies, 2012). Leaders and volunteers from local communities, however, are often not enough to manage ongoing disaster relief. Most humanitarian efforts are challenged by the lack of key support, particularly practiced logisticians, servant leaders, and other skilled relief workers (Thomas & Kopczak, 2005; Van Wassenhove, 2005; Overstreet et al., 2011).

In the wake of several major disasters that occurred in recent years, volunteers from around the United States traveled to Alabama, Virginia, Oklahoma, Missouri, New York, New Jersey, and other devastated locations to offer much needed assistance. A surprising number of volunteers who responded to the various national emergencies came from the student, faculty, and staff ranks of American universities and colleges. Their objectives were to both study and provide much needed service (Campbell, 2011; Heldman & Israel-Trummel, 2012). While evidence shows communities benefit through the improved services and support provided by additional volunteers and servant leaders (Gazley & Littlepage, 2009), to date there is little research that explores the student perspective while engaged in this hands-on, servant leadership educational opportunity.

Higher education plays a vital role in developing responsible citizens who are ready to offer positive social change leadership to their respective communities and to society (Buschlen & Dvorak, 2011; Dugan 2006) and serve others following a natural disaster (Buschlen & Goffnett, 2014). In the last 10 to 15 years, a few colleges and universities have begun developing programs related to the historical, theoretical, moral, and service-learning tenets of leadership (Buschlen & Dvorak, 2011), yet these programs are in the early stages of development around the country (Owen, 2012). In these programs, leadership educators provide students with experiences both inside and outside of the classroom that expand their knowledge of leadership through exposure to community service, team dynamics, empathy, and stewardship - all with implied personal reflection (Arnold & Welch, 2007; Astin, 1993; Berger & Milem, 2002; Komives, Lucas, McMahon, 1998; Mumford & Manley, 2003).

As colleges and universities develop and expand alternative break-like programs and other academic service-learning endeavors to create seamless leadership learning (Buschlen & Guthrie, 2014), a need exists to better understand individual and collective outcomes from those experiences. That premise led to this project's research question: What are student leaders gaining while serving others through humanitarian logistic activities following a natural disaster, and how do we truly know they were transformed by the experience? While previous research has studied the outcomes of service-learning through quantitative or mixed methods approaches, this project looked strictly at personal narratives based on the lens of the Social Change Model of Leadership (SCML) (HERI, 1996, Komives & Wagner, 2009). As leadership educators implement service-based programs, a need exists to better understand how participants apply curricular and co-curricular knowledge to practice. This study, in part, addresses that issue. Through participants' prior exposure to the SCML in trainings, and use of that model in journal prompts, the researchers were able to assess the participants' application of theory to practice.

The purpose behind this endeavor was to capture the dynamic experiences of two unique teams of college students that ventured more than 800 miles to serve others for a week following separate natural disaster tornados. The focus was to move beyond the quantitative values such as number of students, number of hours served, number of sites served and to delve more deeply into understanding the students' individual and collective leadership development and transformation by examining their reflections on service-learning in social conditions altered by a fast moving change. For this study, both service sites were impacted by tornados, and participants worked in exhausting heat to perform critical logistics services in vulnerable socio-economic areas under exceptionally disorienting (transformational) circumstances.

The following presents a brief literature review for context on leadership education, service-learning, and humanitarian logistics as well as describes the theoretical constructs and the two unique data collections that inform the research. Outlined in this project are the shared narratives of these teams. A subsequent section examines the role that colleges and universities play in developing curriculum and experiential learning opportunities for both academic courses and co-curricular endeavors.

## **Literature Review**

### **Leadership Education, Service-Learning, and Humanitarian Logistics**

Dugan (2006) argued that one of the most vital functions of colleges or universities is to develop future leaders. It is vital that schools do more than simply list "leadership development" in their marketing and begin to offer useful academic and hands-on learning to create an efficient training process (Buschlen & Dvorak, 2011). This process must be rooted in the idea that leadership is broad, complex, and occurs in a real-world setting with real people (Mumford & Manley, 2003). Students expand their knowledge of leadership through a mix of learning experiences that occur inside and outside the classroom, and become more effective members of society through leadership practice (Astin, 1993, Buschlen & Johnson, 2014). Thus, any student who desires to become an effective leader must be open to learning essential skills and processes such as service to others, integrity, teamwork, personal reflection and be open to gaining a better understanding of their role in the larger community (Buschlen & Guthrie, 2014; Komives et al., 1998).

Jacob (2006) argued that developing future leaders for business is quite different from developing socially-minded, civically-engaged, ethical leaders that serve others. The need for the latter pushes collegiate students beyond an academic experience by developing a portfolio full of both curricular and co-curricular leadership trainings focused on societal awareness, civic engagement, multiculturalism, ethics, and service-based philanthropy (Dugan, 2006). Leadership educators must not simply develop good managers, educators must develop effective, collaborative, transformational, and ethically-minded leaders (Komives et al., 2005); and universities should push for more service-based endeavors from their students to provide exposure to leadership in practice (Berger & Milem, 2002). A function of higher education programs is to create responsible citizens who are ready to contribute to leadership (Arnold & Welch, 2007; Buschlen & Dvorak, 2011).

Designing academic leadership curriculum with service-learning (SL) experiences that are aligned with strategic learning outcomes can foster a positive learning experience (Berger &

Milem, 2002; Knowles, 1980; Posner & Rudnitsky, 2001). Bringle and Hatcher (2009) describe SL as an “[edifying] experience in which students (a) participate in an organized service activity that meets identified community needs, and (b) reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of personal values and civic responsibility” (p. 38).

Godfrey et al. (2005, pp. 315-318) claim that the “3 Rs”, reality, reflection, and reciprocity, are essential elements in the design of a SL experience, and what differentiates SL from traditional learning methods (e.g., classroom lectures, internships) is engaging in “reciprocity,” where the SL experience involves students learning from a situation while meeting other process or stakeholder needs. Mezirow (2000, p. 22) argued that a “disorienting dilemma,” like a major flood or hurricane, will provoke learners to engage in community service and their personal reflections can ultimately transform into permanent knowledge and skill. Godfrey et al. (2005, p. 315) called this dilemma the “reality” that learners process in their encounters and reflections. Reflections on the service experience expand knowledge to achieve deeper learning (Ash & Clayton, 2004; Buschlen & Dvorak, 2011; Eyler, 2002; Yorio & Ye, 2012), which various experts would describe as transformational (Kolb, 1984; Mezirow, 1991). In a hands-on learning experience, students actively engage in the service event by meeting the needs of the community and, following the event, offer personal reflections on their experiences to gain a greater understanding of course objectives and civic responsibility (Bringle & Hatcher, 2009; Jacoby, 1996). SL affords students the opportunity to engage in transformational experiences that immerse them in real-world situations, like humanitarian logistics relief, to learn through civic involvement (Checkoway, 2001, Mezirow, 2000). The proper assessment of similar SL programs and courses will enhance future experiences.

Leadership based service-learning courses link leadership skills from theory to practice. Humanitarian logistics parallel traditional business logistics. Both include planning, implementing, and controlling the flow and storage of goods, services and information between the point of origin and the point of consumption to meet customer needs (cscmp.org). However, humanitarian logistics is complicated by the immense variation in needs and by the countless entities that support or are affected by disaster (Helferich & Menzies, 2012; Jahre & Heigh, 2008; Oloruntoba, 2005; Oloruntoba & Gray, 2006). There are many organizations, such as non-governmental organizations, community agencies, and different service providers that support disaster relief and are open to collaboration (Kovacs & Spens 2011; Kovacs & Tatham 2009; Perry 2007; Waugh & Streib, 2006). Previous logistics research reveals some of the critical activities needed to provide relief services that reintroduce supplies and security (Balcik & Beamon 2008). Balcik et al. (2010), for example, investigated the coordination of water, shelter, and sanitation during disaster relief. The success of humanitarian relief, however, is often determined by leadership exercising interpersonal skills (e.g., listening, awareness, problem solving, persuasion, participation), rather than strictly applying technical skills (e.g., delivery, installation, maintenance, programming) (Waugh & Streib, 2006). SL opportunities provide vital leadership and logistics practice while students provide humanitarian relief. This experience cannot be gained in a classroom setting. Therefore, higher education institutions are uniquely positioned to provide this experience for students through both SL courses and through short-term immersion trips found in a co-curricular setting (Buschlen & Goffnett, 2013).

## Theoretical Background

This project utilized the tenets of the Social Change Model of Leadership (SCML) as a framework for developing the journal prompts and as a way to outline and organize the *post-hoc* dataset. The SCML was developed to act as curriculum and/or co-curriculum to foster the development of personal values, group values, and citizenship (HERI, 1996). Service-learning and leadership educators understand that leadership can also emerge in many non-traditional settings and that co-curricular student development experiences may transcend some of the academic components of a student's academic degree (Buschlen & Dvorak, 2011). Leadership development has taken place outside of the classroom through student organization work, formal leadership roles, service projects, weekend retreats, and lecture events. The SCML, shown in Figure 1, provides a framework that is consistent with contemporary leadership paradigms (Dugan & Komives, 2007) and, thus, can be used as a thematic backdrop for curricular and co-curricular leadership education programs (Astin, 1993; Buschlen & Dvorak, 2011; HERI, 1996).

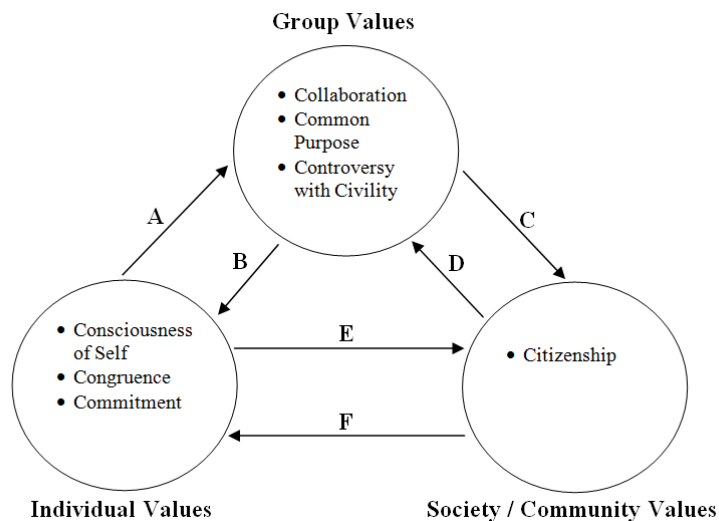


Figure 1. Social Change Model of Leadership

Adapted from the Higher Education Research Institute (HERI, 1996)

The SCML provided the starting framework for participant journal questions. To better understand the impact and outcomes of this project, the data were examined using Mezirow's (2000) Phases of Meaning Making in Transformational Learning as a way to conceptualize the disaster relief experience. Mezirow's Theory of Transformational Learning (Figure 2) involves many of the same concepts imbedded in the SCML. It requires critical reflection on assumptions regarding self (SCML-individual), cultural systems (SCML-community), places of work (SCML-group), ethics (SCML-individual & group), and emotional constructs (SCML-individual) (Astin 1993; Mezirow, 1998). Mezirow (2000) described the need for a disorientation, in this case an intense service-learning project or HITS program (High Intensity, Transformational Service), which would force the participant into self-examination and reflection of held assumptions by actively completing structured, intentional personal reflection

journals. The reflective processes and its successive stages assist the learners in adjusting and adapting their constructions of knowledge. Structured reflection is a key component found in many prominent academic leadership programs (Buschlen & Guthrie, 2014; Jenkins, 2013), but structured reflection as a form of data collection for programmatic assessment has not been as widely used in the co-curricular world.

### Mezirow's Phases of Meaning

#### *Phases of Meaning in Transformational Learning:*

1. A disorienting dilemma
2. Self-examination with feelings of fear, anger, guilt, or shame
3. A critical assessment of assumptions
4. Recognition that one's discontent is shared with the process of transformation
5. Exploration of options for new roles, relationships, and actions
6. Planning a course of action
7. Acquiring knowledge and skills for implementing one's plans
8. Provisional trying of new roles
9. Building competence and self-confidence in new roles and relationships
10. A reintegration into one's life on the basis of conditions dictated by one's new perspective

Adapted from Mezirow (2000), p. 22.

## **Methodology**

Due to the nature of both service-learning data collections taking place in a disaster relief situation and the sample sizes, qualitative methods were implemented. To study and understand the shared experience of the participants, an aspect of phenomenology was used called transcendental phenomenology (Creswell, 2013). Phenomenology is the process of reducing many shared experiences down to a universal theme (Creswell, 2013). Moustakas (1994) explained transcendental phenomenology as outlining a phenomenon, removing one's personal connection to it, and collecting multiple versions of narratives from those that experienced the phenomenon. In this case, the phenomenon studied was the shared experiences of each unique group of college students serving separate communities on different occasions following major disasters (tornados). This form of qualitative inquiry should allow for a deeper understanding of the service provided by each team and the personal and shared outcomes. Polkinghorne (1989) stated that this method works well with groups of 5 to 25 individuals that have all shared the same experience. Once the data was examined through a phenomenological lens and coded, the two data sets were examined for key themes.

Participants in this study kept prompt-based journals. These journals were written through the tenets of the SCML and were completed in three phases: before, during, and 30 days after the experience. The settings for the journaling took place in three contexts: 1) during the ride to the site (eight hours or longer), 2) the town where the service projects took place (the groups both stayed at a Boy Scouts of America affiliated campgrounds), and 3) at various locations after the conclusion of the service project (approximately 30 days after the trip). The SCML served as an ideal template for this qualitative project by soliciting responses from the group that focused on vital leadership developmental stages.

Context: On April 10, 2011 the community of Pulaski, Virginia was struck by two tornados: an EF-1 and an EF-2, respectively. Families lost their homes, businesses were damaged, and the community was permanently changed. The community suffered an estimated \$1.7 million dollars in damages (Myatt, 2011). Later that same month, on April 27th, the community of Tuscaloosa was devastated by an EF-4 storm that ravaged a path one mile wide and 5.9 miles long – damage costs rose past the \$4 billion dollar mark (MyFoxAl, 2011).

In May 2011, six students and a faculty chaperone traveled to Pulaski, Virginia to provide support. In December of the same year, thirteen different students with no faculty chaperone traveled to Tuscaloosa, Alabama. Both groups coordinated logistical activities and performed manual labor to restore the damage-ridden areas. The groups were not affiliated with an academic course, but rather with a registered student group, with members that voluntarily agreed to participate in this project, specifically in a data collection of student SL experiences.

*Virginia.* The majority of this team's time was spent laboring, 30 days after the storm, in a single home. The team was the first group to enter the home one month after the tornado. They were accompanied by the family. The homeowners assisted the team when possible. The group spent five of their six days working in that setting. The homeowners had no insurance and no means to pay for the repairs. The home was built on an extreme elevated grade with the basement serving as the first floor and the second floor was the living area. Photos of the home would show the roof was missing sections, the floor was saturated from exposure, and the overall structure was completely infested with bugs, snakes, and mildew. The group was there to gut the home, pick up and remove its contents as safely as possible, and coordinate the removal of rubbish from the site. The late-May days in Virginia were extremely hot and damp. Temperatures hovered in the upper 90 degrees (Fahrenheit) with very high humidity levels. This provided an added element of reflection for the team. At times, the heat was more challenging than the labor.

*Alabama.* Eight months after a series of EF-4 and EF-5 tornados (62 in total) ripped through Alabama, killing 247 people (Oliver, 2011), the Alabama team managed many tasks on multiple Tuscaloosa properties that each took 1-2 days to complete. The participants completed site clean-up on three adjacent sites for two days, picking up debris, broken glass, and many personal items. The homes that were once there were completely destroyed by the tornado, and the site clean-up was the first phase of the rebuilding process. On the other days, the group spent time providing logistical support at a warehouse and distribution center offering food and household goods to people in need, touring local neighborhoods, and visiting the University of Alabama campus. The team was able to assist in the final restoration of an elderly woman's home, and she was permitted to move back in to her re-built home prior to the December holidays. The Alabama participants worked with various humanitarian groups during their

service week, including those providing goods distribution and a ministerial group that had rebuilt the elderly woman's home. As their service project occurred in December of 2011, temperatures were mild in Alabama.

*Participants.* In the Virginia data collection, the group was made up of five undergraduates, two recent alumni, a faculty chaperone, and a representative from the National Relief Network (the NRN representative did not journal). The NRN is a Michigan-based nonprofit that provides disaster relief around the nation. The NRN coordinated all trip functions, including travel, lodging, food, and tools, for a fee paid by the participants. The students willingly participated in this research project by offering consent. Two of the project participants chose to not keep a journal, resulting in a sample in Virginia of ( $n=6$ ). Of the research participants, five were female, one was male. All participants were Caucasian. The female student participants ranged in age from 19-23. The faculty advisor was 40 years of age and also led this first phase of data collection. The participating members had all taken an academic course in leadership taught by the faculty member who also served as the trip's chaperone. The leadership course was built upon the tenets of the SCML, but this trip was not part of the academic course. Few students knew each other at the start of the trip. The team shared many discussions and reflections throughout the week, but none of the reflections were prompted or led by the faculty member conducting the research.

In the Alabama data collection, the group consisted of 13 participants, three participants were male, 10 were female, and they ranged in age from 18-23. Four chose to not participate in the project, including all of the males, resulting in a sample of ( $n=9$ ). Of the nine females, one was an African-American and eight were Caucasian. All members had completed at least one leadership course at some point in their academic career. There was no faculty chaperone present during this trip, and participants met with a NRN representative while on-site in Alabama. Similar to the previous group, this trip was not part of any academic course, and was planned through a registered student group affiliated with National Relief Network.

In both circumstances, the data were collected by means of prompt-based journals maintained by the participants. The journal prompts were written in advance and provided to the students in three sealed envelopes. The participants were also given a blank notebook and access to pens. The journal prompt envelopes were taped inside the cover of each notebook. Each journal prompt envelope had specific directions as to when the prompt should be opened. Instructions were based on pre-determined times for each journal entry: before, during, and 30 days after the experience. Verbal instructions were given to each group from the same researcher before each trip. After the journals were completed and returned, they were promptly transcribed and any information identifying individual students was removed. Due to the reflective and emotional nature of the data, participants were allowed to ask for the return of their journal after transcription. The prompts are connected to sections of the SCML (HERI, 1996). The parenthetical information was not shared with participants. The data collection tool was revised from the first collection in May to the second data collection in December to streamline the journal entries. The journal prompts remained the same.

#### *Journal Prompts: Before Arrival*

- 1) Have you ever participated in a week-long clean-up effort like this in the past or anything that was similar? If Yes, please explain what motivated you to do that project and also



explain any “life lessons” that you took away from that clean-up. If No, what sorts of things have you done in the past that may have been similar - painting a house for a senior, working to build a house, etc. what did you “take away” from those events? (Individual Values)

- 2) What are your top “expectations” for this trip – either positive or negative? (Individual & Group Values)
- 3) In the 1970’s, Robert Greenleaf explored a new type of leadership known as Servant Leadership. In short, he felt that leaders should exist only to “take care of the followers.” This concept is clearly linked to ethics and morals. With that said, why do you dedicate yourself to travel across the country to assist strangers in this clean-up project? There are countless activities that your peers are doing now - working, taking classes, enjoying the summer weather and you are on a bus heading to a disaster clean-up . . . why? Explain. (Individual, Group, & Community Values)

*Journal Prompts: While On-Site*

- 1) What have you observed or experienced so far that has taken you completely by surprise? What were you not been prepared for? How could you have been better prepared? (Individual Values)
- 2) The clean-up has been hard work and long hours so far – what helps you get up each morning at 6:00am to do it? (Individual Values)
- 3) It may be hard to see progress in such a short, six day clean-up, so how do you know you are making a difference? Explain. (Community Values)
- 4) You are working with a group of students and with other people from around the country. Explain the benefits of working as part of this team. (Group Values)
- 5) How did you settle disputes, if any? Did you feel a sense of team collaboration and team shared purpose while participating in this endeavor? If yes or no, explain. (Group Values)
- 6) Servant Leadership authors believe that a leader’s role is to always “take care of the have nots.” The term “taking care of” is somewhat broad. What sorts of things have you done on this clean-up to “take care of” the ones we are serving - labor or interacting with local people? (Community Values)
- 7) What do you think will have the most lasting effect - your labor or building relationships? Why do you feel that way? Expand and include examples. (Community Values)

*Journal Prompts: 30 Days After*

- 1) Thirty days ago, you participated in a site clean-up following a natural disaster. What are the lessons that stand out in your mind? Explain how this clean up may impact your future as a leader by giving examples. (Individual, Group, & Community Values)
- 2) Explain your level of connectedness to the community that you served in last month? (Community Values)
- 3) Since you were part of a team, explain how being responsible for the welfare of others made you feel. (Group Values)
- 4) Name three events that stand out in your mind and then explain why they are the top three events from this trip. (Individual, Group, & Community Values)
- 5) Before you participated in the clean-up, you were asked to list “expectations” for the trip. Do you feel as if those expectations were met? Explain, in detail, why they were met or why they were not met. (Individual)

- 6) Describe interactions with others when you have shared your story regarding this clean-up trip. (Individual, Group, & Community Values)
- 7) What will you do to ensure that the next trip grows with more student involvement? Explain your strategy for introducing more peers to projects of this kind. Be specific with your plan. (Group & Community Values)

Both sets of student journals were transcribed from the two collections, and any indications of the participants' names were removed. The data were entered into *NVivo 9* software (QSR, n.d.). *NVivo 9* is a qualitative software package that allows a researcher to place data into several "piles" or nodes. The nodes are set up by the research team as themes begin to emerge and are then labeled. Photos from each site, video footage from local television crews, and relevant documents from the community were also coded into nodes. Video footage was recorded 10 months later (during small group sessions in a studio) as the participants were shown photos of how the homes and areas looked after being renovated. That footage was also coded. The nodes corresponded with pre-determined SCML tenets and also corresponded with the timing of each journal entry and were labeled accordingly. The researchers, first separately, then together, examined the data for themes connected to transformational learning. This examination took place with the raw transcribed data and also through the *NVivo 9* nodes.

In order to assess inter-rater reliability (Creswell, 2013), which entailed the extent of agreement on nodes, the research team met to discuss theme relevance and coding structures through open-ended negotiation and compromise. There were no major disagreements with regards to broad concepts as the SCML served as a constant model. There was discussion on whether certain data fit with other data. While thematically similar, researchers differed semantically in differences in terminology and node organization. Terminology and node language was then agreed upon by raters to increase reliability. A small number of discrepancies, in data organization (nodes), were eliminated to produce the final dataset.

### Findings

These projects were designed with a similar premise: to capture the experiences of students that entered a community for a week and helped to rebuild after devastating natural disaster. Both projects engaged students in emotionally charged contexts, and both involved varying degrees of extreme labor or HITS – High Intensity, Transformational Service. Based on an examination of the journals, it appeared that neither team was prepared mentally or emotionally for what they experienced. Whether viewed as part of Mezirow's (2000) disorienting dilemma or as the starting point for social change, the projects shocked participants and forced action. Participants' initial observations captured the absolute destruction suffered by the community. In both cases, time had passed since the tornados --at least one month for Virginia participants, and nearly eight months for those involved in Alabama. Both groups of participants noted their shock at how little had been done to renovate the areas post-tornado, particularly in areas of poverty and homes of lower socio-economic status. To create a logical foundation for the journal prompts, the SCML was used to frame journal questions. Participant responses provided grounded, realistic data based on the individual, group, and societal change imbedded in the SCML. The data sets were examined using Mezirow's (2000) Phases of Meaning in Transformational Learning model. Leadership learning assessment was most

important for this study while outlining the individual and shared experiences in a particular context. Tables 1 and 2 outline key connections to Mezirow's learning model.

Table 1: Key quotes of a *disorienting dilemma* examples

Virginia	Alabama
“A few houses in the area were split in half with belongings still hanging out of the dressers.”	“It really hit me when we would see dozens of people on the street with cardboard signs offering their labor for money or food.”
“Roofs were torn off, and debris was everywhere”	“There are honestly people who have yet to pick up their lives after those storms. There are still areas that look like a war zone, and it seems as if the nation stopped caring.”
“The living room was covered in rotting carpet, holes in the ceiling.”	“I was surprised by how much the storm had destroyed and how much was still in rubble (eight months later).”
“The soggy floor vibrated beneath your feet if someone was walking within 20 feet of you, very much like a bog.”	

In both trips, participants fundamentally understood that at a human level, they were helping pick people up from likely the lowest point in their lives and helping families rebuild both their homes and lives from a point of utter destruction. By performing humanitarian logistics activities and services, they assisted vulnerable people and helped to alleviate suffering.

When reflecting, one student commented from the Virginia team, “I do not know if the family was the kind of family that would have done that for me or not, but I bet that with us there, they will do that in the future.” As it related specifically to the family in whose home they were working: “With the amount of ‘blessing’ the mother gave to us each day, I feel blessed.” Still another observed, “I will never forget how thankful these people were for our help.” In Alabama, the tasks were different, but some of the same emotions were expressed. “We mostly picked up broken bricks, glass, bathroom tiles, porcelain, and things like that. On occasions we would find toys, books, and appliances. It was kind of cool when we would find things deep in the dirt but at the same time, very sad. We have to remember that all of these things were people's belongings that got taken from them when their lives were up rooted by that tornado.”

Table 2: Key quotes highlighting Mezirow's transformational steps

Transformational Steps	Virginia	Alabama
A disorienting dilemma = 1	1. "The first day was like stepping into another world."  1. "The path the tornado left behind, flattened woods and uprooted trees. It looks like a giant boulder had rolled down the hill."	1. "I don't think there is anyway to be prepared for such a disaster. It will shock you no matter what. It really hit me when we would see dozens of people on the street with cardboard signs offering their labor for money or food."
Self-examination with feelings of fear, anger, guilt, or shame = 2	2./3. "The area we worked in was a poor community, where there is virtually no level of standard even close to what I grew up in."	2./3. "We mostly picked up broken bricks, glass, bathroom tiles, porcelain, and things like that. On occasions we would find toys, books, and appliances... We have to remember that all of these things were peoples belongs that got taken from them when their lives were up rooted by the tornado."
A critical assessment of assumptions = 3	3. "I expected to see a house in shambles, but I wasn't prepared for the filth and infestation."	
Recognition that one's discontent and the process of transformation are shared = 4	4. "I could tell they (the family) were all exhausted and wished that a snap of their fingers could return normalcy."	4./5. "I feel both accomplished and completely not so. I did a lot of work, picking up debris (wood, plastic, shattered mirrors, crumbled tile) but it's the kind of work that to be thorough is slow, and there is not much to show for it."
Exploration of options for new roles, relationships, and actions = 5	5. "I did this to develop relationships with these folks to let them know that there are others that care and can help."	

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Planning a course of action = 6  Acquiring knowledge and skills for implementing one's plans = 7	6./7. "I don't know the conditions we will be working in, but it shouldn't matter, it's time to kick butt and take names!"	6./7./8. "I had very high expectations of 'changing the world' ... Doing this trip definitely pushed me out of my comfort zone."
Provisional trying of new roles = 8	8. "I have never done community service on this level before."	8./9. "Whenever we were seen working, we were thanked. I believe that the idea of a group of Michigan College students taking time out of their break to help restore normality to the community was enough for them to feel like they were not a forgotten city. That was enough to make us feel important."
Building competence and self-confidence in new roles and relationships = 9	9. "We all were grossed out, but overcame everything and got the job done."	8./9. "It was my obligation. I knew I had an obligation to the group to keep everyone going."
	9. "What stands out the most in my mind from the trip was how awed people were by our presence."	9. "This was a new experience for all of us so that really brought us together as a team.
	9./10. "I think our impact will be greater than we recognize."	Every time I see anyone from our group, we went through a lot together, this brings us all together."
A reintegration into one's life on the basis of conditions dictated by one's new perspective = 10	10. "It might be a small week-long trip for me, but I could mean the world to someone that needs help."	10. "When people have asked me about my trip, I told them about the lack of needed publicity and the need for more help, especially in the low-income areas. I also retold many of the stories from the survivors I had spoken to in hopes to show people just how intense the storm really was."

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The participants in both programs framed their SCML teamwork or group values as a part of serving others, understanding that they had a small service role in a much larger humanitarian logistics project. The Virginia participants worked in a single house and it was very easy for them to see a measureable difference from the start to the end. One participant noted, “The before and after pictures do not even look like the same house!” Since the Alabama group jumped around to complete various logistical tasks, many of the group’s participants commented that they did not always feel like they were making a visible, measurable difference. In particular, the Alabama team spent two days cleaning up empty lots where homes once sat prior to the tornado. Some members described their efforts as futile because there was so much debris. Another described how the task did not match her expectations: “It was a little disheartening the first day because we were picking up an empty lot. I thought it would be more hands on with actual families. We didn’t meet any families (at first) that were affected by the tornados. I had very high expectations of changing the world and it doesn’t feel like I did anything after the first day.” This demonstrates how learning through the reality of a disorienting, almost insurmountable, SL experience can be transformational. The need for leadership and logistics when faced with major change became real to students.

### **Discussion**

Three communal themes emerged from the two distinct projects. The first theme was the shared experience of shock and unpreparedness for the devastation, followed by noted resolve to be a part of an active solution. In particular, both groups referenced the amount of time that had passed and yet little to no change had happened in either location since the initial storm. Along with this theme was the recognition of the socio-economic strata: wealthier areas were being rebuilt and the poorer districts were the ones still devastated, not receiving as much (if any) assistance. Universally, participants at both sites used this as a point of action. Their writing reflected not only this observation of social injustice, but also served as a rallying point that sparked their desires to right a societal wrong. In Virginia, participants described what they saw as human nature working to persevere over a natural disaster. In Alabama, participants focused on the breadth of poverty and its effects (likely because that group spent more time being exposed to different people through their distribution center work). Alabama participants spoke more to their feelings that they were not doing enough, and of sadness when “seeing people who had no way out [of this lifestyle].”

The second structure was recognition of privilege. Participants in both groups expressed thankfulness and an appreciation of their own privilege, upbringing, and realization that their homes were still intact. Participants often spoke of being moved out of their comfort zone, and a newfound appreciation of their basic needs: a bed, a home to return to, a house with heat or air-conditioning, basic necessities, and an assurance that there would always be nutritious food to eat, partly because of stable infrastructure and uninterrupted supplies via logistics.

Finally, the enduring theme in both projects is transformation through service. Not just with the physical transformation of bricks, wood, and mortar, but also with the transformation of lives. A goal in the SCML is to offer participants the means to provide positive social change. Both teams demonstrated how moving through a positive societal change creates a more lasting personal transformation for the participants as well as those served. In Virginia, the home’s matriarch now gives back by serving as the county’s “Tornado Advocate.” The Virginia family was transformed by the community outreach and by this team of college students. The

homeowner and her family continue to transform the lives of others. Reciprocity and servant leadership resonated beyond the student learner and permeated throughout the community. In Alabama, the participants' primary efforts were at the preliminary stages of the rebuilding process – even though eight months had passed. While at first the group was met by suspicion and skepticism of a homeowner they were serving, appreciation was later expressed by her and others as students' efforts were recognized and understood. As the participants spoke to another man who played with his grandson on the site of their former home, he reminisced about the way things “used to be.” He looked forward to a time when his home could be rebuilt again, for him and future generations of his family. The largest noted measure in this area was the impact of serving others while in their presence. When each team could serve actual people, their personal satisfaction seemed to increase. When cleaning an empty lot or organizing a warehouse, the Alabama team felt somewhat inadequate as volunteers. The connection to human loss and the ability to provide some tangible service to a person or family seemed to increase the transformation for the participants, who developed a keener sense of their personal servant leadership ability and potential.

### **Service-Based Leadership Education**

Leadership education must be multifaceted and multidisciplinary in nature (Buschlen & Guthrie, 2014). Educating and developing social and civic minded leaders requires extending the academic experience to both curricular and co-curricular leadership opportunities focused on societal awareness, civic engagement, ethics, service (Dugan, 2006, Jacob, 2003; Komives et al., 2005) and in this case, disaster relief. Conger (2013) noted that some academic leadership programs leave functional gaps: “a reality gap, a skill intensive gap, and an application gap” (p. 78). The first two gaps have curricular implications while the third gap has implications for the teachable environment, which should extend beyond the classroom and include critical reflection (Conger, 2013). Co-curricular activities and events, such as service projects, do extend beyond the classroom setting and allow students to understand the breadth and depth of social change leadership and the need for personal relationships. Ultimately, co-curricular activities expand on the notion that students should make a difference in their communities (Komives, Lucas, & McMahan, 1998).

Supporting others through service activities has been shown to cultivate citizenship and build leadership skills (van Dierendonck & Nuijten, 2011). Moreover, these endeavors permit students to build empathy skills, and ongoing evidence points to community service as a force that fosters student development for those who are engaged (Berger & Milem, 2002). What may be missing in these co-curricular endeavors are the structured reflections more commonly found in academic leadership programs (Jenkins, 2013). For this project, personal reflections were integral in terms of demonstrating social change leadership characteristics that emerged throughout the process.

The research team collected qualitative data from participants in two unique data collections following separate natural disasters. The participants' journal entries and responses in groups allowed for a better understanding of their experiences using their own voices as a source for rich, descriptive data. Through participants' words and reflections, the research team was able to develop an understanding of how the students served others and as a result of their participation, were impacted and transformed.

The researchers in this study worked to develop a “complex, holistic picture” (Creswell, 2013) through the use of data collected from participants, “in a natural setting” (p. 15). Using a phenomenological analysis approach, themes appeared in each data set as “thick descriptions” that described “details, contexts, emotions, and the webs of social voices, feelings, actions, and meaning,” while providing insights into participants’ understanding and changing perspectives during and after the service project (Denzin, 1989, p. 83). The success of this study demonstrates that qualitative data and analysis are a practical choice for studies that look at how students connect a learned leadership framework to practice. Moreover, this study demonstrates how universities and leadership educators are well disposed to working in unison with humanitarian organizations that provide relief services in challenging times, as major disasters necessitate civic involvement-- particularly from those with leadership awareness and logistics aptitude.

### **Assessing the Value of Similar Service-Based Programs**

Programmatic assessment in higher education has started to link to other facets of university life as well (Ewell, 2009). Assessment is pervasive in higher education with limited research in the context of academic-based leadership education programs (Goertzen, 2012). Similarly, programmatic assessment is gaining momentum in co-curricular venues as well. This project can serve as a possible qualitative data collection model for programmatic assessment efforts for both curricular and co-curricular entities since assessment works best when it includes both academic and experiential learning outcomes (Banta, 1997). Although both sites in this study were disaster related, future data collections would work with any sort of community service or service-learning endeavor as the questions were broad enough to work in any setting and with any cause. Questions can easily be modified to match learning outcomes or programmatic goals. Replication of this project would provide valuable qualitative assessment data for university volunteer centers and other co-curricular facets of service-based university life (e.g. Alternative Breaks or other service projects). For programs like this, the connection to leadership development is often implied, but that must be corroborated with data of all forms.

### **Limitations of this Project**

Both data collections served as pilot projects, and as with all qualitative research, capture a specific set of experiences, which may or may not be similar to what future participants experience during disaster relief. Future data can be mined in a variety of complimentary ways; quantitative data are much more readily available for analysis of similar projects, while qualitative humanitarian logistics experiences are intensified. The researchers in this study plan to continue to look at future data collected from these participants as well as new data from similar projects and participants.

### **Future Experiences**

Examining a participant’s personal growth in a longitudinal study would provide stronger data for those who participate in multiple SL programs over the course of their collegiate career.

Looking at national service demographics for similar humanitarian logistics projects may also provide additional research angles. Are there gender differences in approach and perspectives regarding service-learning and leadership? Are males (or females) less apt to keep a detailed prompt-based journal but still serve in equivalent numbers? Is there a better mechanism



to collect personal narratives from participants based on gender identity? Understanding the assortment of opportunities and experiences offered by collaborating agencies and organizations could help in course design to move from a one-size-fits-all approach. Do different agencies advocate different styles of leadership? What amount (depth, breadth) of leadership knowledge is gained by unpaid (and paid) service providers employed by humanitarian relief organizations? Additional research in this area will help “explain both “where” and “how” service-learning experiences should be used to achieve the desired learning objectives” (Yorio & Ye, 2012, p. 25).

### Conclusion

Formal leadership education is a trend gaining in momentum, yet only 6% of American college campuses have a structured leadership program (Owen, 2012). Still, many informal leadership development opportunities exist outside of the classroom where leadership skills can be learned, honed, and applied. Leadership educators can foster these skills in students with short service experiences or with week-long service trips. Choosing to give up a week of time to serve others is one thing, sharing that experience with others to understand it more deeply is another. This paper delved into the shared experience of participants following a natural disaster. It outlined data collection methods and refinements with the hopes that other programs can begin to see service as much more than a number of hours served or number of students who serve. Found within a week-long service project are rich, personal narratives that offer a first-hand glimpse into individual transformational learning and outlines the leadership development process. Examining personal stories is a possible way to better understand seamless leadership learning while potentially providing data for programmatic assessment at any college or university using a similar tool linked to pre-determined learning outcomes.

Finally, this project demonstrates how a university’s service initiatives, both academic and co-curricular, can readily complement the efforts provided by many humanitarian organizations in promoting a sense of community, education, citizenship, security, and resilience. Service to others in humanitarian disaster relief offers affected communities and agencies much sought after support and provides leadership learning for student participants. That human capital helps to improve lives impeded by disaster while participants gain leadership knowledge and skills in key areas of logistics, service, and change. Similarly, universities uphold their mission by bringing greater attention to global challenges through leadership education and service.

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