

## **Evidences of Transformative Learning in Service-Learning Reflections**

**Ren Hullender<sup>1</sup>, Shelly Hinck<sup>2</sup>, Jeanneane Wood-Nartker<sup>3</sup>, Travus Burton<sup>4</sup>, Sue Bowlby<sup>5</sup>**

*Abstract: Service-learning environments are complex learning contexts that generate a level of disequilibrium or anxiety that may or may not result in transformative learning. This phenomenological study examined student reflective writings from an Honors service-learning course at a medium-sized mid-western university for evidences of transformative learning, the precipitating disequilibria, and the significant pedagogical structures underlying growth. Although all students learned and encountered disquieting experiences, only half the participants exhibited levels of transformative learning. Results indicate that transformative learning requires time, space, and appropriate scaffolding to develop or augment personal internal systems of adjusting what one thinks and how one thinks about new information and experiences. The results further suggest that a framework of iterative service experiences, grounded in course content, readings, faculty-student-community dialogue, and continuous, thoughtfully designed, reflective practice can maximize transformative learning potentials. Future research should continue to explore how service-learning is experienced by individual participants and what contextual factors are essential for increasing the likelihood that transformative learning will occur.*

*Keywords: Service-Learning, Transformative Learning, Reflective Practice.*

Over the past three decades, higher education has been called upon to reexamine its institutional commitment to service. Concerned that higher education had abandoned its mission of addressing community needs, Boyer (1990) encouraged universities to reaffirm the need for higher education to serve American society by challenging faculty to become reflective practitioners moving back and forth between theory and practice to bring the university classroom to the daily problems of real people in real neighborhoods. Boyer offered that the goal of higher institutions should be to connect action and theory to practice in the name of service.

---

<sup>1</sup> Department of Art & Design, Central Michigan University, 1202 S. Washington Street, Mount Pleasant, MI 48859, hulle1r@cmich.edu.

<sup>2</sup> Interim Dean, College of Communication & Fine Arts, Central Michigan University, 129 Moore Hall, Mount Pleasant, MI 48859, hinck1ss@cmich.edu.

<sup>3</sup> Department of Human Environmental Studies, College of Education & Human Services, Central Michigan University, 195 Ojibway Court-442, Mount Pleasant, MI 48859, wood1bj@cmich.edu.

<sup>4</sup> Service-Learning Coordinator, Faculty Center for Innovative Teaching, Central Michigan University, 250 E. Preston Drive, Mount Pleasant, MI 48859, burto1tj@cmich.edu.

<sup>5</sup> Department of Human Environmental Studies, College of Education & Human Services, Central Michigan University, 195 Ojibway Court, Mount Pleasant, MI 48859, bowlb1sk@cmich.edu.

“Service,” according to Boyer (1990) “is not just something students do in their spare time; it connects back to the core curriculum and the search for shared values” (p. 26).

Service-learning, a teaching model that intentionally integrates academic learning and relevant community service, addresses the disconnect between higher education and society identified by Boyer, and offers a potentially transformative pedagogy for student learners. Volunteer service opportunities, or doing for others, provide meaningful experiences on college campuses. However, service-learning is a pedagogical framework that employs an algorithm of practice to principle to practice that guides the application of academic knowledge and skills in meaningful community action. In the community-as-classroom, students connect and engage course content with “the tools, concepts, and facts of the particular learning situation” (Eyler & Giles, 1999, p. 184). Scholars believe that participation in high quality, well designed service-learning experiences will yield thoughtful and responsible citizens who are committed to democratic ideals.

Heightened learning and student development are key outcomes that have attracted the attention of service-learning scholars (Astin, Vogelgesang, Ikeda, & Yee, 2000; Eyler & Giles, 1999; Markus, Howard, & King, 1993). Researchers believe that service-learning contexts may generate a level of disequilibrium or anxiety and a heightened urgency to learn, resulting in an understanding of concepts that is often deeper, more meaningful, and more relevant. Mezirow (1991) described a person’s successful response to the disquieting dilemma and/or the urgency to learn as transformative learning. Transformative learning is “the process by which we transform our taken-for-granted frames of reference, e.g., perspectives, habits of mind, mind-sets, to make them more inclusive, discriminating, open, emotionally capable of change, and reflective so that they may generate beliefs and opinions that will prove more true or justified to guide action” (Mezirow, 2000, p. 8).

While scholars have noted the possibility that a service-learning experience may have transformational impact (Eyler & Giles, 1999; Feinstein, 2004), more evidence linking the outcome of transformative learning to the specific characteristics of service-learning experiences is needed. In an effort to explore how service-learning may yield transformative experiences for participants Kiely (2005) proposed a model that “offers a useful explanatory lens for guiding critical and transformative service-learning pedagogy and engagement” (Kiely, 2005, p. 6). Guided by Mezirow’s transformative learning assumptions and Kiely’s research on service learning and transformative learning, this study seeks to identify evidences of transformative learning in an honors service-learning course with the hope that this will yield information about the relationship between transformational learning and the service-learning context.

### **The Nature of Transformative Learning**

Mezirow (2000) proposed that learning occurs in four ways: “by elaborating existing frames of reference, by learning new frames of reference, by transforming points of view, or by transforming habits of mind” (p. 19). Key to identifying and understanding transforming points of view and habits of mind, are the interpretations and re-interpretations learners assign to events to make meaning of their experiences. Meaning structures (perspectives and schemes) shape an individual’s interpretation of an event through their use of current predispositions and psychocultural assumptions.

Transformative learning may occur as the result of a “disorienting dilemma,” gradually and cumulatively over time (Mezirow, 2000), or as a developmental process (Daloz, 1999; King & Kitchener, 1994; Taylor, 2000). The process may be linear or non-linear (Sinnott, 2003; Taylor, 2012), and may or may not involve a higher level of thinking (Cranton, 2006). Evidence of transformative learning occurring as the result of a single, isolated event or in a dramatic “burning bush” (Dirkx, 2000) fashion is the rare exception rather than the rule (Cranton, 2006; Daloz, 1999; Dirkx, 2000).

Drawing from Burns’ (1978) research on transactional and transformative leadership, Enos and Morton (2003) offer a framework concerning transactional and transformational relationships within a service-learning context that supports Mezirow’s assumption involving transformative learning. Transactional relationships are defined as instrumental, often designed to complete short-term tasks that are mutually beneficial to both parties; long-term change is usually not an outcome. In transformational relationships, however, parties “explore emergent possibilities, revisit and revise their own goals and identities, and develop systems they work within” (p. 7), resulting in relationships where all grow and change. Clayton, Bringle, Senor, Huq, and Morrison (2010) note that both transactional and transformational relationships are important within the service-learning context, indicating that transactional relationships and learning outcomes may be key in some situations while transformational relationships may be the goal in others. Finding ways to measure and assess the types of relationships that service learning partners have created is needed so that all individuals can more “effectively discuss, diagnose, and as desired, deepen the quality of the interactions” (Clayton et al., 2010, p. 8).

Extending the discussion concerning Mezirow’s learning theory and drawing from a detailed case study where students participated in a service-learning program in Nicaragua, Kiely (2005) found five categories that describe how students experienced transformational learning: contextual border crossing, dissonance, personalizing, processing, and connection. Contextual border crossing describes how “personal, structural, historical, and programmatic elements of the service-learning context form the unique nature and impact of students’ service-learning experience, either enhancing or hindering possibilities for transformative learning” (p. 9). Crossing contextual borders reflects the process where students think critically about their current identity, position and power and how this impacts how they experience border crossing, physically, socially, politically, and culturally. Dissonance refers to the incongruence students often experience when participating in a service-learning activity. Kiely found that high intensity dissonance that is political, economic, historical or social accounts for transformational learning when it encourages students to “reexamine their existing knowledge and assumptions regarding the causes and solutions to ambiguous and ill structured problems” (p. 11). A third component of Kiely’s model is the idea of personalizing. Personalizing represents the emotional response students have to different types of dissonance. The personalization process often precedes a sense of empowerment and self-efficacy that students feel when reflecting on the fears they have been able to overcome. The fourth category is processing, which entails “rational, reflective and importantly, dialogic ways in which students explored and reevaluated their assumptions or engaged with others to understand the origins of and solutions to social problems” (p. 13). Last, connecting considers the “affective dimensions ... in which students develop deeper relationships” (p. 13) with the community members with whom they are working. These five dimensions of learning reflect the process of transformational learning that often accompanies service-learning experiences.

### **Reflective Practice: Conduit for Transformative Learning**

Kiely and Mezirow note that if transformative learning is to occur, reflective practices are essential. Hatcher, Bringle, and Muthiah (2004) offer that “When reflection activities engage the learner in examining and analyzing the relationship between relevant, meaningful service and the interpretive template of a discipline there is enormous potential for learning to broaden and deepen along academic, social, moral, personal and civic dimensions” (p. 39). Grounded in John Dewey’s work in experiential learning, reflection serves as the connection between disciplinary concepts and concrete experiences. Sometimes referred to as the “hyphen in service-learning” (Eyler & Giles, 1999, p. 171), reflection ties community service activities to academic learning, often resulting in the creation of a new understanding of the ideas addressed. Service-learning experiences often create environments that challenge students’ assumptions of societal practices and perceptions and stereotypes of others resulting in a sense of disequilibrium. It is because of this sense of disequilibrium that reflection is needed to help students “clarify and critically evaluate personal values, and further develop values and attitudes based upon new knowledge and experience” (Hatcher, et al., 2004. p.42).

Research on reflection has found that the quality of the reflection activity impacts the academic outcomes associated with service-learning. Specifically, Eyler and Giles (1999) indicated that the “more rigorous” the reflections, the more likely students will have a greater understanding of the subject matter, critical thinking skills will increase, and problem solving skills will be enhanced. Rigorous reflection questions that encourage service-learning participants to analyze the need for the service, to explore critically the causes of the issue surrounding the service and how to address the issue in a structural and systemic way as well as personal assumptions and stereotypes that students have regarding the issue are important and need to be included in the reflections. In an effort to more fully understand the relationship between reflective practices and academic outcomes, Mabry (1998) examined how student outcomes are affected by the frequency and variety of reflection activities. She found that adequate time, contact, in-class reflection, and engaging communicatively with others impacts a students’ civic and academic outcomes. Specifically, she found that reflection needs to occur regularly (weekly), written reflection must be ongoing and summative, and in-class reflections uniquely impact student understanding of their subject matter. Mabry further indicated that student gains in personal social values and civic attitudes were higher when students engaged in both ongoing reflection and summative reflection. In regards to academic gains, she found that if students are given the opportunity to engage in conversations with instructors, service site supervisors, and classmates, students are able to more carefully and critically connect their service experiences with the academic subject discussed. Reinforcing the importance of engaging in quality and consistent reflective practices, Hatcher et al. (2004) observed, “reflection that is structured, regular, and clarifies values independently contributed to the quality of the educational experience for students” (p. 42). Similar to Mabry’s research, they found that the quantity of reflection was less important to the educational gains of students than the quality of reflection. The quality of the reflection focuses on the structure and the clarity of the reflective practice.

### **Research Questions**

*Journal of the Scholarship of Teaching and Learning, Vol. 15, No. 4, August, 2015.*  
*Josotl.Indiana.edu*

Transformative learning is predicated upon multiple and complex factors that are not readily evident in the linear and reductivist analysis of learning outcomes. Identifying the nature of transformative learning in a classroom setting or as a result of teaching practice is highly problematic due to variable learning conditions with the student and the collective synergy of the class, conditions within the experiential learning environment, and conditions within the course content and pedagogical structure. Alhadeff-Jones (2012) further explained that transformative learning is “produced/inhibited by the multiple changes that constitute the learner’s own evolution. According to this assumption, the evaluation and description of transformative learning therefore becomes much more difficult to anticipate, describe, and evaluate” (p. 183). Recognizing that while a service-learning experience may have transformational impact, additional research is needed that continues to define what transformative learning entails, to recognize transformative learning within a service-learning context, and to identify key characteristics of service-learning experiences that encourage transformational learning. Kiely (2005) argued that “it is crucial that researchers discover and explain more holistically the underlying pedagogical and contextual mechanisms that make service-learning a distinctly transformative educational enterprise” (p. 22), which is foundational to this research. Questions guiding this study were:

- RQ 1: What were the evidences of change (transformative learning) in student perceptions and behaviors as a result of their community experience?
- RQ2: What were the triggers or incidents of disequilibrium? How did the students respond to the disequilibria?
- RQ3: How did the structure of the course scaffold the students’ learning in complex community settings?
- RQ4: How did the experiential community-based college course impact participants’ thinking skills?

### **Description of Study**

The study was contained within the parameters of a week-long Honors service-learning course, conducted in a rural community on a small island in the Great Lakes, June 2013. The island is 13 miles long, three to six miles in width and is a part of the archipelago. Located approximately 32 miles from the mainland, the island has a year long population of 657 that swells to 3000 during peak tourist season. Tourism, government services, and construction serve as the core occupations.

To maximize the learning during the immersive week of service, multiple scaffolding elements were embedded in the structure of the course. The course required students to read and write responses to articles on the dynamics of service and civic engagement, research and present topics of social concern in morning course sessions, organize and lead a series of service-learning events and projects within the community during the day, and participate in daily group reflections each evening. The instructors of the course worked carefully with nonprofit leaders on the island in the development of the service projects. Students partnered with agencies that addressed issues of environmentalism, cultural preservation, rural and alternative education, and elder care. Student teams of three to four students were assigned to lead the class through each day’s service experience. The week began with an immersion into the island community and

*Journal of the Scholarship of Teaching and Learning, Vol. 15, No. 4, August, 2015.*  
*Josotl.Indiana.edu*

culture; students visited key island businesses and services, e.g., Chamber of Commerce, public school, medical facility, community center, historical society, and watched a video concerning island history which provided an increased understanding of the residents and of the need for the service projects.

The organization of the projects have developed as a result of several years of conversations and relationship building between the instructors and the agency representatives. Once on the island, students were assigned to daily leadership teams and took turns leading the class through the service specific to that day. Student leaders were responsible for orienting and educating the class about the organizations they would be working with, identifying the logistics needed for the completion of the service, and leading the class through reflection at the end of the service.

Service projects during the week were focused primarily on preparing the island for the summer season. Working outdoors at six residences of elderly and/or disabled individuals, students raked leaves, picked up limbs, prepared the soil for gardening, and washed outdoor furniture, and windows. Similar chores were performed at the health clinic, marine museum, and the historical park, with the addition of shoveling gravel, cutting weeds, and clearing debris from the beach. At the community center and Commission on Aging, students cleaned interior spaces: furniture, cabinets, floors, and bookshelves. Less physical activities involved data entry for Meals on Wheels, folding newsletters for the local print shop, and stuffing envelopes for the Historical Society. A few students helped to build and stain picnic tables.

In addition to the service that the students completed, they were also required to read articles that addressed service and civic engagement. The readings addressed issues such as how to enter and exit communities respectfully, leader positionality and perspective, privilege, and the importance of reflection. Students completed a pre-course paper, daily journals that connect the assigned readings with their service experiences, and a final reflection paper that was turned in approximately two weeks after the conclusion of the experience.

### **Methodology**

Participants in the study were a bounded group of sixteen Honors students enrolled in an Honors service-learning course at a medium-sized mid-western university; one male, fifteen females. All were traditional sophmores, juniors, or seniors, age 18-22, majoring in various on-campus programs. Socio-economically, participants represented a white, rural, middle class demographic, although a few grew up in slightly more affluent city suburbs. Although everyone had some volunteer experience, only a couple had engaged with curricular service-learning.

After receiving approval from the university research board, the researchers received permission from the students to analyze their reflective writings. This consisted of three types of essays. Preliminary questions, submitted on Blackboard the week prior to the course, established student background knowledge and experience in volunteering, service, and leadership.

The second set of reflections were purposed as short, immediate responses to daily events during the week of service on the island, providing a venue for personal synthesis. In their writings, students interpreted their experiences through readings and daily discussions about entering and exiting a community, insider/outsider perspectives, and leadership development. In addition to the traditional What? Now What? So What? questions, the prompts inquired about situations like:

Why is it important to enter a community effectively? What steps are we taking to ensure that we are respectful of the island community?

How does your insider/outside status impact how you engage in service with the island community?

How did the decisions that you made reflect the Seven Cs of the Social Change Model of Leadership Development?

What struggles did you encounter and how did you address them?

A third set of reflective writings consisted of a final reflection paper that encouraged students to integrate course readings, service experiences, and future civic engagement activities that was also due two weeks after the conclusion of the course. In the summative writing assignment, students were asked to respond to the following prompts:

1. Utilize at least 7 of the readings assigned throughout the course, then reflect upon what constitutes effective and meaningful service. What are the assumptions upon which you have constructed your definition of effective service? What elements/ideas need to be incorporated into your definition of effective/meaningful service? Please integrate the articles carefully into the final paper.

2. Choose one issue that our service projects have addressed. Think about what you initially thought about this issue, what you currently think about the issue, and what you have learned about the issue. Integrate the role that the service projects played in your understanding of this issue.

3. Finally, explore what it means personally to be an active citizen and the lessons you've learned about service and yourself as a result of your experiences on the island. Be specific; offer a careful analysis of the ideas you offer. What service role will you play when you return home?

Reflective writings were digitally collected from Blackboard according to each participant and de-identified. All references to participants in this study were according to a randomly assigned protocol (i.e.: Participant 1, Participant 2, Participant 3...). The instructor of record solely maintained a coded list of identities on a password protected external harddrive.

The primary question guiding the heuristic inquiry, which became research question number one, asked: What was the evidence of transformative learning in student perceptions and behaviors as a result of their community experience? First, as a part of the initial analysis, reflection responses were also run through NVivo qualitative data analysis software in order to obtain another level of familiarity with the overall character of participant thinking. Although terminology and ideas from the readings were meant to inform student thinking and can be indicators of student learning and application, for the purpose of this analysis, it was important to bracket out familiar phrases to see how those ideas emerged in subsequent student comments and actions throughout the week. Second, open coding of the data (Strauss & Corbin, 2014), identified all incidences of learning as evidenced in the student reflective writing. After independently reading and coding the data, the group of three professors and a graduate student – all experienced service-learning instructors, qualitative researchers, and co-authors in the study, met in three two-hour sessions to compare notes and identify emergent themes in the data.

While an external data analysis, independent of the instructor, helped to control bias, the instructor of record and co-author, who designed the course and orchestrated the learning environment, was immersed with the students in the process and ethnographically privileged to have deep knowledge of the experience (Patton, 2002). Consultation with the instructor of record during the data analysis process regarding her observations of the service-learning experience brought correction, clarity, and confirmation to the findings.

Third, an effort was made to focus only on incongruent assumptions; inconsistent remarks; subtle and partial shifts in understanding (Daloz, 1999), and evidence of extra rational or non-reflective learning such as imagination, intuition, and emotion in everyday occurrences (Cranton, 2006; Dirkx, 2000; 2001; 2009; Mezirow, 2009). Mezirow stated that learning occurs in four ways: “by elaborating existing frames of reference, by learning new frames of reference, by transforming points of view, or by transforming habits of mind” (p. 19). These categories were helpful in our research to filter out types of learning that demonstrated a transformed perspective of the content or a higher order way of thinking *about* the content.

Evidences of transformative learning were further examined through the lens of a developmental hierarchy of reflective judgment to determine how the community-based service experience might have impacted participant thinking skills (RQ 4). *Steps for Better Thinking Skill Patterns* (Wolcott & Lynch, 2001), a structure for categorizing progressively more complex thought patterns based on King and Kitchner’s (1994) reflective judgment model, delineates four developmental steps or levels of reasoning skills and the underlying worldviews or assumptions that inform those strategies. Along with defining characteristics of each step, the *Steps for Better Thinking Skill Patterns* [Appendix 1.] articulates thinking flaws or shortcomings associated with each level. For example, thinking level 2 identifies “Attempts to control own biases. Logically and qualitatively evaluates evidence from different view points” as positive or appropriate qualities of thinking at that level. Conversely, “Reluctant to select and defend a single overall solution as most viable” and “Selects a solution but unable to express adequate support for its superiority over other solutions” indicate limitations of thinking associated with that particular level. By locating student reasoning – even in brief statements - within the thinking skills parameters, we purposed to identify the students’ current level of thinking and any possible transformative changes that might occur (Wolcott & Lynch, 2001).

Although the model defines broad advancements in thinking that typically occur in small increments over time, we also knew that incongruent assumptions, inconsistent remarks, or subtle and partial shifts in understanding (Daloz, 1999) were indicators of growth. Thus, we divided the steps into smaller observable stages in a chart to identify finer characteristics of each participant’s thinking. Within a particular step, we sought to define whether the participant was: 1) reaching for or attempting a new level of thinking, 2) demonstrating competency, 3) displaying a high proficiency, or 4) aware and ready to ascend to the next step. An “X” on the chart indicated current thinking practice. Where we were able to ascertain a shift to higher or more complex thinking levels, a second “X” indicated the extent of probable growth based on their post-experience reflective writing.

## Findings

Students pervasively discussed four specific aspects of the week as disequilibria that emerged as themes in the study: working with the predominantly elderly population, the



unfamiliar community structure, leadership expectations, and the meaningfulness of their service. These are consistent with broader categories of concern typically encountered in service-learning projects: adjusting to site and community, stereotypes/perceptions of community members, personal roles in service, and what constitutes meaningful service (Cress, Collier, Reitenauer, & Associates, 2013). Because we were focusing on evidences of learning precipitated by dissonant experience, we chose to investigate these four student-identified factors as sites of potential transformation. These primary research questions guided this part of the analysis:

RQ1: What were the evidences of transformative learning in student perceptions and behaviors as a result of their community experience?

RQ2: What were the triggers or incidents of disequilibrium? How did the students respond to the disequilibria?

### **Evidences of Disequilibria**

*Working with the elderly population.* Several of the service projects involved working for and with elderly island residents, which provided multiple opportunities for exposing and addressing misperceptions of the age group. Twelve of the 16 students expressed preconceived notions about the interests, needs, capabilities and values of the elderly population on the island. Student assumptions ranged from lacking physical acumen, lacking life experience, and having a limited source of knowledge; to lacking exposure to younger generations, having negative perceptions of youth, and hesitating to work with young people; to being stubborn, unenthusiastic, lonely, senile, conservative, traditional or narrow-minded; uninvolved in their community, dependent upon others to survive, and want to reassure themselves they aren't helpless. Still other presumptions conveyed that the elderly chose island life to escape the real-world, to live in isolation, and to live at a slower pace in their old age.

Contrary to their expectations of the elderly, participants described meeting and working along side hard-working, resilient, kind, trusting, passionate people with both breadth and depth of life experience, and hearing insightful stories as well as informative and interesting presentations. Pervasive exclamations of shock, surprise, and amazement, as well as multiple unfounded assumptions in their daily reflections attested to a collective lack of understanding and a commensurate disequilibrium.

For most, the exclamatory statements suggested a new awareness and heightened readiness for further reflection. Course readings, group discussions, and repeated interactions during the week facilitated an array of transformative thinking about the elderly. Three of the twelve explicitly changed their perspectives in their reflection responses. During the service period, Participant 12 admitted that working with one of the older couples challenged her assumptions about elderly physical capabilities, work ethic, enthusiasm, and beliefs. Participant 1, in her Final Paper, stated:

hearing the stories and rich history the elderly told us really changed my original stereotype that almost all elderly adults are senile and have some sort of dementia. In fact, I even got to hear somewhat of the love story regarding how Joe and Lois found each other at low moments in their lives. My previous volunteer work with the elderly was in a dementia center, so I had assumed that almost all of the

elderly would be that way eventually. I was practically ashamed of myself for having thought such things because these individuals had such an incredible amount of experience with their lives, and one of the things that I took away from this was to understand that these people had so much to offer. Therefore, it's clear that I have learned a great deal about this issue. More specifically, I've learned that ageism is just as bad, if not worse, than racism or sexism. It can make people who are elderly feel useless or incompetent, which is the opposite of what they should be feeling since they have attained the accomplishment of making it so far in life. I've also learned the classic lesson of never judging a book by its cover. It's easy to look at someone and make so many assumptions about them, but this is incredibly unfair because that person is never given the chance to explain their story or show what they are capable of.

Participant 4 reexamined her assumption of stubbornness that evolved from observing her grandparents and formulated an enlightened perspective of determination and self-sufficiency. In Part II of her Final Paper, she illustrated her change in thinking:

I have had quite a bit of experience with the elderly, however I don't think I've ever sat down and strongly considered the assumptions that I have made in the past while working with them. This experience has made me come to question some of the assumptions that I've made in the past .... Large portions of my interactions with the elderly are through my experiences with my grandparents. They have always been very stubborn about asking for help. However, I've always thought that this was just a characteristic of my particular grandparents. I learned throughout the week that many of the elderly individuals we worked with felt the same way about asking for help. If it was something that they themselves couldn't do, they typically didn't have a problem asking us to do it. However, tasks that they themselves could do were a different story. When working with Sally, she was more than willing to have us clean her windows and do tasks that weren't possible for her to do on her own, but cleaning off the table was out of the question. We asked her several times whether or not she would like some help cleaning the table off, but she continually said that she could do it herself. There were other instances throughout the week that followed along the same lines. While this self-reliance may be a good thing, I think that this realization definitely surprised me and changed my way of thinking about individuals that are elderly.

*The unfamiliar community structure.* After touring and living on the island for nearly a week, it was clear to the students that the decision to reside there permanently impacts lifestyle choices. Comments were diverse and often related to outcomes resulting from the isolation of island life, e.g., age of residents, and access to goods and services. This was evidenced by Participant 7, who wrote:

I don't truly understand what would motivate someone to live here year round. Don't get me wrong, I have greatly enjoyed the time that I have spent here. The environment is unique and the people are extremely friendly; however, in my mind it doesn't outweigh the many challenges that permanent residents face. For

instance, if you are seriously injured or ill, you can't be treated on the island; everything on the island is more expensive; waste disposal (is different); (there are a) limited amount and variety of goods; and there are limited and different occupational options. For example, the man that owns the hardware store is also the island veterinarian and EMT. Residents say although life there can be challenging, they believe it is worth it to be able to live a peaceful existence in a close knit community. All of these concepts were so different than what I'm used to but clearly work for them, which allowed me to see how different communities can (effectively) function in unique ways.

Although some of the students experienced a quiet sense of disequilibrium with island living and never fully came to understand why islanders would choose to reside in this location, most came to fully appreciate the people who they worked "with." The recognition that they made the choice to live differently did not diminish their desire to serve but provided the opportunity to reflect and to decide that the decision was not wrong, but different than the choices they might make.

*Leadership disequilibria.* Several students came to the island service-learning course with prior service and leadership experience, while others expressed a fear or anxiety in having to lead. Initially, the students approached leadership from varied perspectives that broadly grouped under three headings: Structure or Position, An Act or Effort, or Working With People. Under Structure or Position, participants defined, "leading is itinerary," "leading is planning," "leading is goal setting and common purpose," and "leading is power". Under An Act or Effort, participants described leading as, "commitment," or "completing tedious, hard work". Under Working With People, participants framed leading as, "starting a discussion," "communication," "encouragement, finding everyone a role," "swallowing pride, listening, respecting opinions," and "collaboration." One of the articles that students read prior to their arrival identified seven leadership characteristics. Several students referenced these traits throughout their journal writing and felt that their application of this knowledge helped them to lead with greater confidence, and to include a more open, "Other" focus throughout their assigned day of leadership. In contrast, several participants – surprisingly those who disclosed having led groups before or wanting to lead - expressed difficulty leading. Participants 2, 9, 10, and 11 felt the weight of responsibility, angst, panic, and worry. Participant 13 encountered challenges, but gave no indication that she grew from the experience.

Participant 8 mentioned being nervous about leading - feeling like she had to tell everyone what to do - but had an "aha" moment on Wednesday, when she discovered that to get the job done, she had to organize the tasks and set an example, inspiring others to have the same passion and commitment. In the end, however, she still emphasized a goal-oriented agenda. Participant 15 saw self as leader, but struggled with decisionmaking. Conversely, Participant 16 enumerated insecurities going into the project, but performed conscientiously and well, and was elated with the results.

Two students demonstrated remarkable growth in their understanding of leadership during the week. Participant 1 began writing on Monday about her "nerve-racking" fear of leading, coming to the conclusion on Wednesday that "even shy individuals can lead" by incorporating everyone's opinion and compromising; and finally formulating a personal leadership style by Thursday of "starting a discussion, not giving answers." Participant 1

described a personal system of learning that involved repeatedly taking “small steps to make changes in my life” that apparently allowed her to experience significant personal growth during the week. Such openness to difference and change was also evidenced in her ability to overcome stereotypes and accommodate new understandings of the island structure on Monday, and elderly residents’ physical capabilities and work ethic on Tuesday.

No matter the outcome, the pre-reflection leadership article served as a guide for helping both the students who had previously directed experiences, and those who had not, to work through their day of co-leading their group. Advance knowledge that they would be required to co-lead their group provided them with a support resource to prepare for this opportunity, while still taking them outside of their comfort zone, by applying the concepts acquired through class readings and discussion of their service experiences with faculty members and peers.

*Meaningful Service.* Much of the service involved arduous manual labor, such as raking leaves and picking up limbs. By the end of the week, the altruistic patina of serving had worn off. Students expressed feeling physically tired and emotionally weary. Eleven commented on the role of gratitude as an impetus to serve but openly expressed their weariness by the end of the week. We believe that these responses were a reflection of the felt disequilibria of the moment and not ultimate indicators of learning.

The readings and prescribed methods for respectfully entering and exiting a community appeared to have an indirect impact on student perceptions of the value and meaning associated with the various tasks and jobs they took on throughout the week. Taking the time to get to know the people and places within the island community, as prescribed in various readings, appeared to generally enhance the degree of meaning associated with the tasks performed.

As the students began to develop rapport and connections with the locals, they began to understand who the residents were, how they lived, and how appreciative islanders were of the assistance being provided by the students. This direct line of communication with local residents appeared to provide an avenue to better understand true need, provide a source of motivation and clarify questions as they related to the meaning or impact of the services provided, as evidenced in the following example:

Our service was more meaningful when we gained background information on the community we were helping and had personal interactions with the benefitted individuals, and people like Loretta, Lois, Ann, Joe, and Bill felt more connected and at ease with the people who wanted to serve their needs. If they are more comfortable and happy with us there, we are more comfortable in that environment, asking questions and serving their needs to the best of our ability [Participant 6].

The students recognized the importance of learning about the community first, establishing trust and acting appropriately based on what is truly needed to avoid causing more harm than good. Another student shared that:

If one is not cautious, one simple action could have major consequences for the service you are trying to provide without you even realizing it...By asking questions and learning exactly what the community wants done, we built a relationship on trust...We had to be partners with people and understand that we

were both working towards the same goal, even if we had different ideas about how to reach that goal (Participant 9).

As word spread around the island of the good deeds and services the students were providing, requests for help began pouring in and the positive reputation the students developed provided them with additional encouragement.

Services that “might not seem like a big deal,” were re-interpreted as highly valued when residents directly told the students,

We likely saved her \$1,000. At the end of the day, I was once again reminded why we are offering to help out the island residents. It's because they are so appreciative, happy and thankful to have us there. This realization is what made raking hundreds of thousands of leaves in the hot sun completely worth it [Participant 1].

Participant 6 shared the feelings of Participant 1 by sharing: "...if my small act of service can positively impact at least one person, then I feel incredibly rewarded and justified in expending time and energy to perform the service. It makes me happy!"

Although some of the students recognized that certain tasks were not high visibility service for the island community, in some instances they were able to see how their efforts indirectly helped residents:

It is a subtle service to remove dust from shelves or mop floors, one that is not as apparent as building picnic tables and seeing their use the following day....Ann and Mrs. Cashman were extremely grateful, for the hours we put in one day saves them days of work that can now be put towards other services [Participant 6].

I was so grateful to have such a supportive group of people to work with because it made my service more meaningful in the sense that I knew I was doing it to alleviate hours of manual labor for somebody who could focus their talents on helping the community as well by running this Community Center for everybody [Participant 9].

Students also contributed the success of overcoming exhaustion and completing certain daunting tasks to the synergy that evolved during the week:

One of the things that helped me a lot was the encouragement from my team. I think Wednesday was one of the days where I realized that I was developing great friendships with my classmates. Working with them made things a lot of fun and made it go by so much faster....I was proved wrong when I had thought that everything wasn't going to be completed. When my alarm went off.... I seriously considered sleeping in longer, but then I remembered how grateful all of the people from earlier in the week were for our service. When we cleaned the bathroom...we laughed and joked with each other instead of complaining how disgusting the task was. I think that stemmed from our friendship and complete dedication to serving Ann and the island community [Participant 1].

Some of the students clearly stated that many of the tasks were simple and mundane, but felt a sense of achievement and satisfaction after they developed respect and friendships with the islanders and their classmates. Students understood that the tasks that needed to be accomplished were the tasks that had been identified as important by their island partners, and the recognition that their work was making a difference in the lives of others was the boost needed to continue working when they were tired and desired new tasks. The relationship between community partners and students enhanced the overall student learning experience, and added an affective scaffolding dimension to the transformative learning process.

RQ3: How did the structure of the course scaffold the students' learning in complex community settings?

Almost without exception, students expressed 1) shock and surprise regarding the simple, practical island lifestyle; 2) stereotypic understanding of the knowledge, experience, and physical capabilities of the predominantly elderly population; 3) awkward steps of leading their peers in service projects; and 4) difficulty apprehending the meaning and value of service. While recognizing that course reading assignments and writing prompts explicitly guided student writing, and that several students simply restated information from the texts and discussions without adding any personal extension or contextual annotation, many specific references in relation to daily experiences indicate that the students relied heavily upon the readings for a system of negotiating the new terrain. Entering and exiting a community, insider/outsider perspectives, and – to a lesser degree – the seven Cs of leadership (Astin & Astin, 1996) provided students with metaphors for understanding, a perspectival scaffold, and a system for operating in an otherwise unfamiliar and highly stressful environment. With only an introductory understanding of insider/ outsider status, the students none-the-less actively applied those concepts to define their place within the community, feel more comfortable with difference, and reduce stress.

### **Transformative Thinking Skills**

RQ4: How did the experiential community-based college course impact participant thinking skills?

In addition to coding for transformative learning of course content in student writing responses, data were examined in a way to reveal patterns of thinking that students applied to the learning experiences throughout the week. To unearth evidence of transforming habits of mind (Mezirow, 2000), researchers employed an expanded adaptation of Lynch and Wolcott's (2001) *Steps for Better Thinking Skill Patterns* [Appendix 1.].

Participants who entered the course at zero thinking skill level struggled to cope with the disequilibria of the service-learning environment. To be clear, everyone learned course content and information about the island, and participated in all activities. However, in the examination of thinking skill patterns, evidence suggests that not everyone experienced transformative thinking. Of the eight students who began at level zero, half admitted they did not understand different perspectives with which they were presented and persisted in expressions of entrenched, defensive, or resistant view points during the week. The remaining students demonstrated an awareness of possible perspectives other than their own or indicated a readiness

to reach new conclusions when confronted with new, conflicting information. Although there was marked variability among those four, by the end of the week, there was evidence of some change in perception within each of their writings, demonstrating support for the work of Hatcher, et al. (2004) who use reflection activities to deepen the learning of engaged students.

Upon entering the service-learning course, Participant 13 expressed an inability to understand multiple experiences different from her own, which we identified at thinking skill level zero. However, by explicitly connecting prior knowledge and interest in two particular areas of disquieting circumstances, she elevated not only *what* she thought, but also *how* she thought about her lack of understanding:

At some point during the course of the tour, I realized that I was fairly ignorant about the complexity of recycling. This was disturbing to me because I have been advocating for environmental awareness for years now. But how can I expect to make a difference if I don't even understand the issue.

In reference to the elderly, she commented:

[B]eing a younger and physically more able person, it is hard for me to not only understand the community's perspectives, since I have grown up in a different time and not lived nearly as long, but grasp obstacles associated with age, since I have not yet experienced it. I have an advantage in this area, because I have at least some knowledge on most of the issues that we have been working to solve, which include the environment, health, and care for the elderly.

In her final paper, Participant 13 rethought these issues in larger contexts of making a future difference and planning to do a better job helping the elderly in her family:

We also noted that we don't go and help our grandparents with yard work very often either. This whole experience and reflection as a group taught me how important it is to keep an open mind, because you never know how much someone might need the help. I think this will transfer over into my future service, because I will be more willing to keep an open mind of new activities and listen to whatever the person I'm working with needs done.

These evolutionary statements suggest a willingness and effort to acknowledge the existence of multiple perspectives, identify personal assumptions, and reach personal conclusions, and thus, represent significant indicators of change in Participant 13's thinking level skills.

The remaining eight participants all entered the service-learning environment with a higher set of thinking level skills – a one or two. They recognized their assumptions, sought to control biases, and made an effort to evaluate evidence from different perspectives. The participants' ability to grow in understanding and in patterns of thinking were precipitated by various internal systems for adapting to change. For example, Participant 1 described taking "small steps to make changes in my life," and voiced multiple iterations over several days of what leadership might look like, each time providing a more thoughtful understanding of the role. On Monday, she described leading as "nerve racking" and "explaining to others." By

Wednesday, she opined that even “shy individuals” can be leaders and defined leadership as “making wise decisions for the group.” Later, she referred to leading as, “tasking the group fairly,” to “leading by example,” to an even more open perspective of “listening to others’ opinions” and “creating a team of leaders.” Despite her “fear of being a leader,” by Friday, she further imagined leadership as a shared enterprise of “starting a discussion, not giving the answer.”

Similar to Participant 13, others referenced prior interests and experiences – especially with the elderly – that helped them contemplate differences, recognize personal stereotypes, and overcome biases. Participant 5 developed subsequent plans to help elderly friends and family. Participant 16 relied upon prior experience to dismiss “unfounded personal fears and biases.” Participant 9 referenced experience with her 94 year old grandfather to overcome “foreign” island experience and recognize “personal arrogance and impatience” with the elderly.

Several participants displayed an internal system of openness and empathy to process differences they encountered during the week. Participant 12, admitting a high motivation to learn, remained open-minded by listening, asking questions, and allowing ideas conflicting with her experience to expose her stereotypes. Participant 14 also consciously sought to think empathetically to build upon her prior knowledge and experience. In her reflections, Participant 7 continually referenced openness and empathy to different points of view prior to drawing her own conclusions. For example, her reflection on the simple island lifestyle revealed her unquestioned assumptions regarding shopping and materialism:

I think that shopping is very inconvenient and frustrating for island residents. However, the islanders do not seem to find this inconvenient. It is just their way of life, and they tend to make the best of it. Sometimes this means living a simpler life. In fact, one lady said that all she really needed was one pair of jeans and one pair of khakis. When I stopped to think about her comment, it made perfect sense. I definitely don’t need all of the clothes I have and could live on a lot less. Not having a lot of things makes life simpler, and people learn to appreciate what they have. All of these examples have caused me to adjust my attitudes and mannerisms to better understand their way of life. By putting myself in their place, I can begin to understand what issues are important to them and what issues are not.

In trying to understand a subsequent situation on the island, she again empathized, “Once I thought of the task from his point of view, it made perfect sense.” However, on another occasion, having listened empathetically to another student’s opposing perspective on a topic, she shared that “Although I disagree with her post, it helped me to ponder my beliefs and effectively decide where I stand without the influence of my family.” This change in thinking evolved as a result of the student-to-student peer discussions and from revisiting her personal goals. This reflection outcome clearly demonstrates the work of Enos and Morton (2003) and Mezirow (2000) who described a framework concerning transactional and transformational relationships and their impact on transformative learning.

## Discussion



Transformative learning, often linked as an outcome of a well-designed service-learning experience, signifies a dramatic change in knowledge, skills, and how we understand our relationship to the world around us. Drawing from Mezirow's definition of Transformative Learning, and Kiely's Model of Transformation, this study sought to identify evidences of transformative learning in student reflective writings from an Honors service-learning course.

Mining the reflective writings for evidence of transformative learning can be complicated by multiple factors. First, a convergence of contextual influences determine what might be written. Students bring a variety of knowledge, skills, beliefs, values, intentions, and agendas to the common experience that inform what they see and how they understand it. For example, only one person noted that everyone leaves their doors unlocked, there is no crime, and only one security officer resides on the island year round. Second, while the specific articles and writing prompts explicitly direct student attention to particular conditions for learning, they also become lenses through which students view the experience and predetermine what they see and write about. Thoughts, feelings, understandings not germane to the prompts are less likely to receive focus and attention. Third, daily afternoon discussions, purposed to provide a socialized learning environment to collectively debrief experiences, refine understandings, and diminish anxieties, also persuade thinking in a way that privileges common language over individual observations and personalized learnings. Consequently, in a graded course, students may tend to summarize in their writings what the group has determined as the right answer. Fourth, in examining student reflections as a part of a course, we were aware that the students were writing for a particular audience: the instructor. The hegemonic relationship between teacher and student often disallows candid feedback. In spite of the authentic, deep, personalized learning that may occur, the student is always aware of the resident power relationship in a course and the implied obligation to meet teacher expectations in writing and discussion. The teacher ultimately assigns a grade based on reflective writing and class discussion as stated in the syllabus. Consequently, students may write and say what they think the teacher wants to hear – often exaggerating those experiences and, conversely, minimizing thoughts and experiences inconsistent with course expectations (Cranton, 2006). Assessing literal statements in reflection responses for evidence of transformative learning was thus problematic. As researchers, we were explicitly aware of these possible limitations and attempted to bracket out common phrases in the writings and to look more deeply into the meanings students ascribed to experiences as well as the assumptions, inconsistencies, and shifts in understanding as significant evidences of transformative learning (Daloiz, 1999).

Thinking skills, which include the ability to think at more complex levels, develop gradually, and major changes in worldview, values, or cognitive processing are improbable within the dynamics of a single course (Kitchener & King, 1994; Wolcott & Lynch, 2001). We did not expect dramatic “burning bush” transformative learning experiences in a week – and none were conclusively evidenced. However, at the end of the five-day immersive service experience, sixteen students were clearly confronted with disequilibria in terms of island community structure, capabilities of the elderly, leadership skills, and what it means to serve, and key characteristics of transformative learning emerged in the writings, especially once the students were able to return to their home environments and reflect on the experience.

Learning is a continuous process that neither starts nor stops with the semester schedule. We realized students would enter the course with a range of knowledge and thinking skills and exit the course with varied advancements in their understanding, so rather than set benchmarks

of comprehension or performance as evidence of transformative learning, we looked for evidence of shifting perspectives emerging as inconsistent or contradictory statements in their reflections. By identifying student responses to disequilibria within respective thinking skill level parameters, we were able to locate the students' range of thinking skills – even in brief reflective statements (Wolcott & Lynch, 2001). We found evidence of partial or incremental steps toward transformative understandings in which students began to rethink many of their assumptions and develop or refine emergent perspectives on the elderly, leadership, and meaningful service.

Within the final reflections, there surfaced indicators of learning that were transformative—or potentially transformative—as the beginnings of a life-changing perspective in some students. The data show that these students began the process of thinking critically about what it means to engage in meaningful service, noting in particular their role in relation to others, both within the service experience and outside of the service experience. Some students were able to engage in the process of contextual borders crossing (Kiely, 2005), examining how their current identity, position and power impacted their understanding of the service experience either physically, socially, politically, and/or culturally. This was illustrated in their assignments as many students initially engaged in reflective writing from their position as traditional college students, with easy access to health services, a limited understanding of the process of aging, and a charitable view of service. By the end of the course, some students were able to move beyond a less complex understanding of difficult issues (e.g., aging, environmentalism, rural education, community living), to a perspective that questioned prior assumptions concerning aging, meaningful service, and what constitutes an effective leader.

The course was pedagogically grounded with appropriate literature and supported daily through personal and collective reflective practice, and although reflection and the questions posed certainly played an important role in the understanding or “re-understanding” of a service experience (Eyler & Giles, 1999), this study found that dialogue among peers and with community service partners played a significant role in the learning process. Students in the study noted that it was the dialogues with peers and community members that helped students re-interpret the value of the service they completed, re-think the stereotypes they held of the island and the islanders, and re-build the perceptions they held of themselves and others. This reinforces the idea that the relationship between community partners and students enhances the student learning experience, as positive relationships encourage the process of assumption questioning, issue analysis, and solution generation. Clearly, peers and other valued persons outside the traditional learning environment play a role in establishing a context that supports transformative learning, as indicated in the concept of “process” in Kiely’s (2005) model of transformative learning.

Working side-by-side with community partners, peers, and instructors was also a key element in enhancing the affective dimensions of the transformational learning process (Kiely, 2005). Students often referenced the importance of the strong positive community partner relationship and its impact on service motivation, willingness to suspend judgment about the other, and the issues at hand, as well as the construction of future service activities. The value of the affective component became more evident as the service week progressed; fatigue was frequently mentioned as a common feeling, however the fatigue was mitigated by the feeling of obligation the students felt in the completion of the projects and their commitment to their service partners. It appears that the concept of “connecting” in Kiely’s model seemed to be strongly felt by members of the class.

However, not all students experienced the service-learning experience as a transformative experience; some simply offered summative conclusions that indicated a conclusive rethinking of information or an understanding that had been incubating within the individual prior to the course. Clearly, how students experienced the community service activity varied. Green (2003) and Hill-Jackson and Lewis (2011) contended that service-learning is practiced and experienced differently by those from different social identity groups. Green (2001) indicated that both the context of the service experience and the awareness of the service-learning participants' own social identity in relation to the social identity of those being served impact the outcomes of the service experience.

Using final course grades, Litke (2002) determined that cognitive performance plays a role in how service activities are experienced. Litke found that higher academic performers exhibited an increased ability to reframe complex social issues, and valued the connections and relationships with the individuals they served. These traits were not evident of students in an academically lower performing group. Echoing research indicating that students experience service-learning differently, the data from the current study reinforced the idea that the position from which the student begins the service experience impacts the likelihood of transformation. We found that those who were more likely to experience the service as transformative demonstrated an awareness of possible perspectives other than their own, indicated a readiness to reach new conclusions, and had a system in place for negotiating new and different information. Recognizing the different experiences and outcomes of student participation in the service-learning projects enhanced our comprehension of the learning that occurred.

While we recognize the value of the concepts within Kiely's model that address the context of transformative learning, we believe that transformative learning requires an educator that is highly supportive, patient, and skilled in reflective questioning. Noting that transformative learning often occurs gradually and requires adequate time and space for reflection, both privately and through discussion with others (Mabry, 1998), helping students navigate the possible disequilibrium that often accompanies service-learning experiences through reflective activities is essential. Reflective questions that encourage students to move from lower cognitive ways of thinking to questions that encourage students to explore a more critical analysis of a situation, often by acknowledging various perspectives and positions, increase the likelihood that a more transformative experience might occur.

As indicated earlier, learners often need time to deconstruct past perspectives as they relate to their current identity, position and power, and how this impacts the service experience physically, socially, politically, and culturally. Guided by Mezirow's transformative learning assumptions, Kiely's research on service-learning and transformative learning, and Wolcott and Lynch's thinking skills patterns, this study identified incremental shifts in thinking as evidences of transformative learning in an Honors service-learning course to add to the body of knowledge which clarifies the process of transformational learning within a service-learning context. In addition to well-selected readings, well-designed reflective questions, and meaningful service activities, faculty-student-community dialogue provides affective scaffolding and enhances the likelihood that transformative learning will occur. Re-constructing takes time, often time away from the service that has created the dissonance, in order to re-assemble the new perspectives generated by the experience, the reflective activities and questions, and the course readings. For most participants in this study, it appears that only after returning to rest and relax in familiar "home" environments, and to share their experiences with friends and family, were they able to

more carefully discuss their learning. Given time and distance to reflect upon the experience, many of the students drew new conclusions. We offer that students may need the opportunity to spend “time” with multiple service experiences before they are willing and/or able to address complex social constructs that may conflict with their personal assumptions and beliefs. Future research is needed that continues to explore how service-learning is experienced by various students and what contextual factors are essential for increasing the likelihood that transformative learning will occur.

## References

- Alhadeff-Jones, M. (2012). Transformative learning and the challenges of complexity. In E. Taylor & P. Cranton (Eds.). *The handbook of transformative learning: Theory, research, and practice* (pp. 178-194). San Francisco: Jossey-Bass.
- Astin, A. & Astin, H. (1996). *A social change model of leadership development: Guidebook, version III*. Los Angeles: Higher Education Research Institute, University of California.
- Astin, A., Vogelgesang, L., Ikeda, E., & Yee, J. (2000). *How service learning affects students*. Los Angeles, CA: Higher Education Research Institute, UCLA.
- Boyer, E. (1990). *Scholarship reconsidered: Priorities of the professoriate*. Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching.
- Burns, J. M. (1978). *Leadership*. New York, NY: Harper Collins Publishers.
- Clayton, P., Bringle, R., Senior, B., Huq, J., & Morrison, M. (2010). Differentiating and assessing relationships in service-learning and civic engagement: Exploitative, transactional, or transformational. *Michigan Journal of Community Service Learning*, 17, 5-22.
- Cranton, P. (2006). *Understanding and promoting transformative learning*. San Francisco: Jossey-Bass.
- Cress, C., Collier, P., & Reitenauer, V. & Associates (2013). *Learning through serving: A student guidebook for service-learning across the disciplines, 2nd Ed*. Sterling, VA: Stylus Publishing, LLC.
- Daloz, L. (1999). *Mentor: Guiding the journey of adult learners*. San Francisco: Jossey-Bass.
- Dirkx, J. (2001). The power of feeling: Emotion, imagination, and the construction of meaning in adult learning. In S. Merriam (Ed.). *The new update on adult learning theory* (pp. 63-72). San Francisco: Jossey-Bass.
- Dirkx, J. (2009). Facilitating transformative learning: Engaging emotions in an online context. In J. Mezirow & E. Taylor (Eds.). *Transformative learning in practice: Insights from community, workplace, and higher education* (pp. 57-66). San Francisco: Jossey-Bass.
- Enos, S., & Morton, K. (2003). Developing a theory and practice of campus community partnerships. In B. Jacoby & Associates (Eds.). *Building partnerships for service-learning* (pp. 20-41). San Francisco, CA: Jossey-Bass.
- Eyler, J. & Giles, D. (1999). *Where's the learning in service-learning?* San Francisco, CA: Jossey-Bass.

Hullender, R., Hinck, S., Wood-Nartker, J., Burton, T., and Bowlby, S.

Feinstein, B.C. (2004). Learning and transformation in the context of Hawaiian traditional ecological knowledge. *Adult Education Quarterly*, 54, 105-120.

Green A. E. (2003). Difficult stories: Service-learning, race, class and whiteness. *College Composition and Communication*, 55.

Green A. E. (2001). But you aren't white: Racial perceptions and service-learning. *Michigan Journal of Community Service Learning*, 18-26.

Hatcher, J., Bringle, R., & Muthiah, R. (2004). Designing effective reflection: What matters to service-learning? *Michigan Journal of Community Service Learning*, 4, 22-29.

Hill-Jackson, V., & Lewis, C. W. (2011). White pre-service teachers preparing for diversity in an underserved community. In T. Stewart and N. Webster (Eds.). *Problematizing service-learning: Critical reflections for development and action*. Charlotte, NC: Information Age Publishing.

Kiely, R. (2005). A transformative learning model for service-learning: A longitudinal case study. *Michigan Journal of Community Service-Learning*, 12(1), 5-22.

King, P. & Kitchener, K. (1994). *Developing reflective judgment: Understanding and promoting intellectual growth and critical thinking in adolescents and adults*. San Francisco: Jossey-Bass.

Kitchener, K. & King, P. (1990). The reflective judgment model: Transforming assumptions about knowing. In J. Mezirow (Ed.). *Fostering critical reflection in adulthood* (pp. 141-158). San Francisco: Jossey-Bass.

Litke, R. (2002). Do all students "Get it?": Comparing students reflections to course performance, *Michigan Journal of Community Service Learning*, 27-34.

Mabry, J. B. (1998). Pedagogical variations in service-learning and student outcomes: How time, contact, and reflection matter. *Michigan Journal of Community Service Learning*, 5, 32-47.

Markus, G., Howard, J., & King, D. (1993). Integrating community service and classroom instruction enhances learning: Results from an experiment. *Educational Evaluation and Policy Analysis*, 15, 410-419.

Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco: Jossey-Bass.

Mezirow, J. (2000). *Transformative dimensions of adult learning*. San Francisco: Jossey-Bass.

Mezirow, J. (2009). Transformative learning theory. In J. Mezirow & E. Taylor (Eds.). *Transformative learning in practice: Insights from community, workplace, and higher education* (pp. 18-31). San Francisco: Jossey-Bass.

*Journal of the Scholarship of Teaching and Learning*, Vol. 15, No. 4, August, 2015.  
[Josotl.Indiana.edu](http://Josotl.Indiana.edu)

Hullender, R., Hinck, S., Wood-Nartker, J., Burton, T., and Bowlby, S.

Sinnott, J. (2003). Learning as a humanistic dialogue with reality: New theories that help us teach the whole person. In T. Hagstrom (Ed.). *Adult development in post-industrial society and working life* (pp. 78-152). Stockholm: Stockholm University.

Taylor, E. & Cranton, P. (2012). Transformative learning theory: Seeking a more unified theory. In E. Taylor & P. Cranton (Eds.). *The handbook of transformative learning: theory, research, and practice* (pp. 3-20). San Francisco: Jossey-Bass.

Wolcott, S. & Lynch, C. (2001). Task prompts for different levels in steps to better thinking (online).<http://www.WolcottLynch.com>.

## Appendix

### I. Steps for Better Thinking Skills Patterns (Lynch & Wolcott, 2001)

Less Complex Skill Patterns			More Complex Skill Patterns	
0	1	2	3	4
Proceeds as if goal is to find the single, "correct" answer.	Proceeds as if goal is to stack up evidence and information to support conclusion.	Proceeds as if goal is to establish a detached, balanced view of evidence and information from different points of view.	Proceeds as if goal is to come to a well-rounded conclusion based on objective comparisons of viable alternatives.	Proceeds as if goal is to construct knowledge, to move toward a better conclusion or greater confidence in conclusions as the problem is addressed over time.
	Acknowledges existence of enduring uncertainties and multiple perspectives	Presents coherent and balanced description of a problem and the larger context in which it is found	After thorough exploration, consciously prioritizes issues and information	Prioritizes and addresses limitations effectively
	Reaches own conclusion without relying exclusively on authority	Identifies issues, assumptions, and biases associated with multiple perspectives	Articulates well-founded support for choosing one solution while objectively considering other viable options	Interprets and reinterprets bodies of information systematically and over time as new information becomes available
		Attempts to control own biases	Conclusion based on qualitative evaluation of experts' positions or situational pragmatics	Exhibits a practical, long-term vision
		Logically and qualitatively evaluates evidence from different view points		Spontaneously considers possible ways to generate new evidence about a problem
Fails to realistically perceive uncertainties/ambiguities	Jumps to conclusions	Reluctant to select and defend a single overall solution as most viable	Conclusion doesn't give sufficient attention to long-term, strategic issues	N/A
Recasts open-ended problem to one having a single "correct" answer	Stacks up evidence quantitatively to support own view point and ignores contrary information	Selects a solution but unable to express adequate support for its superiority over	Inadequately identifies and addresses solution limitations and	
Insists that the experts should provide "correct"	Confuses evidence			



answer	and unsupported personal opinion	other solutions	“next steps”
Expresses confusion or futility	Inept at breaking problem down and understanding	Writes overly long paper in attempt to demonstrate all aspects of analysis	
Uses illogical arguments	multiple perspectives	(problems with prioritizing)	
cannot evaluate or appropriately apply evidence	Insists that all opinions are equally valid, but discounts others opinions	Jeopardizes class discussions by getting stuck on issues such as definitions	
Inappropriately cites textbook, “facts,” or definitions			
Concludes based on unexamined authorities’ views or what “feels right”	Views experts as being opinionated or as trying to subject others to their personal beliefs		

---