CRITICAL REFLECTION SEALS THE DEAL: AN EXPERIMENT EXAMINING
THE EFFECTS OF DIFFERENT REFLECTION METHODS ON CIVIC-RELATED
OUTCOMES OF SERVICE-LEARNING

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ABSTRACT

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The present study examined student outcomes across a semester of service-learning participation. The study examined two hypotheses: (1) students engaged in service-learning will have significant changes in community service self-efficacy (an in the related civic action construct) and in endorsement of myths and social stigma towards homelessness; and (2) the pre-to-post semester improvements will be greater for students engaged in structured DEAL Model reflection compared to students engaged in the less structured routine reflection. Undergraduate students (N= 30) were randomly assigned to either the DEAL Model reflection or routine reflection condition. Over the course of the semester, students were required to complete four reflections exercises, which differed in structure based on condition. While there were a number of nonsignificant findings, there was partial support for the hypotheses. Specifically, students’ endorsement of myths and social stigma significantly decreased from pre-to-post assessment. Further results indicated that the DEAL Model reflection group had a significant decrease in endorsement of myths and social stigma, while the routine reflection did not have this
significant decrease. Additionally, the DEAL Model reflection group had a significant increase in civic action from pre-to-post semester assessment. High pre-semester scores on community service self-efficacy measures may have created a ceiling effect that precluded an adequate assessment of pre- to post-semester changes in that construct. However, a retrospective measure of this same construct indicated that students strongly endorsed the notion that participation in the service-learning project substantially contributed to their perceptions of strong community service self-efficacy. The results are interpreted within the context of past theory and research. Recommendations for future research are provided, including future examination of qualitative data (i.e., written reflection assignments), which will be available for research purposes.
Dedicated to my family
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INTRODUCTION

The purpose of this study is to examine the extent to which a structured reflection method in service-learning leads to superior civic-related outcomes (particularly, community service self-efficacy), when compared to a less structured, more typically-employed reflection method. This proposal is organized into the following sections: (a) a brief discussion of the concepts of service-learning and the civic-minded graduate concepts; (b) an overview of research on community service self-efficacy construct; (b) a description of a relatively new structured reflection method known as the DEAL Model; (c) a brief description of the community project that participants of this study (i.e., service-learning students) worked in (i.e, the Behavioral Activation Project); (d) a statement of hypotheses; and (d) a description of the methods and procedures used in the study, as well as a plan for statistical analyses.

Service-Learning and the Civic-Minded Graduate

The right to self-governance is at the heart of democracy; it is the right that protects all other rights. However, a democratic self-governance is not a self-sustaining machine; it must be intentionally protected by its citizens, generation after generation. George W. Bush said:

We are bound by ideals that teach us what it means to be citizens. Every child must be taught these ideals. Every citizen must uphold them . . . . I ask you to be citizens. Citizens, not spectators. Citizens, not subjects. Responsible citizens building communities of service and a nation of character” (2001 Inaugural).
In order to sustain a constitutional democracy, citizens must have the right knowledge, skills, and dispositions to actively participate in a system of self-governance. Consequently, it is imperative that civic engagement be at the forefront of education. Higher education has long recognized its responsibility in facilitating good citizenship by providing civic learning opportunities (Cunningham, 2006). Thus, institutions of higher education increasingly place greater emphasis on programs that nurture the development of civically-minded graduates. Civic-minded graduates are persons that have a tendency or desire to be knowledgeable about, and feel a sense of responsibility and commitment to be involved in the community (Bringle & Steingberg, 2010).

Conceptually, the civic-minded graduate is comprised of seven core domains: (1) academic knowledge and technical skills; (2) knowledge of volunteer opportunities in the nonprofit sector; (3) knowledge of contemporary social issues; (4) listening and communication skills; (5) diversity skills; (6) self-efficacy; and (7) behavioral intentions (Bringle & Steingberg, 2010). Because the pertinence of each element was demonstrated in past research, each was selected for the broader construct of the civic-minded graduate. There are several curricular and co-curricular activities that may contribute to the development of the civic-minded graduate domains, including: service-learning courses, internships, co-ops, and co-curricular services (Bringle & Steingberg, 2010). However, unlike other curricular and co-curricular activities, service-learning is thought to advance the conceptual framework for the civic-minded graduate (Bringle & Steinberg, 2010). Service learning purposefully links community service to academic content (Bringle & Steinberg, 2010). Specifically, service-learning is a credit-based form of experiential
learning intended to foster academic achievement, personal growth and civic engagement (Ash & Clayton, 2004) by having 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” (Bringle & Hatcher, 1995, p. 112)

Service-learning seeks to expand the conventional classroom-based education and strengthen community development. As a result students gain valuable exposure to the intricacies of the community as it relates to: the nonprofit sector and other agencies, to socio-political issues, to the persons served, to types of service opportunities available, and to strategies used to address socio-political issues (Bringle & Steinberg 2010).

Service-learning has been frequently identified as a pedagogy, well-suited to cultivate each of the seven domains of the civic-minded graduate (Bringle & Steinberg, 2010). For instance, in support of the first domain, findings by Eyler and Giles (1999) indicate that the service-learning model is a superior mechanism to traditional pedagogies for attaining academic achievement. Specifically they found bigger gains in critical thinking ability, problem analysis and solution complexity, and knowledge utilization in students engaged in service-learning when compared to students with little to no association between service and curriculum. Other research by Astin and Sax (1998) lends support to the second domain. They found that the service learning pedagogy was related to increases in students’ understanding of issues encountered by the greater community and nation for all areas in which service was provided (Astin & Sax, 1998).

Bringle and Steinberg (2010) found service-learning provides the opportunity for each domain of the civic-minded graduate to flourish. However, a comprehensive review of research on each component of the service-learning model that may contribute to
students’ academic achievement, personal growth and civic engagement is beyond the scope of this research. Rather, this research will focus on one element in the broader concept of the civic-minded graduate; namely, community service self-efficacy research (Bringle et al., 2004).

Community service self-efficacy is the belief that one is capable of making meaningful contributions through community service (Reeb et al., 2010). The concept of self-efficacy originally stems from Bandura’s social-cognitive theory, which holds that “expectations of personal efficacy determine whether coping behavior is initiated, how much effort will be expended, and how long it will be sustained in the face of obstacles and aversive experiences” (Bandura, 1978, p. 191). Based on this principle then, self-efficacy is a predictor of the degree of initiation and persistence of coping behavior and assists in mediating corrective modifications in proficiency of performance and emotion regulation (Bandura, 1978).

Bandura proposed the principle of reciprocal determinism, which illustrates how changes in self-efficacy occur (Bandura, 1978). Reeb et al. (2010) used Bandura’s principle to illustrate how self-efficacy, behavior, and environmental factors influence one another in a bidirectional manner to assist in increasing a student’s efficacious attitude. Specifically, when looking at a student with high community service self-efficacy, that student is more likely to seek out service-learning opportunities than a student with low community service self-efficacy (Reeb et al., 2010). The student with high self-efficacy is more likely to exhibit greater effort in the face of obstacles than the student with low self-efficacy and any favorable consequences from the service would in
turn reinforce the student’s behavior and increase his or her self-efficacy (Reeb et al., 2010).

Among the different components of the civic-minded graduate construct, this study focuses primarily on self-efficacy for the following reasons. First, based on years of research by Bandura (1977, 1997) on the self-efficacy construct, it may be expected that self-efficacy plays an important role in mediating changes in at least some of the other components of the civic-minded graduate construct. In addition, as explained later, there are reasons to believe that the form of reflection examined in this study may have a particular impact on changes in community service self-efficacy.

Bandura (1997) hypothesized that success would raise self-efficacy; failure would lower self-efficacy; and enhanced self-efficacy would generalize. Based on this hypothesis, Reeb et al. (2010) concluded that dependent upon the degree of success or failure, a student’s community service-self efficacy “could increase, decrease, or remain stable during a semester of service-learning.”

**Community Service Self-Efficacy Research**

Reeb, Katsuyama, Sammon, and Yoder (1998) developed the Community Service Self-Efficacy Scale (CSSES) to fill a void in the literature (1998; Reeb, Folger, Langsner, Ryan, and Crouse, 2010). Most other service-learning measures focus on domains such as social responsibility, motives, and values, whereas the CSSES focuses on whether the person was confident in their performance (self-efficacy) (Reeb et al., 2010). CSSES assesses whether participants believe they are capable of making meaningful contributions to the community through service (Reeb et al., 1998). Bringle et al. (2004) described the CSSES as having “good theoretical rationale, [with] promising
psychometric characteristics, and potential utility as a moderator variable, mediating variable, and outcome variable.” Reeb et al. (2010) reviews 10 years of research that establishes the psychometric properties of the CSSES. A brief review of the reliability for the CSSES is provided followed by a review of validity.

Reliability is reviewed as it relates to internal consistency and temporal consistency (test-retest reliability) in order to understand the degree to which the CSSES produces consistent and stable results. First, internal consistency is used to evaluate the extent to which different test items that examine the same construct produce similar results (Kirk and Miller, 1986). Reeb et al., (2010) reported strong internal consistency with coefficient alpha well over .90 for the Community Service Self-Efficacy Scale (CSSES), Community Service Self-Efficacy Scale- Sensitive to Change (CSSES-SC), and Community Service Self-Efficacy Scale- Retrospective Version (CSSES-RV). Second, temporal consistency measures the stability over time by administering the same test over a period of time to a group of individuals (Kirk and Miller, 1986). Reeb et al., (2010) reported statistically significant stability ($r = .68, p = .001$).

Validity is reviewed as it relates to factor structure, sensitivity to intervention effects, discriminant validity, convergent validity, and criterion-related validity to demonstrate how well the CSSES measures what it is intended to measure. First, factor structure is used for data reduction purposes to better accommodate the measure (Kirk and Miller, 1986). Reeb et al. (2010) reported a factor analysis of CSSES items and items of the Social Responsibility Inventory and found that the CSSES items loaded heavily on one unique factor with item loadings ranging from .67 to .81. This supported the CSSES as a unidimensional measure (Reeb et al., 2010).
Second, sensitivity to intervention effects is used as evidence for construct validity (Reeb et al., 2010). Construct validity is the idea that scores on a measure change in the direction of the intervention (Reeb et al., 2010). Reeb et al., (2010) reported CSSES was not able to pick up on increases for students with higher CSSES score at pre-test, but was able to find increases for students that did not have high scores at pre-test. Two alternative forms of the CSSES were developed to address concerns with the construct validity (Reeb et al., 2010). The first alternative form was developed to assess students’ perceptions of a course’s contribution to their community service self-efficacy (Reeb et al., 2010). It was observed that students that engaged in a service-learning opportunity sometimes had extremely high CSSES scores at pretest, creating a ceiling effect; that is, a difficulty in detecting changes in self-efficacy for students over the course of the semester (Reeb et al., 2010). The CSSES-SC was created to be more sensitive to change and also address the issue with ceiling effects (Reeb et al., 2010). This version tried to assist in overly high scores at pre-test by having students compare themselves to “an individual with 10 years of community service experience” (Reeb et al., 2010). The second form, CSSES-RV was established to assist with the ceiling effect issue or when pre-test is not possible (Reeb et al., 2010). Both the CSSES-RV and the CSSES-SC were found to be highly correlated with the original CSSES (Reeb et al., 2010).

Third, discriminant validity tests whether concepts that are hypothesized to be unrelated or inversely related (based on theory or research) are, in fact, unrelated or inversely related as expected (Kirk and Miller, 1986). Reeb et al.,(2010)looked to social desirability and alienation as evidence for discriminant validity. As reviewed by Reeb et
al., (2010), the correlation between the Community Service Self-Efficacy Scale (CSSES) and measures of social desirability – the Marlowe-Crowne Social Desirability Scale (Crowne and Marlowe 1964) (r=.09) and the Balanced Inventory of Desirable Responding (BIDR) were found to be negligible. Additionally, when looking to alienation, it was reported that community service self-efficacy was inversely related to alienation (Reeb et al., 2010).

Fourth, convergent validity measures the extent to which measures of the same construct (or similar constructs) that should be related, are in fact related (Kirk and Miller, 1986). Reeb et al., (2010) demonstrated convergent validity by showing that improvements of an individual’s self-efficacy for community service generalizes to other domains such as generalized self-efficacy, behavioral intentions for community service, hope, self-esteem, generativity, growth motivation, and empathy (Reeb et al., 2010).

Finally, criterion-related validity measures how well a variable predicts an outcome (Kirk and Miller, 1986). Reeb et al., (2010) provided support for criterion-related validity such that the CSSES was higher among students in a service-learning course than students not in a service-learning course (Reeb et al., 2010).

In summary, the CSSES appears to be a reliable and valid measure of the construct of community service self-efficacy. In addition to the original CSSES version, two other versions are available in order to (a) control for ceiling effects resulting from high pre-test CSSES scores and (b) provide a way to assess the impact of a service-learning course (or other experiential endeavor) when it is only possible to do a post-test.
DEAL Model Reflection

Service-learning is more than the action of service; it is the integration of service and reflection. Reflection is a necessary, “transformative link between the action of serving and the ideas and understanding of learning” (Eyler, Giles, & Schmiede, 1996). Thus, reflection serves to integrate the concept of service and the concept of learning into a mutually reinforcing relationship (Eyleret al., 1996). Ultimately, the goal of reflection in service-learning is to transform students’ thinking and perspectives by challenging students to explore and re-evaluate their assumptions and beliefs based on the service experience and the academic course material (Ash & Clayton, 2009).

Effectively designing reflection to achieve desired learning outcomes requires consideration of the context in which learning is to occur (Ash & Clayton, 2009). Recognizing the constraints and opportunities that the context provides will help determine the reflection mechanism such as essay, online chat, posters, or discussion (Ash & Clayton, 2009). Regardless of the specific mechanism, all reflection should link the experience to learning, be guided, clarify values, and have the opportunity for feedback (Ash & Clayton, 2009).

The role that reflection plays in service-learning is often misunderstood, if not seen as altogether unnecessary (Ash & Clayton, 2009). Unstructured and informal reflection methods used in service-learning courses are weak forms that miss the meaning and potential of reflection (Ash & Clayton, 2009). These methods may ask students to relate a concept from a course to their experience (Ash & Clayton, 2009). When reflection is structured in this way, learning may be “haphazard, accidental, and superficial.” (Stanton, p. 185). In order to maximize the benefits of reflection, the
prompts must be intentionally designed so that the reflection “generates, deepens, and documents learning” (Ash & Clayton, 2009).

The DEAL Reflection Model (described below) is a flexible model that facilitates this type of critical reflection and assessment (Ash & Clayton, 2009). This model uses Bloom’s *Taxonomy of Educational Objectives* (1956) and Paul and Elder’s *Critical Thinking: Tools for Taking Charge of Your Professional and Personal Life* (2002), as a means of structuring learning objectives to guide and evaluate critical reflections (Ash & Clayton, 2009). Bloom’s *Taxonomy of Educational Objectives* (1956) refers to a classification of various learning objectives that helps guide the development of specific learning objectives. There are three domains: cognitive, affective, and psychomotor (Bloom, 1956). Within each of the domains there is a hierarchy comprised of six levels where each level is more complex than the previous (Bloom, 1956). Ash and Clayton (2009) used this classification tool to illustrate how to properly design reflection that targets learning objectives.

The DEAL model involves three steps: (1) detailed, objective Description of experiences; (2) Examination of those experiences as they relate to academic achievement, personal growth, and/or civic learning; and (3) Articulation of Learning, including objectives for action that may enhance future experiences and learning opportunities (Ash & Clayton, 2009). Each stage of the DEAL Reflection Model requires prompts tailored to meet the goals and objectives of the course (Ash & Clayton, 2009). Some goals might relate to issues of social justice, economic and political systems, and community problem-solving (Ash & Clayton, 2009). Thus, students in an undergraduate program may focus research efforts on relationships between community
partners and their influence on community outcomes. Regardless of the specific goals and objectives, the DEAL Reflection Model encourages students to generate their own learning which challenges the more traditional reflection models that simply ask students to express what they have learned only after the learning has already occurred (Ash & Clayton, 2009). It is for this reason that we expect students that engage in DEAL Reflection will have a greater increase in learning objectives (self-efficacy) than students engaged in a more traditional reflection. In a book to be published by the American Psychological Association in 2015 (Service Learning in Psychology: Enhancing Undergraduate Education for the Public Good), Bringle, Reeb, Brown, and Ruiz (in press) incorporate the DEAL Model in sample exercises meant to illustrate the concept of reflection.

There is reason to believe that DEAL Model would augment students’ community service self-efficacy during a semester of service-learning. According to Bandura, there are four sources of experiences that influence self-efficacy: “(a) enactive mastery experiences (past successes and failures in similar situations); (b) vicarious experiences (past observations of how others cope in the situation); (c) verbal persuasion (encouragement or discouragement from others); and (d) anticipatory arousal (emotional or physiological)” (Reeb, et al., 2010; Bandura, 1997). According to Bandura (1997, p.80), enactive mastery experiences influence self-efficacy the most, and this is “because they provide the most authentic evidence of whether one can muster whatever it takes to succeed . . .” Community service-learning programs can provide opportunities for mastery experiences (Cone, 2009; Reeb et al., 2010), which would be expected to enhance one’s sense of self-efficacy for community service. In addition, during service-
learning experiences, other events occur that may greatly influence the other sources of information for self-efficacy judgements. As a student observes a peer coping successfully in the community agency, this may influence vicarious experience source of information. Supervision may influence the verbal persuasion source of information. Reflection exercises may influence both the verbal persuasion and vicarious experience informational sources, and reflection (as well as supervision) may function to make one’s mastery experiences during service more salient.

**Behavioral Activation Summary**

The service-learning students who participated in the present study engaged in a particular type of service-learning – service-learning research (namely, participatory community action research) (see Bringle et al., in press). More specifically, the students assisted in the implementation of a Behavioral Activation Project in a homeless shelter. The behavioral activation program was a pre-existing project at the St. Vincent de Paul Gettysburg Gateway Shelter for Men, and was implemented by Dr. Roger Reeb in the fall of 2013, along with his community research partner (Mr. David Bohardt, Executive Director of St. Vincent de Paul, Dayton, Ohio), and his graduate students at the time (Christine Farmer, Zach Glendening, and Rebecca Kinsey). Behavioral Activation, is an intervention that stems from operant conditioning. It involves providing individuals with situations that provoke productive activities which serves to reinforce positive behavior. In other words it is a “therapeutic process that emphasizes structured attempts at engendering increases in overt behaviors that are likely to bring [the person] in contact with reinforcing environmental contingencies and produce corresponding improvements.
in thoughts, mood, and overall quality of life” (Hopko, Lejuez, Ruggiero, and Eifert, 2003, p. 700).

The goal of behavioral activation is to improve mood, positive thinking, and quality of life. The behavioral activities used at the shelter fit into three categories: (a) activities to enhance empowerment/self-sufficiency (e.g., GED preparation, computer training); (b) activities to enhance coping (e.g., stress management, risk prevention); and (c) activities to enhance mood, quality of life, and social skills (e.g., music, art, cookouts, recreational events). Undergraduate students work alongside graduate students, faculty, and community partners to execute the project. Students work at the shelter about two hours bi-weekly and engage in regular reflection exercises. Preliminary results indicate that the Behavioral Activation Project is beneficial to men at the shelter, though a discussion of these findings is beyond the scope of this particular research (Reeb et al., 2014(a); Reeb et al., 2014(b); Reeb et al., 2014(c)).

With regard to student outcomes related to this study, one study (Reeb, Snow, Susdorf, Thomas, & Lynn, 2013) examined pre-to-post changes in service-learning students who engaged in homeless shelter work in a previous semester leading up to the implementation of Behavioral Activation Project. Using a quasi-experimental design, this study compared students in a class with this service-learning requirement to a class of student without the service-learning requirement. Relative to non-service-learning students, the service-learning students showed pre-to-post semester (a) improvements in community service self-efficacy and (b) decreases in endorsement of myths and stereotypes related to homelessness. [For a comprehensive review of research on social stigma toward homelessness, the reader is referred to Snow and Reeb (2013).] While the
primary focus of the current study is on the community service self-efficacy construct, it is important to note that one major reflection exercise that student engage in focuses social stigma toward homelessness. Therefore, a measure of this variable will also be incorporated, with the secondary objective of determining if (a) the finding above (Reeb et al., 2013) is replicated and (b) the finding is more pronounced when the DEAL Model is employed in the reflection exercise.

**Rationale for Current Study**

Service-learning studies show an increase in leadership skills, critical thinking ability, feelings of responsibility and commitment to community work in addition to community service self-efficacy across a variety of higher education settings (Astin, Vogelgesang, Ikeda, and Yee 2000; Stewart, 2008; Stewart & Alrutz, 2014; Weiler, 2013). Ideally, service-learning will service the interest of both the student and the community, which will theoretically promote internalization of prosocial values, attitudes, and behaviors (Clary, Snyder, & Stukas, 1998).

Most agree that reflection is a key component of service-learning that must connect the service to academic content and civic related outcomes such as self-efficacy (Bringle and Hatcher, 1999; Hunter and Brisbin, 2000; Kendall, 1990). Sheckley and Keeton (1997) note that the learning experience must keep in mind individual differences in outcomes due to the nature of the work, the students’ previous experiences, and the level of engagement in reflection. Specifically, Sheckley and Keeton (1997) argue that changes in attitudes and beliefs are connected to the depth of processing. Furthermore, as indicated above, Bandura’s four sources of information, particularly persuasion and
sources of past success, help to understand why DEAL Model reflection may lead to greater gains in self-efficacy over the course of a service-learning semester.

This study investigated reflection as it pertains to the mutually reinforcing relationship between service and learning by looking at the civic-minded graduate domain outcomes as a function of reflection; specifically the self-efficacy element of the civic-minded graduate construct. The hypotheses are as follows:

1. Across conditions, there will be significant pre-to-post semester changes in (a) community service self-efficacy (and in the related construct of civic action) and (b) endorsement of myths and social stigma for students engaged in service-learning in the Behavioral Activation Research Project at the Shelter.

2. The pre-to-post semester improvements in (a) community service self-efficacy (and in the related construct of civic action) as well as (b) endorsement of myths and social stigma toward homelessness will be greater for students who engage in structured (DEAL Model) reflection, relative to those who engage in the less structured (more typical) reflection method. In other words, a statistically significant interaction between group (DEAL Model reflection vs. routine reflection) and time of measurement (pre- vs.post-semester).

Thus, a significant group (structured vs. unstructured reflection) by time (pre- vs. post-semester) interaction is hypothesized. This study is unique because, to our knowledge, it is the only study of reflection methods that employed an experimental (random assignment) design.
METHOD

Participants

Participants included 30 (22 females, 8 males) college students from the University of Dayton. The participants were recruited from an undergraduate independent study, service-learning, psychology course. Participation was voluntary and no monetary compensation was awarded. Moreover, course credit was awarded irrespective of participating in the current study. Each participant was randomly assigned to one of two conditions. There were 15 participants in condition one, and 15 participants in condition two. Among the participants, 25 were Caucasian, 3 African American, 1 Latino, and 1 Asian/Pacific Islander. Participants ranged from 18-23 years (M=20.60, SD=.77). Among the participants, 3.33% were sophomores, 50% were juniors, and 46.67% were seniors. When participants were asked about the highest level of education completed by his or her mother, 10% reported high school diploma, 26.67% some college, 33.33% Bachelor’s degree, and 30% graduate/professional training. When participants were asked about the highest level of education completed by his or her father, 10% reported high school diploma, 10% some college, 33.33% Bachelor’s degree, and 40% graduate/professional training. Participants were also asked about where he or she grew up, 63.33% reported having grown up in a city and 36.67% suburb. Finally, participants were asked about their past service experience, and 90% reported
past service experience, with 63.33% having past service experience with homeless populations.

**Procedure**

This study was approved by the Research Review and Ethics Committee (Department of Psychology). This study examines the effects of service-learning and reflection on civic-related attitudes. As a part of course work for an Independent Study, students voluntarily participated in service-learning by assisting with the behavioral activation project at the St. Vincent de Paul Homeless Shelter for Men from September, 2014 to December, 2014. Students from this course were asked to participate in our study on a voluntary basis (Appendix A, B). After completing informed consent (Appendix A), students were randomly assigned to the following reflection conditions: (a) reflection based on the DEAL (*Describe, Evaluate, and Articulate Learning*) Reflection Method (Ash & Clayton, 2009), which uses specialized prompts that are believed to facilitate processing and learning (Appendix J); or (b) a reflection using “regular” reflection prompts (Appendix K) (*Asks to generally reflect on experience as it relates to a concept*).

Then, students were asked to complete a pre-semester assessment of civic action, community service self-efficacy, and attitudes toward homelessness. Specifically, for those who agreed to participate in the study, the students were asked to complete the following as pre-assessment measures: (a) a demographic information form (Appendix C); (b) a form collecting information about past service experience (Appendix D); (c) two versions of the Community Service Self-Efficacy Scale (CSSES; Reeb, Folger, Langsner, Ryan, & Crouse, 2010; Appendix E & G) – the original CSSES and a second CSSES
version shown to be more sensitive to change (controls for “ceiling effects”); (d) the Civic Action Scale (CAS; Moely, Mercer, Ilustre, Miron, & McFarland, 2002; Appendix H); and (e) the Attitudes Toward Homelessness Inventory (ATHI—adapted version; Kingree & Daves, 1997; Appendix I).

At the end of the semester students were asked to complete post-semester assessment. Participants completed both of the aforementioned versions of the CSSES, a Retrospective Version of the CSSES, the CAS, and the ATHI (Appendix E-I). The demographic form and the form collecting data about past service were created for this study, whereas the versions of the CSSES, the CAS, and the ATHI (adapted version) are in the public domain and demonstrated psychometric properties are presented in the papers cited.

As noted earlier, participants were randomly assigned to the following reflection conditions: (a) reflection based on the DEAL Reflection Method (Ash & Clayton, 2009), or (b) a reflection using “regular” reflection prompts. For example, at the very beginning of the semester, the students in the “regular” reflection condition were asked to describe their initial impressions of their service at the shelter; in contrast, students in the DEAL Model condition participated in a more structured reflection. In service-learning, the number, type (e.g., written or group discussion), and topic of reflection exercises during a semester are typically not predetermined; instead, the incorporation of reflection is a dynamic process, meaning that the number, type, and topic of reflection exercises depend on how the semester progresses (e.g., how soon in the semester the students actually become involved in service), events that occur at the service site (i.e., homeless shelter), changes in service plans that occur due to emerging needs at the agency, issues that come
up in earlier reflections, and so on. Here, participants wrote four reflection papers and engaged in five group reflection discussions over the course of the semester.

**Measures**

At the beginning of the semester, participants were asked to complete a demographic questionnaire and a past service work questionnaire. While the primary focus of the study is on community service self-efficacy, measures of some other constructs were also employed, so that we could determine if changes in these constructs covary with changes in community service self-efficacy, which has relevance to the validity of the Community Service Self-Efficacy Scale. Participants were also asked to complete the Community Service Self-Efficacy Scale, Community Service Self-Efficacy Scale–Sensitive to Change, Civic Action Scale, and the Attitudes toward Homelessness Inventory (adapted version). At the end of the semester, participants were asked to complete the aforementioned scales in addition to the Community Service Self-Efficacy Scale-Retrospective Version. Correlations among these variables at pre-semester and post-semester are illustrated in Table 1.

**Demographic Questionnaire.** The demographic questionnaire (Appendix C) was a pre-assessment measure only. It asked participants about their gender, age, ethnicity, year in school, major, their parent’s educational background, whether the participant grew up in a city, suburb, small town (population under 50,000), or rural area outside a Metropolitan region. Finally, the questionnaire asked whether the participants have worked with homeless persons and whether the participants have a history of volunteering. This information was collected to determine if the participants’ demographic information is associated with responses to the other questionnaires.
Past Service Work Questionnaire. The past service work questionnaire (Appendix D) was a pre-assessment measure only. It asked participants to list jobs that involved community work, internships in the community, past volunteer work, or service-learning work. Specifically, participants were asked to provide the name and location of the agency, a description of the work involved, the approximate start and end date. This information was collected to determine if the participants’ past service experience had an impact on responses to the other questionnaires.

Community Service Self Efficacy Scale. The 10-item Community Service Self Efficacy Scale (CSSES; Appendix E) assesses whether participants believe they are capable of making meaningful contributions to the community through service (Reeb, Folger, Langsner & Crouse, 2010). Reeb et al., (2010) reported strong internal validity with alphas over .90 (Reeb, Katsuyama, & Sammon, 1998), and a test-retest reliability of .62 (Reeb, 2006) over the course of a semester for students not engaged in service-learning. The scale was given for both pre- and post-assessment purposes. Participants responded to all items using a 10 point Likert Scale; e.g., “If I choose to participate in community service in the future, I will be able to make a meaningful contribution.” A response of 1 indicates that the participant is quite uncertain, and a response of 10 indicates that the participant is certain he or she endorses the item. A higher score indicates that the participant is in more agreement with the affirmations. In this study, the alpha for CSSES was .89 for pre-semester and .94 for post-semester.

Community Service Self Efficacy Scale- Sensitive to Change. The 10-item Community Service Self Efficacy Scale- Sensitive to Change (CSSES-SC; Appendix G) is a variation of the CSSES scale (Reeb, et al., 2010). It was developed to eliminate
ceiling effects that may preclude an examination of change. It accomplishes this by asking participants to compare themselves to “an individual with 10 years of community service experience” as they rate each item. Reeb et al., (2010), reported the internal validity with an alpha well over .90. The CSSES-SC was given for both pre- and post-assessment purposes. Participants responded to all items using a 10 point Likert Scale; e.g., “Compared to an individual with 10 years of community service experience, how meaningful of a contribution will you be able to make through community service?” A response of 1 indicates that the participant’s endorsement of the item is less than that of the experienced participant, and a response of 10 indicates that the participant’s endorsement is greater than that of the experienced participant. A higher score indicates that the participant is in more agreement with the items. In this study, the alpha for CSSES-SC was .92 for pre-semester and .95 for post-semester.

**Community Service Self Efficacy Scale- Retrospective Version.** The 10-item Community Service Self Efficacy Scale- Retrospective Version (CSSES-RV; Appendix F) assesses participants’ “perceptions of a course’s contribution to their community service self-efficacy” (Reeb, et al., 2010). Reeb et al. reported the internal validity with an alpha well over .90. (Reeb, et al., 1998). The CSSES-RV was given as a post-assessment measure only. Participants responded to all items using a 10 point Likert Scale; e.g., “This course increased or strengthened my confidence that, in the future, I will be able to make a meaningful contribution to the community through service.” A response of 1 indicates that the participant is quite uncertain, and a response of 10 indicates that the participant is certain he or she endorses the item. A higher score
indicates that the participant is in more agreement with the affirmations. In this study, the alpha for CSSES-RV was .96 for post-semester.

**Civic Action Scale.** The eight-item Civic Action Scale (CAS; Appendix H) assess participants’ intentions to be involved in community service or action in the future. Molely, et al. (2002) reported an internal validity alpha of .86. The CAS was given as a pre- and post-assessment measure. Participants responded to all eight items using a five point Likert Scale; e.g., “I plan to do some volunteer work.” A response of 1 indicates complete disagreement, and a response of 5 indicates complete agreement. A higher score indicates that the participant is in more agreement with the item. In this study, the alpha for CAS was .75 for pre-semester and .74 for post-semester.

**Attitudes Toward Homelessness Inventory (adapted version).** The 18-item Attitudes toward Homelessness Inventory (adapted version) (ATHI; Appendix I) assess participants’ “attitudes about the personal and societal causes of homelessness, solutions for homelessness, and willingness to affiliate with homeless people”(Kingree & Daves, 1997). The ATHI (adapted version) was given as a pre- and post-assessment measure. Kingree and Daves (1997) reported an alpha of .71 for the 11-item ATHI scale. There is reason to believe the alpha for the adapted 16-item ATHI scale will not differ from the 11-item ATHI alpha. Participants responded to all 18 items using a six point Likert Scale; e.g., “Homeless people had parents who took little interest in them as children.” A response of 1 indicates the participant strongly agrees, and a response of 6 indicates that the participant strongly disagrees. A higher score indicates that the participant strongly disagrees with the item. In this study, the alpha for ATHI was .72 for pre-semester and .46 for post-semester.
RESULTS

Overview of Statistical Analysis Approach

A 2 X 2 ANOVA was performed, with one between-groups factor (reflection condition) and one within-subjects factor (pre- to post-semester assessment). The main effect of the within-subjects factor were examined to determine the validity of the first hypothesis. Regarding the second hypothesis, the interaction between group (structured vs. unstructured reflection) and time (pre- vs. post-semester) was examined. Means and standard deviations for each student outcome variable (dependent variable) as a function of reflection condition and time (pre- vs. post-semester) are illustrated in Table 2.

Hypothesis 1

Hypothesis 1 was as follows: Across conditions, there will be significant pre-to-post semester changes in (a) community service self-efficacy (and in the related construct of civic action) and (b) endorsement of myths and social stigma for students engaged in service-learning in the Behavioral Activation Research Project at the Shelter. As delineated below, this hypothesis required an examination of main effect for time (pre-vs. post-semester) for each dependent variable in the 2 X 2 ANOVA.

Community Service Self-Efficacy. For the CSSES, examination of the main effect for time indicated that, across conditions, the difference between pre-semester ($M=8.85; SD=.87$) and post-semester ($M=8.70; SD=1.21$) was nonsignificant, $F(1, 28)=.64$, $p=.43$. Likewise, for the CSSES-SC, examination of the main effect for time indicated
that, across conditions, the difference between pre-semester ($M= 7.41; SD= 1.47$) and post-semester ($M= 7.18; SD= 1.71$) was nonsignificant, $F(1, 28)= .55, p= .46$. For a related construct – Civic Action (CAS), the main effect for time indicated that, across conditions, the difference between pre-semester ($M= 4.28; SD= .41$) and post-semester ($M= 4.38; SD= .40$) was also nonsignificant, $F(1, 28)= 2.98, p= .10$.

The CSSES-RV was administered at post-test only. Across groups, the mean CSSES-RV score was $8.48$ with a standard deviation of $1.54$. Items of the CSSES-RV range from 1 (“uncertain”) to 10 (“certain”), and so this means that ratings of 5 or 6 represent moderate perceptions of self-efficacy. With 6 (high end of “moderate”) is used as a test value, single-sample t-test reveals that the average rating (8.48) is significantly greater than the moderate level, $t(29)= 8.82, p= .001$. For sake of exploring the strength of this finding, analyses revealed that the result continued to be statistically significant with a test value of 7, $t(29) = 5.27, p = .001$, but it was no longer significant with a test value of 8, $t(29) = 1.72, p = .10$.

**Attitudes Toward Homelessness.** For the ATHI, the main effect for time indicated that, across conditions, the difference between pre-semester ($M= 3.83; SD= .55$) and post-semester ($M= 4.12; SD= .35$) was significant and in the hypothesized direction, $F(1, 28)= 8.63, p< .01$

**Hypothesis 2**

Hypothesis 2 was as follows: Pre-to-post semester improvements in (a) community service self-efficacy (and in the related construct of civic action) as well as (b) endorsement of myths and social stigma toward homelessness will be greater for students who engage in structured (DEAL Model) reflection, relative to those who
engage in less structured (more typical) reflection method. Thus, there was a need to examine the interaction effect between group (DEAL Model reflection vs. routine reflection) and time of measurement (pre- vs. post-semester) for each dependent variable, as delineated below (see Table 2).

Community Service Self-Efficacy. For the CSSES, the interaction effect between group (DEAL Model reflection vs. routine reflection) and time of measurement (pre- vs. post-semester) was nonsignificant, $F(1,28)= 2.99, p=.10$. Given the a priori hypothesis of group differences, follow-up t-tests were computed to better understand the pattern of findings (also see Table 2). At pre-test, an independent-samples t-test revealed that the group difference was nonsignificant, $t(28)= .88, p=.39$. At post-test, an independent-samples t-test revealed that the group difference was nonsignificant, $t(28)= .76, p=.45$. For the standard reflection condition, a paired-samples t-test revealed that the pre-to-post semester change was nonsignificant, $t(14)= -.86, p=.40$. Finally, for the DEAL Model reflection condition, a paired-samples t-test revealed that the pre-to-post semester change was nonsignificant, $t(14)= 1.50, p=.16$.

For the CSSE-SC, the interaction effect between group (DEAL Model reflection vs. routine reflection) and time of measurement (pre- vs. post-semester) was nonsignificant, $F(1, 28)= .21, p=.65$. Given the a priori hypothesis of group differences, follow-up t-tests were computed to better understand the pattern of findings (also see Table 2). At pre-test, an independent-samples t-test revealed that the group difference was nonsignificant, $t(28)= -.50, p=.62$. At post-test, an independent-samples t-test revealed that the group difference was nonsignificant, $t(28)= .01, p=.99$. For the standard reflection condition, a paired-samples t-test revealed that the pre-to-post
semester change was nonsignificant, \( t(15) = .17, p = .87 \). Finally, for the DEAL Model reflection condition, a paired-samples t-test revealed that the pre-to-post semester change was nonsignificant, \( t(15) = 1.11, p = .29 \).

The CSSES-RV (the retrospective version of the CSSES), which was administered at post-semester only, participants are asked to rate the extent to which service-learning experiences contributed to improvements on items of the CSSES. On the CSSES-RV, the difference between the routine reflection group (\( M = 8.71, SD = 1.01 \)) and the DEAL Model reflection group (\( M = 8.26, SD = 1.95 \)) was nonsignificant, \( t(28) = .79, p = .43 \).

For the measure of a similar construct of Civic Action (CAS), the interaction effect between group (DEAL Model reflection vs. routine reflection) and time of measurement (pre- vs. post-semester) was nonsignificant, \( F(1, 28) = 1.27, p = .27 \). Given the a priori hypothesis of group differences, follow-up t-tests were computed to better understand the pattern of findings (also see Table 21). At pre-test, an independent-samples t-test revealed that the group difference was nonsignificant, \( t(28) = .84, p = .41 \). At post-test, an independent-samples t-test revealed that the group difference was nonsignificant, \( t(28) = 0.00, p = 1.00 \). For the standard reflection condition, a paired-samples t-test revealed that the pre-to-post semester change was nonsignificant, \( t(14) = -.34, p = .74 \). Finally, for the DEAL Model reflection condition, a paired-samples t-test revealed that the pre-to-post semester change was significant, \( t(14) = -2.94, p = .01 \), and the direction of the mean difference was in the expected direction (see Table 2). To better understand this finding, exploratory item analyses were conducted to determine group differences on specific CAS items (see Table 3).
**Attitudes Toward Homelessness.** For the ATHI, the interaction effect between group (DEAL Model reflection vs. routine reflection) and time of measurement (pre- vs. post-semester) was nonsignificant, $F(1, 28)=.77, p=.39$. Given the a priori hypothesis of group differences, follow-up t-tests were computed to better understand the pattern of findings (also see Table 2). At pre-test, an independent-samples t-test revealed that the group difference was nonsignificant, $t(28)=-.02, p=.98$. At post-test, an independent-samples t-test revealed that the group difference was nonsignificant, $t(28)=-1.40, p=.17$.

For the standard reflection condition, a paired-samples t-test revealed that the pre-to-post semester change was nonsignificant, $t(14)=-1.53, p=.15$. Finally, for the DEAL Model reflection condition, a paired-samples t-test revealed that the pre-to-post semester change was significant, $t(15)=-2.59, p=.02$, and the direction of the mean difference was in the expected direction (see Table 2). To better understand this finding, exploratory item analyses were conducted to determine group differences on specific ATHI items (see Table 4).
DISCUSSION

Reflection is an essential component of service-learning. In John Dewey’s (1938) *Experience and Education*, he argued that people do not learn from experience, rather people learn from reflecting on experience. The DEAL Model for reflection provides a mechanism that facilitates learning outcomes through its three step process for critical reflection (Ash & Clayton, 2009). As previously mentioned, unlike the DEAL Model, unstructured reflections run the risk of reinforcing stereotypes, not generalizing correctly, and overlooking significant occurrences of the service experience (Ash & Clayton, 2009). Service-learning experiences put students in close contact with people and community partners that students may have tenuous attitudes or beliefs (Ash & Clayton, 2004). Therefore, if these belief systems remain unchallenged, the experience may reinforce the unfounded attitudes (Ash & Clayton, 2004). In weak reflections, the learning outcomes are likely vague and superficial (Ash & Clayton, 2004). In practice, some service-learning projects do not incorporate reflection in a significant way, and when it is incorporated, it is often unstructured in nature (e.g., instructions to read an article and apply it to experiences) (Ash & Clayton, 2009).

The DEAL Model’s structured approach avoids the problems associated with informal reflection methods by utilizing Paul and Elder’s critical thinking standards. These universal standards include clarity, accuracy, relevance, significance, depth,
integration, and fairness (Paul & Elder, 2007). The DEAL Model also uses Bloom’s *Taxonomy of Educational Objectives* to assist in creating clear learning objectives that facilitates the design of reflections (Ash & Clayton, 2009). This form of critical reflection is becoming commonly used in service-learning arena (Bringle, Reeb, Brown, and Ruiz, in press). Previous research lends support to the DEAL Model as a means for increasing learning objectives, such as self-efficacy. For instance, Bandura held that enactive mastery experiences influence self-efficacy the most due to their authentic nature (Bandura, 1997). As explained above in the introduction, if experience alone can influence self-efficacy, then there is reason to believe that adding a critical reflection component would further support an increase in self-efficacy. Critical reflection allows for deeper understanding of the service experience and promotes student engagement with their own learning, which supports the belief that critical reflection would increase self-efficacy (Ash & Clayton, 2009). However, to our knowledge, there no past experiments in which service-learning students are randomly assigned to different reflection conditions in order to determine whether the DEAL Model does in fact support such an increase in self-efficacy.

Although the primary focus of this study was community service self-efficacy, a hypothesis regarding changes in social stigma over the course of the semester (and a corresponding measure) was included because (a) one primary reflection exercise focused on social stigma and (b) a past study in this program of research showed that service-learning students working in homeless shelters showed decreases in endorsement of homelessness myths (Reeb & Snow, 2013). This study investigated two hypotheses regarding reflection as it relates to student outcomes. Specifically, the first hypothesis
explored whether students engaged in service-learning would have a significant pre-to-post semester change, across conditions (standard reflection and DEAL reflection), in (a) community service self-efficacy (and the related construct of civic action) and (b) endorsement of myths and social stigma. The second hypothesis examined whether the pre-to-post semester improvements were greater for students engaged in the structured DEAL Mode reflection relative to those engaged in the less structure, more typical reflection.

The discussion of the results are organized according to the main constructs examined as student outcomes; namely, community service self-efficacy (and the related construct of civic action) and endorsement of myths and social stigma toward homelessness. The results for each construct will be reiterated and interpreted in light of past research or theory.

Community Service Self-Efficacy Construct

The CSSES-RV revealed that, across groups, student ratings noted that service-learning contributed to self-efficacy, and this finding was significant even when the overall group mean was compared to a test value of 7 on this 1-to-10 point scale. Further, the CSSES-RV findings illustrated that students in the regular reflection group and the DEAL reflection group did not differ in their belief that the service-learning experience augmented self-efficacy.

However, change in community service self-efficacy (as measured pre- and post-semester by the CSSES and the CSSES-SC) did not reveal changes in the construct over the semester. There are several potential explanations for why changes over the course of the semester were not found. One potential issue, as discussed above, relates to ceiling
effects. Reeb et al., (2010) noted that students with high CSSES scores at pre-semester, may create a ceiling effect that does not allow for the post-test to adequately represent an increase in self-efficacy. In other words, “service-learning students maintained high CSSES scores from pre-to-post semester, but their CSSES scores did not significantly increase over the course of the semester” (Reeb et al., 2010, p. 463). The CSSES-SC was developed to address the issues related to ceiling effects. Some studies have found that this alternative form is able to identify pre-to-post semester changes as well as identify different levels of change in self-efficacy over the course of the semester between a service-learning class and a control class (Reeb et al., 2008), but the CSSES-SC was not sensitive to change in this study, perhaps for reasons explained directly below.

A second potential problem relates to the pool of participants. The participants were college students at the University of Dayton in Ohio. The University of Dayton prides itself on its distinctive vision of educating the whole person and creating a community of servant leaders by “linking learning and scholarship with leadership and service” (University of Dayton, 2015). Despite this fact, the CSSES has been sensitive to change in with this population in some studies (reviewed in Reeb et al., 2010). However, in addition to the community service orientation among students at UD, and an additional issue is that the students in both conditions had very high pre-semester scores on measures of community service self-efficacy (e.g., 8.71 and 8.89 on the CSSES). These incredibly high pre-test scores on the community service self-efficacy measures at pre-test are not surprising given the fact that the vast majority of students in both reflection conditions had extensive experience in service prior to this research project. Specifically, 86.7% of the routine reflection group and 93.3% of the DEAL reflection group reported a
history of volunteering, which makes up 90% of the students overall. Furthermore, 73.3% of the routine reflection group and 53.3% of the DEAL reflection group reported a history of working with homeless persons, which makes up 63.3% of the students overall. Additionally, 26.7% of the routine reflection group and 26.7% of the DEAL reflection group had previously engaged in service-learning with same Behavioral Activation Research Project at the Gateway Shelter for Men, which makes up 26.7% of the students overall. Analyses excluding cases based on past experience with service, past experience with homeless persons, and past experience with the Behavioral Activation Project were conducted, but the results remained roughly the same with these different analyses. In the future, it would be important to conduct a study that included a large sample, with subsamples of participants with different types of service background, so that these kinds of specific analyses could be done with adequate statistical power.

The construct of civic action and community service self-efficacy significantly overlap at both pre-test ($r = .42, p = .02$) and post-test ($r = .48, p = .01$). However, the series of Community Service Self-Efficacy scales and the CAS are not synonymous. The Community Service Self-Efficacy scales primarily focus on how confident one is in making meaningful differences through community service, whereas civic action focuses primarily on one’s intentions to engage in future community service without reference to one’s confidence in making contributions in such service. Over the course of the semester, students in the DEAL Model condition had an increased tendency for civic action. These results suggest that the project made individuals more likely to engage in service in the future if they participated in the DEAL Model reflection exercises. The students in the DEAL reflection group engaged in deeper reflections, which may have
strengthened the conceptual framework of the civic-minded graduate as previously discussed. This likely in turn increased the likelihood that students would engage in service in the future. Further investigation into the qualitative data (written reflections for both groups) may reveal additional information regarding changes in students on both community service self-efficacy and civic action. The qualitative data is made available for future examination.

**Attitudes Toward Homelessness Construct**

The ATHI results showed that, across groups, there was a significant decrease in endorsement of myths and stereotypes related to homelessness from pre-to-post semester scores. Further findings indicated that the DEAL Model reflection group had a significant pre-to-post semester decrease in attitudes, while the routine reflection group did not. These findings are consistent with and analogous to Reeb, et al.’s findings. They found relative to non-service-learning students, service-learning students showed similar pre-to-post semester decreases (Reeb, et al., 2013).

Snow and Reeb’s (2013) discussion of research on anti-stigma project helps to understand why the DEAL Model may be potent in addressing myths and social stigma. One anti-stigma approach is the contact strategy. Contact seeks to reduce social stigma by encouraging social interaction with the stigmatized group (Snow & Reeb, 2013). Another anti-stigma approach emphasizes education, which tries to reduce stigma by challenging stereotypes and myths with facts and figures (Snow & Reeb, 2013). Snow and Reeb (2013) suggest that the most effective strategy for reducing social stigma “combines contact and education components.” (p. 127-28). The service-learning course in this study utilized this strategy combination. Contact was achieved by having the
students interact with the male homeless population. Education was achieved by having reflection exercises tailored to course objectives; in particular the first reflection activity required the students read a reflection on the Snow and Reeb (2013) article, *Social Stigma and Homelessness*.

Although contact and education were present for both reflection groups (DEAL and routine), the only group to show significant pre-to-post semester decreases in stigma was the DEAL Model reflection group. One potential explanation for why the DEAL reflection group decreased endorsements of myths and stereotypes related to homelessness is that the DEAL reflection group was engaged in reflection exercises more narrowly tailored to the learning objectives. The structure of the DEAL reflection exercise may have prompted a deeper, more thoughtful reflection (and discussion) about social stigma. Qualitative examination of written reflections for the two conditions may help in examining the validity of this explanation, and this is why the qualitative data (i.e., written reflections) will be available for future evaluation.
SUMMARY AND CONCLUSIONS

President John F. Kennedy challenged the nation to “ask not what your country can do for you; ask what you can do for your country” (Inaugural, 1961). This challenge addresses a primary goal of educators, which is to prepare graduates for active participants in society. Service-learning is a powerful mechanism that educators can use to mold civically-minded graduates. Although service-learning has been theorized about for generations, it has recently received unprecedented attention at the federal level, from budget requests to educational initiatives. Notwithstanding the governmental support for service-learning programs continued research is necessary to justify expenditure of financial resources and time. While several studies have found merit in act component of experiential learning, few, if any, studies have focused on the reflection component of service-learning. This study sought to explore the impact that reflection has on student outcomes. The most encouraging results indicated significant changes for the DEAL Model reflection group from pre-to-post, in the hypothesized direction, on the CAS and the ATHI. While the other findings may not have demonstrated significance, high pre-test scores on the CSSES and CSSES-SC made it difficult for post-test scores to measure any potential increase (perhaps due to a ceiling effect for measures of this construct). Furthermore, the very high scores on CSSES-RV shows strong endorsement that student
Although the other findings were not significant, several recommendations for future research may elevate the pitfalls of this study. Although the current study may suggest that service-learning does not benefit all students, there are several limitations such as ceiling effects and students’ prior experience, that make quantifying the benefits challenging. However, future research may be able to overcome these challenges. Future research may want to assess students’ community self-efficacy and attitudes towards homelessness throughout the semester as opposed to just pre-to-post. This is more likely to capture the ebb and flow of experiential learning. Additionally, researchers may want to perform a second post-test a month after the first post-test to detect any potential latency effects or extinction. Future research should also try and make a greater distinction between the DEAL reflection exercises and routine reflection exercises, which may facilitate more meaningful between group differences. Finally, in this study, students who generally had a strong service background obtained higher scores at pre-test, even on the CSSES-SC. Future research should be conducted with a much larger sample size, which would allow specific analyses to determine if participants with different levels or types of service background change in different ways over the course of the semester. Also, using a mixed-methodology that looks at the quantitative (CSSES, CSSES-SC, CSSES-RV, CAS, ATHI) and qualitative (written reflection exercises) measures may better illustrate the pre-to-post semester changes.
Table 1.
Bivariate Correlations for Dependent Variables (Student Outcomes) across Time (Pre-to-Post Semester)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Time</th>
<th>CSSES</th>
<th>CSSES-SC</th>
<th>CSSES-RV</th>
<th>CAS</th>
<th>ATHI</th>
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<td>[.97]</td>
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<td></td>
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<td>[ .03]</td>
<td>[ .00]</td>
<td>[ .01]</td>
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<td>[ .01]</td>
<td>[ .00]</td>
<td>[ .01]</td>
<td>[.03]</td>
</tr>
<tr>
<td>CAS</td>
<td>Pre-test</td>
<td>.42</td>
<td>.44</td>
<td>NA</td>
<td>1.00</td>
<td>- .12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[ .02]</td>
<td>[ .01]</td>
<td></td>
<td>[ .53]</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>.39</td>
<td>.30</td>
<td>.40</td>
<td>.71</td>
<td>- .49</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[ .11]</td>
<td>[ .03]</td>
<td>[ .00]</td>
<td>[.03]</td>
</tr>
<tr>
<td>ATHI</td>
<td>Pre-test</td>
<td>- .01</td>
<td>.04</td>
<td>NA</td>
<td>- .12</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[ .97]</td>
<td>[ .83]</td>
<td>[ .53]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>- .15</td>
<td>.21</td>
<td>- .21</td>
<td>- .19</td>
<td>.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[ .43]</td>
<td>[ .26]</td>
<td>[ .26]</td>
<td>[.31]</td>
</tr>
</tbody>
</table>

*Note.* Correlation coefficients for participants (N= 30) are shown above with *p*-values in brackets. Community Service Self-Efficacy Scale (CSSES); Community Service Self-Efficacy Scale-Sensitive to Change (CSSES-SC); Community Service Self-Efficacy Scale-Retrospective Version (CSSES-RV); Civic Action Scale (CAS); Attitudes towards Homelessness Inventory (ATHI).
Table 2.
Means and Standard Deviations for Dependent Variables (Student Outcomes) as a Function of Reflection Condition and Time (Pre-to-Post Semester)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Time Point</th>
<th>Standard Reflection</th>
<th>DEAL Reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>CSSES</td>
<td>Pre-test</td>
<td>8.71</td>
<td>.99</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>8.87</td>
<td>.97</td>
</tr>
<tr>
<td>CSSES-SC</td>
<td>Pre-test</td>
<td>7.27</td>
<td>1.47</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>7.19</td>
<td>1.42</td>
</tr>
<tr>
<td>CAS</td>
<td>Pre-test</td>
<td>4.34</td>
<td>.35</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>4.38</td>
<td>.41</td>
</tr>
<tr>
<td>ATHI</td>
<td>Pre-test</td>
<td>3.83</td>
<td>.55</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>4.03</td>
<td>.37</td>
</tr>
</tbody>
</table>

*Note.* Standard Reflection $N=15$, Deal Reflection $N=15$. Community Service Self-Efficacy Scale (CSSES); Community Service Self-Efficacy Scale-Sensitive to Change (CSSES-SC); Civic Action Scale (CAS); Attitudes towards Homelessness Inventory (ATHI).
### Table 3.
**Group Differences for Civic Action Outcomes as a Function of Reflection Condition and Time (Pre-to-Post Semester)**

<table>
<thead>
<tr>
<th>Item</th>
<th>Time</th>
<th>Standard Reflection</th>
<th>DEAL Reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>I plan to do some volunteer work.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>4.80</td>
<td>.41</td>
<td>4.73</td>
</tr>
<tr>
<td>Post-test</td>
<td>4.73</td>
<td>.46</td>
<td>4.73</td>
</tr>
<tr>
<td>I plan to become involved in a community action program.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>3.93</td>
<td>.80</td>
<td>3.87</td>
</tr>
<tr>
<td>Post-test</td>
<td>3.80</td>
<td>.68</td>
<td>4.13</td>
</tr>
<tr>
<td>I plan to participate in a community action program.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>3.87</td>
<td>.74</td>
<td>3.60</td>
</tr>
<tr>
<td>Post-test</td>
<td>3.87</td>
<td>.74</td>
<td>4.27</td>
</tr>
<tr>
<td>I plan to become an active member of my community.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>4.40</td>
<td>.99</td>
<td>4.13</td>
</tr>
<tr>
<td>Post-test</td>
<td>4.53</td>
<td>.92</td>
<td>4.27</td>
</tr>
<tr>
<td>In the future, I plan to participate in a community service organization.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>4.60</td>
<td>.63</td>
<td>4.60</td>
</tr>
<tr>
<td>Post-test</td>
<td>4.60</td>
<td>.51</td>
<td>4.47</td>
</tr>
<tr>
<td>I plan to help others who are in difficulty.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>4.87</td>
<td>.35</td>
<td>4.67</td>
</tr>
<tr>
<td>Post-test</td>
<td>4.87</td>
<td>.35</td>
<td>4.80</td>
</tr>
<tr>
<td>I am committed to making a positive difference.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>4.87</td>
<td>.35</td>
<td>4.87</td>
</tr>
<tr>
<td>Post-test</td>
<td>4.93</td>
<td>.26</td>
<td>4.87</td>
</tr>
</tbody>
</table>
I plan to become involved in programs to help clean up the environment.

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th></th>
<th>Post-test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.40</td>
<td>.63</td>
<td>3.27</td>
<td>.80</td>
</tr>
<tr>
<td></td>
<td>3.67</td>
<td>1.05</td>
<td>3.47</td>
<td>.99</td>
</tr>
</tbody>
</table>

Table 4.
Group Differences for Attitudes toward Homelessness as a Function of Reflection Condition and Time (Pre-to-Post Semester)

<table>
<thead>
<tr>
<th>Item</th>
<th>Standard Reflection</th>
<th>DEAL Reflection</th>
<th>t(28)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time</strong></td>
<td><strong>M</strong></td>
<td><strong>SD</strong></td>
<td><strong>M</strong></td>
<td><strong>SD</strong></td>
</tr>
<tr>
<td>Homeless people had parents who took little interest in them as children.</td>
<td>Pre-test</td>
<td>4.47</td>
<td>1.36</td>
<td>3.80</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>4.60</td>
<td>1.24</td>
<td>4.47</td>
</tr>
<tr>
<td>Recent government cutbacks in housing assistance for the poor may have made the homeless problem in this country worse.</td>
<td>Pre-test</td>
<td>2.73</td>
<td>.80</td>
<td>3.07</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>2.40</td>
<td>.83</td>
<td>2.73</td>
</tr>
<tr>
<td>The low minimum wage in this country virtually guarantees a large homeless population.</td>
<td>Pre-test</td>
<td>3.20</td>
<td>1.74</td>
<td>3.00</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>2.93</td>
<td>1.49</td>
<td>3.53</td>
</tr>
<tr>
<td>I would feel comfortable eating a meal with a homeless person.</td>
<td>Pre-test</td>
<td>2.33</td>
<td>1.11</td>
<td>2.20</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>1.67</td>
<td>.62</td>
<td>2.00</td>
</tr>
<tr>
<td>Rehabilitation programs for homeless people are too expensive to operate.</td>
<td>Pre-test</td>
<td>4.33</td>
<td>.72</td>
<td>4.80</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>4.87</td>
<td>.74</td>
<td>4.60</td>
</tr>
<tr>
<td>There is little that can be done for people in homeless shelters except</td>
<td></td>
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</tr>
</tbody>
</table>
to see that they are comfortable and well fed.

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Most circumstances of homelessness in adults can be traced to their emotional experiences in childhood.

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th>Post-test</th>
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</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Recent government cutbacks in welfare have contributed substantially to the homeless problem in this country.

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

I feel uneasy when I meet homeless people.

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

A homeless person cannot really be expected to adopt a normal lifestyle.

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th>Post-test</th>
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<tbody>
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</table>

Most homeless persons are substance abusers.

<table>
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<th>Pre-test</th>
<th>Post-test</th>
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</thead>
<tbody>
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</table>

Substance abuse is the primary cause of homelessness.

<table>
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<tr>
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<th>Pre-test</th>
<th>Post-test</th>
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<tbody>
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</table>

The experience of homelessness often leads
or exacerbates substance abuse.

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homeless people should be forced into shelters.</td>
<td>2.53</td>
<td>2.27</td>
</tr>
<tr>
<td></td>
<td>1.25</td>
<td>1.28</td>
</tr>
<tr>
<td></td>
<td>2.93</td>
<td>2.87</td>
</tr>
<tr>
<td></td>
<td>1.03</td>
<td>1.25</td>
</tr>
<tr>
<td></td>
<td>-.96</td>
<td>-1.30</td>
</tr>
<tr>
<td></td>
<td>.35</td>
<td>.20</td>
</tr>
<tr>
<td>Homeless people should be forced into treatment or rehabilitation.</td>
<td>4.60</td>
<td>4.80</td>
</tr>
<tr>
<td></td>
<td>1.24</td>
<td>.94</td>
</tr>
<tr>
<td></td>
<td>4.67</td>
<td>4.93</td>
</tr>
<tr>
<td></td>
<td>1.05</td>
<td>.70</td>
</tr>
<tr>
<td></td>
<td>-.16</td>
<td>-.44</td>
</tr>
<tr>
<td></td>
<td>.88</td>
<td>.66</td>
</tr>
<tr>
<td></td>
<td>4.53</td>
<td>4.87</td>
</tr>
<tr>
<td></td>
<td>1.25</td>
<td>1.25</td>
</tr>
<tr>
<td></td>
<td>4.40</td>
<td>4.73</td>
</tr>
<tr>
<td></td>
<td>1.35</td>
<td>1.03</td>
</tr>
<tr>
<td></td>
<td>.28</td>
<td>.32</td>
</tr>
<tr>
<td></td>
<td>.78</td>
<td>.75</td>
</tr>
</tbody>
</table>

*Note.* Standard Reflection N= 15, Deal Reflection N= 15.
REFERENCES


APPENDIX A

Informed Consent to Participate in a Research Project

Project Title: Reflection and Service-Learning: Continuous study

Investigator(s): Christine Farmer and Roger N. Reeb PhD (faculty sponsor)

Description of Study: You are being asked to complete a brief questionnaire at the beginning and end of the semester as well as written reflections and oral discussion groups to assess your perceptions regarding the homeless shelter and service-learning. Demographic information is used.

Adverse Effects and Risks: We are merely collecting information regarding the perceptions of students as it relates to service-learning and community action, and no adverse effects or risks for this study are anticipated.

Duration of Study: The study will take approximately one to complete. The pre- and post-assessments will take approximately 20 minutes each. The reflections will take approximately 1 hour each. The discussion groups will meet periodically throughout the semester, and discussions will take approximately 30 minutes.

Confidentiality of Data: Your name will be kept separate from the data. Both your name and the data will be kept in a locked filing cabinet. Only the investigators named above will have access to the locked filing cabinet. Your name will not be revealed in any document resulting from this study.

Contact Person: Students may contact Christine Farmer, 865-384-2035, farmercl@udayton.edu or Roger N. Reeb, PhD St. Joseph’s Hall (room 306), ), Department of Psychology, University of Dayton, 937-229-2395, reeb1@udayton.edu. If you have questions about your rights as a research participant you may also contact the chair of the Research Review and Ethics Committee, Lee Dixon, PhD in SJ 310, (937) 229-2160, lee.dixon@udayton.edu.
The University of Dayton supports researchers' academic freedom to study topics of their choice. The topic and/or content of each study are those of the principal investigator(s) and do not necessarily represent the mission or positions of the University of Dayton.
APPENDIX B

Debriefing Form

Reflection and Service-Learning: Continuous Study

Objective:
The objective of this study is to investigate the influence of service-learning. We hope to find that service-learning produces positive personal, academic, and professional outcomes for students. Additionally, we hope to find that the level of reflection will influence the aforementioned outcomes.

Hypothesis:
Past research suggests that service-learning produces positive outcomes for students and that the level of reflection may encourage a more meaningful service-learning experience. We predict that individuals who participate in service-learning will have an increase in community self-action, propensity to engage in civil action, and a more positive attitude toward homeless persons. We also predict that the increases may be in part influenced by the level and depth of reflection. That is, the deeper the reflection, the greater the impact of the service-learning experience.

Your Contribution:
Your completing these questionnaires, reflections, and discussion groups is essential in allowing us to study the influence of service-learning.

Benefits:
Participating in the study will help researchers and universities have a better understanding as to the potential benefits from a service-learning course. This course also permits real-world experience that is unique from most University courses.

Assurance of Privacy:
We are studying service-learning outcomes and are not evaluating you personally in any way. Your responses will be kept completely confidential and your responses will only be identified by a participant number in the data set with other participant numbers. Your name will not be revealed in any document resulting from this study.

Please note:
• We ask you to kindly refrain from discussing this study with others in order to help us avoid biasing future participants.
If you have any questions please do not hesitate to contact any of the individuals listed on this page.

For further information about this area of Warning Label research, you may consult the references cited on this page.

**Contact Information:**
Students may contact Christine Farmer, 865-384-2035, farmercl@udayton.edu or Roger N. Reeb, PhD St. Joseph’s Hall (room 306), Department of Psychology, University of Dayton, 937-229-2395, reeb1@udayton.edu if you have questions or problems after the study. If you have questions about your rights as a research participant you may also contact the chair of the Research Review and Ethics Committee, Lee Dixon, PhD in SJ 310, (937) 229-2160, lee.dixon@udayton.edu.

Thank you for your participation. I will update your research credit on the online system.

**Disclaimer:**

The University of Dayton supports researchers' academic freedom to study topics of their choice. The topic and/or content of each study are those of the principal investigator(s) and do not necessarily represent the mission or positions of the University of Dayton.

**References:**


APPENDIX C

Demographic Questionnaire

Please take a few moments to complete the following demographic information.

1. Age: ______________

2. Gender: Male Female

3. Ethnicity (check all that apply): Caucasian African-American Latino/a Asian/Pacific Islander Native American
   Other: Please describe: ______________

4. Year in School:
   Freshman Sophomore Junior Senior

5. Major: __________________

6. Highest Level of Education Completed by Mother:
   High School Diploma Some College Associate’s Degree
   Bachelor’s Degree Graduate/Professional training

7. Highest Level of Education Completed by Father:
   High School Diploma Some College Associate’s Degree
   Bachelor’s Degree Graduate/Professional training

8. Where did you grow up?
   City Suburb Small Town (population under 50,000)
Rural area outside a Metropolitan Region

9. Have you worked with homeless persons prior to this class? Yes
   No

10. If yes to question 9, what did you do? And when?

11. Do you have a history of volunteering? Yes No

12. If yes to question 11, what have you done? And when?
APPENDIX D

Past Service Work Questionnaire

Please list and briefly describe past volunteer work, jobs that involved community work, internships in the community, or service-learning work.

POSITION 1:

Exact Agency:

Brief Description of Work (and hours per week):

Approximate Begin/End Dates:

Circle One:

volunteer work    jobs that involved community work    internships in the community, service-learning work    Other (specify): ______________________

POSITION 2:

Exact Agency Name:

Brief Description of Work:
Approximate Begin/End Dates:

Circle One:

volunteer work jobs that involved community work internships in the community,
service-learning work Other (specify): ____________________

**POSITION 3:**

Exact Agency:

Brief Description of Work (and hours per week):

Approximate Begin/End Dates:

Circle One:

volunteer work jobs that involved community work internships in the community,
service-learning work Other (specify): ____________________

**POSITION 4:**

Exact Agency Name:

Brief Description of Work:

Approximate Begin/End Dates:
Circle One:

volunteer work   jobs that involved community work   internships in the community,

service-learning work   Other (specify): ________________________

**POSITION 5:**

Exact Agency:

Brief Description of Work (and hours per week):

Approximate Begin/End Dates:

Circle One:

volunteer work   jobs that involved community work   internships in the community,

service-learning work   Other (specify): ________________________

**POSITION 6:**

Exact Agency Name:

Brief Description of Work:

Approximate Begin/End Dates:

Circle One:
volunteer work jobs that involved community work internships in the community, service-learning work Other (specify): ________________________
Please rate the items on the following scale:

1  2  3  4  5  6  7  8  9  10
certain

quite
uncertain

1. If I choose to participate in community service in the future, I will be able to make a meaningful contribution.

1  2  3  4  5  6  7  8  9  10

2. In the future, I will be able to find community service opportunities which are relevant to my interests and abilities.

1  2  3  4  5  6  7  8  9  10

3. I am confident that, through community service, I can help in promoting social justice.

1  2  3  4  5  6  7  8  9  10

4. I am confident that, through community service, I can make a difference in my community.

1  2  3  4  5  6  7  8  9  10

5. I am confident that I can help individuals in need by participating in community service activities.

1  2  3  4  5  6  7  8  9  10
6. I am confident that, in future community service activities, I will be able to interact with relevant professionals in ways that are meaningful and effective.

7. I am confident that, through community service, I can help in promoting equal opportunity for citizens.

8. Through community service, I can apply my knowledge in ways that solve “real-life” problems.

9. By participating in community service, I can help people to help themselves.

10. I am confident that I will participate in community service activities in the future.
APPENDIX F

Community Service Self-Efficacy Scale- Retrospective Version

Please rate the items on the following scale:

1 2 3 4 5 6 7 8 9 10
quite certain
uncertain

This course increased or strengthened my confidence that, in the future, I will be able to

1. Make meaningful contributions to the community through service.

1 2 3 4 5 6 7 8 9 10

2. Find community service opportunities which are relevant to my interests and abilities.

1 2 3 4 5 6 7 8 9 10

3. Help in promoting social justice through community service.

1 2 3 4 5 6 7 8 9 10

4. Make a difference in the community through community service.

1 2 3 4 5 6 7 8 9 10

5. Help individuals in need by participating in community service activities.

1 2 3 4 5 6 7 8 9 10
6. Interact with relevant community professionals in ways that are meaningful and effective.

1 2 3 4 5 6 7 8 9 10

7. Help in promoting equal opportunity for citizens through my community service activities.

1 2 3 4 5 6 7 8 9 10

8. Apply my knowledge to community service in ways that help to solve “real-life” problems.

1 2 3 4 5 6 7 8 9 10

9. Help people to help themselves as I engage in community service.

1 2 3 4 5 6 7 8 9 10

10. Commit myself to community service.

1 2 3 4 5 6 7 8 9 10
APPENDIX G

Community Service Self-Efficacy Scale- Sensitive to Change

Please rate the items on the following scale:

1  2  3  4  5  6  7  8  9  10

Less than
the
experienced
participant

Greater
than the
experienced
participant

1. Compared to an individual with 10 years of community service experience, how meaningful of a contribution will you be able to make through community service?

2. Compared to an individual with 10 years of community service experience, how confident are you about finding community service opportunities that are relevant to your interests and abilities?

3. Compared to an individual with 10 years of community service experience, how confident are you that you can help in promoting social justice through community service?

4. Compared to an individual with 10 years of community service experience, how confident are you that you can make a difference in your community through service?

5. Compared to an individual with 10 years of community service experience, how confident are you that you can help individuals in need by participating in community service activities?
6. Compared to an individual with 10 years of community service experience, how confident are you that you will be able to interact with relevant professionals in a meaningful and effective ways in future community service?

7. Compared to an individual with 10 years of community service experience, how confident are you that, through your own community service, you can help in promoting equal opportunity for citizens?

8. Compared to an individual with 10 years of community service experience, how confident are you that, through community service, you can apply knowledge in ways that solve “real-life” problems?

9. Compared to an individual with 10 years of community service experience, how confident are you that, by participating in community service, you can help people to help themselves?

10. Compared to an individual with 10 years of community service experience, how confident are you that you will participate in community service in the future?
APPENDIX H

Civic Action Scale

Please rate the items on the following scale:

1= disagree completely  5= agree completely

_____ I plan to do some volunteer work.

_____ I plan to become involved in a community action program.

_____ I plan to participate in a community action program.

_____ I plan to be become an active member of my community.

_____ In future, I plan to participate in a community service organization.

_____ I plan to help others who are in difficulty.

_____ I am committed to making a positive difference.

_____ I plan to become involved in programs to help clean up the environment.
APPENDIX I

Attitudes toward Homelessness Inventory (adapted version)

Please rate the items on the following scale:


1. Homeless people had parents who took little interest in them as children.

2. Recent government cutbacks in housing assistance for the poor may have made the homeless problem in this country worse.

3. The low minimum wage in this country virtually guarantees a large homeless population.

4. I would feel comfortable eating a meal with a homeless person.

5. Rehabilitation programs for homeless people are too expensive to operate.

6. There is little that can be done for people in homeless shelters except to see that they are comfortable and well fed.

7. Most circumstances of homelessness in adults can be traced to their emotional experiences in childhood.
8. Recent government cutbacks in welfare have contributed substantially to the homeless problem in this country.

9. I feel uneasy when I meet homeless people.

10. A homeless person cannot really be expected to adopt a normal lifestyle.

11. Most homeless persons are substance abusers.

12. Substance abuse is the primary cause of homelessness.

13. The experience of homelessness often leads or exacerbates substance abuse.

14. Homeless people should be forced into shelters.

15. Homeless people should be forced into treatment or rehabilitation.
Reflection is the critical thread that holds service learning together. Periodically students are encouraged to complete a structured reflection based on the very effective DEAL Model for Critical Reflection (Ash & Clayton, 2007). Many universities are utilizing the Deal Model for creating reflections during the service learning experience because there is evidence that this type of student reflection does increase academic achievement and civic responsibility.

**Assignment #1**

**Directions:** Read the stigma article and then write a thoughtful reflection in 1-2 double spaced pages (times new roman, 12 pt. font, normal margins) using the prompt below. Please write on and label each section in accordance with the structure set out below. This assignment is due at the beginning of your next discussion group. (October 15th or 16th at 8:30 pm). Please provide a hardcopy and also email your reflection to reebassistants@gmail.com prior to your discussion group.

DEAL Process Model for Reflection: Each time you reflect on the field experience, go through the sequence:

(a) **Describe**
   
   DESCRIBE your first field experience. (What did you do? Where did you do it? Who did you do it with (guests and students)? When did you do it?)

(b) **Examine**
   
   EXAMINE your reaction/response/feelings to the service experience, in accordance with the stigma article. How can you or others in the community use what you learned about the article? Are there any challenges associated with doing so?

(c) **Articulate Learning**
   
   ARTICULATE LEARNING - Connect what happened in the field to what you learned from the article. Take a look at this 4-part structure for articulating learning. (a) What did I learn? (b) How did I learn it? (c) Why does it matter? (d) What will I do in the future, in light of it?
Assignment #2
Directions: Read the quote below and then write a thoughtful reflection in 1-2 double spaced pages (times new roman, 12 pt. font, normal margins) using the prompt below. Please write on and label each section in accordance with the structure set out below. This assignment is due at the beginning of your next discussion group. (October 29th or 30th at 8:00 pm). Please provide a hardcopy and also email your reflection to reebassistants@gmail.com & rreeb1@udayton.edu prior to your discussion group.

“One who serves takes care to make sure that other people’s highest priority needs are being served. The best test, and difficult to administer, is: do those served grow as persons; do they while being served, become healthier, wiser, freer, more autonomous, more likely themselves to become servants? And, what is the effect on the least privileged in society; will they benefit, or, at least, will they not be further deprived?” ~Robert Greenleaf

DEAL Process Model for Reflection: Each time you reflect on the field experience, go through the sequence:

(a) Describe
DESCRIBE your field experience as it relates to the quote. (Were there power differentials? Was there reciprocity of services or a mutually beneficial relationship between student and guest?)

(b) Examine
EXAMINE your reaction/response/feelings to the service experience, in accordance with the quote. (How can service learning help break down any power differentials or perceptions of privilege? Are there any challenges associated with doing so?)

(c) Articulate Learning
ARTICULATE LEARNING - Connect what happened in the field to the quote. Take a look at this 4-part structure for articulating learning. (a) What did I learn? (b) How did I learn it? (c) Why does it matter? (d) What will I do in the future, in light of it?

Assignment #3
Directions: Write a thoughtful reflection in however many double spaced pages necessary (times new roman, 12 pt. font, normal margins) using the prompt below. Please write on and label each section in accordance with the structure set out below. This assignment is due at the beginning of your next discussion group. (Nov. 12th or 13th at 8:30 pm). Please provide a hardcopy and also email your reflection to reebassistants@gmail.com and rreeb1@udayton.edu prior to your discussion group.

Plan an activity that could be implemented at the Shelter. Plan it from beginning to end. Make sure the activity is safe and realistic (no football, no pumpkin carving, no mental dart throwing, etc.). Plan an activity that you are willing to actually execute.
Keep in mind that you budget is $0.00. You are welcome to use any of our supplies that we already have or can bring some. Also make sure and outline the role that each student/graduate student will play during your activity. Think about potential problems. Outline your expectations for how the activity will go.

DEAL Process Model for Reflection: Each time you reflect on the field experience, go through the sequence:

(a) Describe
DESCRIBE the activity. What do you plan to do? What materials do you need? What will the students/graduate students need to help with during the activity? If you plan to ask reflection questions what will they be? Is there any set up or clean up involved? How long will the activity take?

(b) Examine
EXAMINE your activity. Are there any challenges associated with doing this activity? What are your expectations for this activity? How do you plan on getting people engaged?

(c) Articulate Learning
ARTICULATE LEARNING – What do you hope the guests will get out of this activity? Why did you pick this activity? Will students benefit from this activity? How will this activity tie into the goals of service learning?

Assignment # 4
Directions: Write a thoughtful reflection in however many double spaced pages necessary (times new roman, 12 pt. font, normal margins) using the prompt below. Please write on and label each section in accordance with the structure set out below. This assignment is due at the beginning of your next discussion group. (December 3rd or 4th 8:30 pm). Please email your reflection to reebassistants@gmail.com and rreeb1@udayton.edu no later than 5:00 pm December 15th.

DEAL Process Model for Reflection: Each time you reflect on the field experience, go through the sequence:

Reflect on that activity you planned and implemented. Use the questions below to help guide your reflection.

(a) Describe
DESCRIBE the activity you implemented at the shelter. Who did what? How long did it take? Did you end up alter your activity from what you initially planned?

(b) Examine
EXAMINE your activity. Were there any challenges in implementing your activity? Would you do anything differently? Do you think your activity was beneficial to the guests?

(c) Articulate Learning

ARTICULATE LEARNING – What did you learn (about yourself, about others, about the agency, etc.) from planning and implementing this activity? What did you hope the guests will get out of this activity? Did that happen?
APPENDIX K

Standard Reflection

Reflection is the critical thread that holds service learning together. Reflection improves basic academic skills and promotes a deeper understanding of course subject matter and its relations to the non-academic world; it improves higher level thinking and problem solving, and students’ ability to learn from experience. Reflection promotes personal development by enhancing students’ self-awareness, their sense of community, and their sense of their own capacities. Reflection is not the same as description although description is a good first step in reflection.

Assignment #1
Directions: Read the article on social stigma and relate it to your experience at the shelter in 1-2 double spaced pages (times new roman, 12 pt. font, normal margins). This assignment is due at the beginning of your next discussion group. (October 15th or 16th at 8:00 or 8:30 pm). Please provide a hardcopy and also email your reflection to reebassistants@gmail.com prior to your discussion group.

Assignment #2
Reflection is the critical thread that holds service learning together. Reflection improves basic academic skills and promotes a deeper understanding of course subject matter and its relations to the non-academic world; it improves higher level thinking and problem solving, and students’ ability to learn from experience. Reflection promotes personal development by enhancing students’ self-awareness, their sense of community, and their sense of their own capacities. Reflection is not the same as description although description is a good first step in reflection.

Directions: Read the quote below and relate it to your experience at the shelter in 1-2 double spaced pages (times new roman, 12 pt. font, normal margins). This assignment is due at the beginning of your next discussion group. (October 29th or 30th at 8:00 or 8:30 pm). Please provide a hardcopy and also email your reflection to reebassistants@gmail.com & rreeb1@udayton.edu prior to your discussion group.

“One who serves takes care to make sure that other people’s highest priority needs are being served. The best test, and difficult to administer, is: do those served grow as persons; do they while being served, become healthier, wiser, freer, more autonomous,
more likely themselves to become servants? And, what is the effect on the least 
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sense of their own capacities. Reflection is not the same as description although 
description is a good first step in reflection.

**Directions:** Write a thoughtful reflection in however many double spaced pages necessary 
times new roman, 12 pt. font, normal margins) using the prompt below. This 
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8:00 pm). Please provide a hardcopy and also email your reflection to 
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Make sure the activity is safe and realistic (no football, no pumpkin carving, no mental 
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Keep in mind that you budget is $0.00. You are welcome to use any of our supplies that 
we already have or can bring some. Also make sure and outline the role that each 
student/graduate student will play during your activity. Think about potential problems. 
Outline your expectations for how the activity will go.

**Assignment #4**
Reflection is the critical thread that holds service learning together. Reflection improves 
basic academic skills and promotes a deeper understanding of course subject matter and 
its relations to the non-academic world; it improves higher level thinking and problem 
solving, and students’ ability to learn from experience. Reflection promotes personal 
development by enhancing students’ self-awareness, their sense of community, and their 
sense of their own capacities. Reflection is not the same as description although 
description is a good first step in reflection.

**Directions:** Write a thoughtful reflection in **however many double spaced pages 
necessary** (times new roman, 12 pt. font, normal margins) using the prompt below. 
Please write on **and** label each section in accordance with the structure set out below. 
This assignment is due at the beginning of your next discussion group. (December 3rd or 
4th 8:00 pm). Please email your reflection to reebassistants@gmail.com and 
rreeb1@udayton.edu no later than 5:00 pm December 15th.

Reflect on that activity you planned and implemented.