

Leading the Charge: Outcomes from a Student-Driven Engagement with a Veteran Community

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Abstract

This project merged experiential learning, a service project, and one discipline's accreditation requirement for a human-centered design curriculum to engage students in designing for different user groups. The project followed a semester where students were required to engage with the community they were designing for. Ten service hours were required as a part of the course to familiarize the students with the venue and its residents of their local Veterans Affairs hospital. Upon the start of the subsequent semester, students *requested* further interaction with the veteran population they had come to know. As a means of exploring programming, a studio project was modified to fulfill their request, allowing them to further engage with the veteran population they had served through exhibit design. Though the studio course did not have an official service-learning course designation, by the end of the semester and, at the students' direction, their project transcended the traditional mold of service learning by evolving organically based on experiential outcomes. By its end, the course's objectives were met through the production of a full-scale, professionally designed museum exhibit honoring the veterans the students had come to love during their service experience. The exhibit was displayed numerous times before it found its final resting point in the VA hospital lobby. This engagement experience demonstrated that perhaps a more student-driven approach to engaged scholarship opportunities in the design disciplines could have transformative value for both learners and community members.

Introduction

The effectiveness of service learning as a pedagogical strategy has been explored extensively (Bringle & Hatcher, 1996; Conway, Amel, & Gerwien, 2009; Jacoby & Associates, 1996; Reeb, 2006; Reeb, Katsuyama, Sammon, & Yoder, 1998; Simons & Cleary, 2006; Zollinger, Guerin, Hadjiyanni, & Martin, 2009). Bringle and Hatcher (1996) defined service learning in its infancy as,

a credit-bearing educational experience in which students participate in an organized service activity that meets identified community needs and 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 civic responsibility (p. 222).

Though the nuances of service learning have evolved over time, true service-learning experiences remain difficult to achieve in some disciplines as there are many constituent groups to assemble and align, and pedagogical requirements to fulfill that do not fit easily into this mold. Engaged scholarship is an easier target for some disciplines such as interior design because much like the practice of interior design, engaged scholarship utilizes a variety of stakeholder perspectives to solve or understand a complex social problem (Van de Ven, 2007). Outside the parameters of a true service-learning course designation, students can engage with community partners through participatory course work utilizing a variety of methods of engaged scholarship. Much like service learning, these partnerships have been shown to produce insightful outcomes with enriched learning opportunities (Van de Ven, 2007). Experiential learning theory

(Kolb, 1984) is also an appropriate lens for examining participatory community activities for design students. Demirbas and Demirkan (2016) suggest that design students should utilize experiential learning theory to produce design solutions by experiencing, reflecting, thinking, and doing, a process that aligns closely with established design pedagogy.

Community engagement and service experiences are of particular importance in a design curriculum because through service students can understand the importance of empathy, or the designer's sensitivity toward the end user, in design practice. This project offers a relevant and key piece of insight into the discussion of service experiences in the design discipline as it suggests a new model for teaching human-centered design through community engagement. As Gomez-Lanier suggests, research in project-based service learning in the interior design discipline is underdeveloped (2016). This project seeks to fill a gap in scholarly literature by examining the transformative potential of student-driven service experiences within an interior design curriculum.

Service and the Design Curriculum

The interior design curriculum is unique compared to many disciplines. Assignments are more often hands-on, with project-based deliverables. Studio courses—the courses in a design curriculum that bring linear knowledge together to reach common outcomes—require students to follow a particular design process to solve complex problems, then depict design solutions through a variety of tangible design drawings, models, and renderings. Over the course of the design process, students must transform their first ideations into fully fledged executable designs through iterative study (Demirbas & Demirkan, 2016). The Council for Interior Design Accreditation (CIDA), requires that student work “apply knowledge of human experience and behavior to designing the built environment” (CIDA, 2018, p. II–20). This standard is applied early in the design process during the programmatic phase of design, or the evaluation period where user needs and project challenges are identified and strategies are developed for addressing each throughout the design process. The goal in requiring this knowledge is to prepare students for professional practice wherein designers must account for user needs and the human experience on a daily basis through the practice of human-centered design.

Human-centered design is not a design style, but is a process for designing and developing buildings, products, and communities that is grounded in information about the people who will be using them—utilizing research findings and data on cognitive abilities, physical abilities and limitations, social needs, and task requirements in order to provide living-environment solutions that enable all users to function at their highest capacity—regardless of age or ability. (Greenhouse, 2012).

Identifying client and user needs during programming and then producing thoughtful and functional design solutions indicate students have developed empathy through the design process, an important goal of interior design education. However, when faced with user populations vastly different from themselves, young designers can find programming quite challenging, especially if they have not yet developed a sensitivity toward their client or end user. Often in design education, instructors will try to engage students with their end user group to help combat potential pitfalls in designing for special populations. Research suggests that service experiences, punctuated with reflection exercises, can facilitate cultural awareness and sensitivity toward the end user, a major goal in programming for human-centered design (Bowie & Cassim, 2016; Conway et. al., 2009; Simons & Cleary, 2006). Zollinger et al.'s (2009) framework for service learning in interior design education identified four criteria for service learning wherein projects must: 1) relate to course objectives, 2) apply course knowledge, 3) connect to the community, and 4) reflect on learning. Particularly in design education, a strong connection with the end user has the potential to illicit more empathetic design solutions from students (Hess & Fila, 2015). Empathy for the end user is particularly important in design practice because a designer's client is not necessarily the end user of the space being designed. Nonetheless, the end user's needs must be met by the design. For example, a hospital executive may be the paying client in health care design, but designers must address his/her primary goals and concerns as well as the needs of the staff and patients in the design solution. In this scenario the hospital executive is the client and the staff and patients are the end

users, each with vastly different requirements for their human experience in the hospital. It follows that community engagement is a natural fit for design students as a vehicle for encouraging human-centered design solutions, which more closely align with the needs of end users, because community engagement and service experiences provide students with firsthand knowledge of these user groups they must design for. This outcome is especially relevant when students are tasked with designing for populations unfamiliar to them.

In recent years accreditation standards for undergraduate and graduate interior design programs have demonstrated an increased focus on students' sensitivity toward, and empathy for, the end user (CIDA, 2018). Student exposure and experience with such a broad constituent group is a powerful catalyst for developing a more holistic understanding of the practice of interior design. Additionally, other scholars are taking notice of the impact of empathetic design (Hess & Fila, 2015). CIDA's professional standards for interior design programs offer guidance for programs as they seek to achieve the goals for accreditation. Guidance for Standard 7, which addresses human-centered design, suggests examples for methods of gathering human-centered evidence (CIDA, 2018). These examples identify precedent studies, case studies, surveys, observations, peer-reviewed literature, and focus groups specifically, but engaging students with actual human subjects is not mentioned (CIDA, 2018). Therefore, an important goal of this project was to encourage and facilitate engagement opportunities in an interior design curriculum that foster a lifelong desire for outreach, produce rich design solutions, and promote a cultural sensitivity toward all client types. Outcomes from this experience can assist design educators in planning curriculum, which can achieve the important goal of facilitating the understanding of user needs among students in design studios. Community partnerships with the veteran population achieve the important goal of both outreach and engagement, as well as facilitate an understanding of the needs of a much less familiar user group.

Procedure

In the semester prior to this engagement experience, and as a part of the programming phase of the design for an assisted living facility, 32 third-year interior design students in a studio course on designing for special populations were

required to complete 10 hours of community service at the Veterans Affairs (VA) hospital in Tallahassee. Research suggests that although design does not specifically alleviate medical symptoms, the facility itself, if well-designed, can positively impact and diminish the intensity of some symptoms, thereby contributing to overall wellness (Olinger, 2012). The community service requirement not only familiarized students with the cutting-edge facility at the VA but also began to engage them with the VA's residents. Prior to the service period, and after receiving Institutional Review Board approval from the university, students and faculty underwent extensive governmental background checks and received tuberculosis vaccines as part of the VA volunteer protocol. Service activities included volunteering at mealtime with the residents, attending a veterans' dance, decorating for the holidays, and other limited interactions with the residents. While a few students struggled to fulfill their 10-hour requirement, others served well beyond the hours required.

Based on their generational characteristics, it was expected that students in this course would demonstrate a positive response to the opportunity to interact with local veterans. Research suggests that this learner group as a generation is civic-minded and more patriotic than previous generations, due in large part to the acts of terror they have witnessed both domestically and abroad (Raines, 2002). Sensitivity among students toward servicemen and servicewomen, therefore, seemed relevant to contemporary generational theories. To assess student perceptions of this first engagement experience with the veteran population, the Community Service Self-Efficacy Scale (CSSES) (Reeb, et. al., 1998) was administered to each student before and after their service period at the VA.

Table 1 describes the characteristics of the student cohort based on questions from the CSSES.

All students in the cohort were females, which is not uncommon in an interior design program. Data presented in Table 1 indicates that many participants in the student cohort were familiar with the military as well as assisted-living facilities. This information led faculty to the assumption that students' response to the CSSES would be favorable, as they were at least somewhat experienced with the population they were serving. Table 2 depicts student responses to questions in the CSSES in pre- and post-tests. Overall, students reported being efficient in their community service

Table 1. Sample Characteristics

	n	%
Age*	20.81	1.15
Gender		
Male	0	0.00
Female	32	100.00
Military service experience		
Yes	1	3.13
No	31	96.88
Family military service experience		
Yes	27	84.38
No	5	15.63
Personal experience with a VA hospital		
Yes	2	6.45
No	29	93.55
Family ever used assisted-living facility		
Yes	15	46.88
No	17	53.13

*Indicates associated values are mean and standard deviation, respectively.

activities and confident of the impact potential. It is notable that results in Table 2 indicate there was no significant difference between pre- and post-test results. This could suggest that the cursory experience was not significantly impactful to the students.

Faculty were somewhat surprised to discover such favorable responses to the CSSES in the post-service iteration because, although the time commitment was low, the service hours were all conducted outside of class time and in addition to regular class assignments. Faculty were concerned that the burden outside of class time would negatively influence the students' favorability of the experience. Though no statistical change was perceived from pre- and post-tests, high scores indicated that students were comfortable with and willing to participate in service experiences.

Students Take Charge

Perhaps even more surprised were faculty when, upon the start of the following semester, students in one section of the studio requested further interactions with the veterans. At the request of students, one section of the subsequent studio course containing only 16 students from the original 32-student cohort was revised a few weeks after it began to include more in-depth interactions with the residents at the VA to accommodate students' specific request of being able to "give back" to the veterans they had encountered briefly the previous semester. Although this presented a few challenges to the instructor, it was agreed upon that a new scenario would be developed that would accommodate the students' request for

Table 2. Pre-Post Comparisons of Community Service Self-Efficacy Scale and Service Learning

	Pre M (SD)	Post M (SD)
If I choose to participate in community service in the future, I will be able to make a meaningful contribution.	8.94 (1.78)	8.68 (1.73)
In the future, I will be able to find community service opportunities that are relevant to my interests and abilities.	8.90 (1.42)	8.91 (1.15)
I am confident that, through community service, I can help in promoting social justice.	8.07 (1.76)	8.14 (1.62)
I am confident that, through community service, I can make a difference in my community.	9.03 (1.66)	9.18 (1.53)
I am confident that I can help individuals in need by participating in community service activities.	9.41 (1.56)	9.14 (1.46)
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.	8.84 (1.83)	9.14 (1.28)
I am confident that, through community service, I can help in promoting equal opportunity for citizens.	8.19 (1.97)	8.32 (1.64)
Through community service, I can apply my knowledge in ways that solve "real-life" problems.	8.81 (1.89)	8.82 (1.50)
By participating in community service, I can help people to help themselves.	8.78 (1.98)	8.95 (1.68)
I am confident that I will participate in community service activities in the future.	9.16 (1.92)	9.23 (1.60)

further engagement. The remaining 16 students from the original cohort of 32 continued in their studio section as it had been planned and did not participate in the follow-up service engagement. The two sections were led by different faculty members.

Redefinition of the Course

While the first studio course that involved students with the VA included learning objectives focusing on design for special populations, the second studio course included learning objectives focusing on design for hospitality interiors. Special populations refers to unique user groups such as children, the elderly, health care or rehabilitation

facilities, and others. Hospitality design typically includes the design of restaurants, hotels, spas, and other public areas meant to serve patrons in a variety of experiences. In order to fulfill the students' request of further engagement with the veterans while continuing to meet the course's learning objectives, it was determined that the area of exhibit design was the best vehicle for accomplishing these goals. The exhibit design spinoff provided the instructor with course goals aligned within the constructs of hospitality design wherein students would learn to research, program for, and execute a design for an exhibit space. In addition to meeting course goals, the exhibit also allowed for participation with veterans as the students had further requested that the veterans be the subject of the exhibit. Studies have shown an increase in learning and appreciation of the impact of service when students are allowed choices and control within their assignments (Jenkins & Sheehey, 2011; Werner & McVaugh 2000). The design studio was therefore adjusted such that it would marry exhibit design and service with the goal of producing a full-scale exhibit honoring the veterans living in the dementia unit as well as the new Community Living Center (CLC) of the local VA hospital. Students further requested permission to collaborate on the exhibit as an entire class, rather than working on facets of the exhibit independently.

Recreation therapy was identified by the VA administrators as a likely partner for the exhibit project, as they could assist the students with the hands-on activities they were searching for. The recreation therapy activities presented a hands-on experience for the students that was a low risk/high reward intervention into the residents' daily lives. A secondary goal was collecting sufficient information on and from the residents in order to create an exhibit with them as the subject, making recreation therapy a perfect fit for the project's design.

Recreation Therapy Training and Implementation

The previous semester's background checks and screenings permitted students to volunteer on the VA campus, but training was needed to ensure student competencies in the identified recreation therapy areas. Students self-divided into five teams and, aided by the director of recreation therapy at the VA, selected the different interaction types they wanted to engage in. Training was conducted by the rec therapy team and other VA administrators in each of the five areas of participation: art therapy,

Table 3. Iterations with Residents by Recreation Therapy Category

Student Team	Activities with Residents
Art therapy	Tie dye, noodle necklace making, birdseed pine cones, painting
Nutritional encouragement	Cooking, cupcake decorating, menu planning
Oral history	Storytelling and photo album review
Photography	Photo album review, photography
Games	Basketball, trivia, card games

nutritional encouragement, games, oral history, and photography. By the time the face-to-face interactions with residents had begun, students were competent enough to understand the impact of their interactions. Together with the recreation therapy team, student groups planned activities and identified residents who would be likely to participate. Nonverbal or non-communicative residents were excluded as likely participants, as well as residents with severely diminished capacities or severe social disorders.

Interactions were planned with the residents in lieu of class time, to capture time with the residents at their optimal time of day. Each of the five student teams joined the residents in their respective buildings and were consistent with their interactions to help the residents become comfortable with their presence. No interaction was mandatory for the residents, but the activities were made available regardless of participation rates. For example, the nutritional encouragement team would commence cupcake decorating at their specified therapy time and location whether residents were present for the activity or not. Often, as the activity continued, residents would join the students one by one when they were ready. Table 3 gives an account of the activities students hosted by each student team.

Outcomes

Observations During the Service Period

Interactions with the residents of the VA were student led. This left the faculty member available to conduct observations of both participant groups. Over the course of the service period, faculty observations of the resident and student

encounters as well as students' written reflections to the interactions were encouraging. In the residents, faculty observed that interactions with the students garnered more resident participants than the VA staff had predicted. Further, a significant verbal response was noted from many residents known for their quiet, reclusive demeanor. Staff in the units where these interactions were taking place also noted the residents' anticipation of each day the students would visit. Observations of the students revealed that after the initial ice was broken, they had no trouble leading the sessions on their own. This supports research that suggests students should be engaging in service activities that maintain a balance of autonomy and supervision as a means to promote community engagement (Simons & Cleary, 2006).

Student Exhibit

Students spent six weeks interacting with the veterans and within the first three weeks of participation had determined the scale and parameters of their exhibit based on the success of their sessions with the residents. Upon completion of their visits, students designed, built, and installed a full-scale exhibit highlighting their time with the residents and paying tribute to their time in service to their country. Each of the 24 display boards it took to communicate their exhibit were 4- by 8-feet tall and were self-supporting. The boards towered above guests, both seated and standing, and the exhibit occupied the entire breadth of the newly opened community center, adjacent to the CLC and dementia unit on the VA campus. The exhibit, open to the public, also included two display boards dedicated to student reflections. Therapeutic outcomes specific to

the resident participants were verified by the recreation therapy staff and listed on each display board as requested by the director of the VA to bring to the visitors' attention the notable value of the interaction. Students also produced a full color, four-page exhibit flyer to educate visitors on the project, which also explained and called attention to the icons for therapeutic outcomes included on each display board. (See Images 1 and 2.)

Opening day of the exhibit brimmed with excitement as family, friends, caregivers and VA residents themselves poured through the exhibit space. The community center was packed and tears of joy and appreciation flowed from family members who attended. Smiles adorned the faces of the residents as they saw themselves portrayed in the massive display boards. There was barely room to move about from the residents who could not be peeled away from their pictures in the exhibit. Pride beamed from the students as what they had accomplished began to sink in. (See Images 3 and 4.)

Therapeutic Outcomes for Veterans

The recreation therapy team, VA administrators, and nursing staff all expressed their perceived impacts and patient outcomes for the veterans who participated in the interactions with students. At the VA administrators' request, and validated by the director of recreation therapy, students compiled a comprehensive list of therapeutic outcomes for resident participants. Table 4 details these findings, which highlight demonstrable outcomes and were included in the physical student exhibit. The benefits to VA residents within their functional domains, as included in Table 4, directly reflect the standard therapeutic goals for residents in this unit of care. In many instances,

staff remarked that the student engagement evoked more pronounced positive responses from residents than typical therapy sessions conducted by staff during regularly scheduled therapy programs.



Images 1, 2. Display Boards List Verified Therapeutic Outcomes



Images 3, 4. Smiles break out as the students and patients recognize the value of the project.

Student Learning Outcomes

While working on the design and production of the exhibit's display boards, students continued their traditional studio practice of following the design process to solve a complex design problem.

Table 4. Therapeutic Outcomes for VA Residents by Activity

ACTIVITY	BENEFITS WITHIN FUNCTIONAL DOMAINS
Visits from Interior Design students and collaborative efforts for exhibit	Provided intergenerational interactions and individually meaningful activities; encouraged use of communication and social skills; promoted sense of community within city resident resides; encouraged sense of purpose and usefulness
Reminiscence — Storytelling	Prompted sharing/memory recall about past life experiences; encouraged the use of language and communication skills; provided opportunity to share emotional life events in a safe setting
Sports — March Madness Shootout	Prompted use of fine/gross motor skills, hand-eye coordination; allowed for increased mobility, flexibility, range of motion and body awareness; prompted use of interpersonal and social skills while promoting sportsmanship
Games — Cards, Bingo, Black Jack, and Trivia	Provided reality orientation, encouraged alertness, active listening and maintaining of attention span; prompted use of motor, verbal, cognitive and decision-making skills; encouraged problem solving and memory recall of basic math, spelling, English and history
Arts and Crafts — Tie Dye, Necklaces, Birdseed Pine cone, etc.	Prompted use of fine/gross motor skills and hand-eye coordination; encouraged concentration and pattern recognition; encouraged trust, sense of belonging and cooperation; encouraged individual creativity and self-expression; increased feelings of self-worth and personal satisfaction through task completion
Adapted/Modified Cooking Experiences — Cupcake Decorating, Snack and Food Preparation, Menu Planning	Prompted use of fine/gross motor skills, creativity, and verbalization of personal preferences; encouraged socialization; provided alternative food choices; encouraged food and fluid intake; promoted sense of usefulness
Individual Birthday Celebrations	Promoted sense of fellowship and communion with residents, family and staff in honor of resident's birthday based on individual and/or family preferences (i.e. cake, music selections, prayers, readings, speeches, shared talents)

They used case studies and other exploratory measures to understand exhibit design, and participated as a class in exercises to determine the color scheme, font styles, and production themes of their exhibit. By all accounts they were meeting their course objectives in addition to the service work being done with the VA residents. This scenario coincides with findings from Gomez-Lanier (2016) of increased design thinking skills, and improved technical drawing and communicative skills among interior design students engaged in service-learning activities. The

resulting design product, the full-scale professional exhibit, was a tremendous display of creativity, graphic communication, and critical thinking—all of which were specified as student learning outcomes for this course. Suh and Cho (2018) suggest that instructors guide students toward a more structured learning scenario to encourage comfort with the creative process; however, contrary to their findings, students in this instance flourished with less direction from the instructor. They formed their own community of peer critics and made design decisions as a team, then

presented their decisions to the instructor. Their final work product demonstrated a full and deep understanding of the design problem at hand and demonstrated a higher quality than if students had produced each piece independently. This supports the recommendations by Kaye and Berger (2004) for demonstration, display, and exhibition of student products from service learning as a means of validation for the learning and accomplishment through the partnership.

In addition to the successful production of the full-scale exhibit, intangibles were also perceived during the interactions that must be accounted for and attributed to the service partnership. On the last day's visit, residents and students celebrated one participant's birthday in song. One veteran, previously identified by the VA staff as non-verbal and non-participatory, led the party with singing while another played the piano and another joined in on the harmonica. The nursing staff remarked that neither gentleman had played or sang in months until that time. Not a dry eye was to be found among the students who experienced firsthand in that moment the power of their time and concern for this group. In student reflections, themes emerged that quantified impacts from the service. These themes, as described in Table 5, tell the story of learning through this project and illuminate the true impact of this experience on student learning: Students can see how their interactions impact themselves, others and how it applies to their learning as well as the profession of interior design. Perhaps the most encouraging theme that emerged from student reflections was their awareness of how the experience cultivated in them empathy for the residents, an important goal of interior design education. This outcome supports literature that suggests service experiences are meaningful for deeper learning and as a means of gaining an expanded cultural awareness (Bowie & Cassim, 2016; Conway, et. al., 2009; Simons & Cleary, 2006).

Discussion

Jenkins and Sheehey (2011) suggest a 10-step checklist for planning, implementing, and evaluating service learning. This comprehensive framework is meant to guide faculty through a calculated experience with service learning as an instructional strategy. While the merit of their process is acknowledged, in this instance the unexpected engagement opportunity only allowed the instructor to pick up the project at Stage 5 in

Table 5. Emergent Themes of Student Outcomes

EMERGENT THEMES FROM STUDENT REFLECTIONS	FREQUENCY (N = 16)
	Number
Fun/enjoyment	7
Learning from/admiration for the veterans	8
Mutually beneficial experience	7
Design experience cultivating empathy	10
Veterans' pride/enjoyment	7
Helping others	10

the checklist, the step that suggests providing support and feedback to students regularly during the course of the project. Rather than strictly adhering to a multi-step, well-planned process such as proposed by Jenkins and Sheehey (2011), this project was allowed to evolve organically in response to the student and community member experiences and needs. This is perhaps one of the most remarkable and unique aspects of the project. As Bowie and Cassim (2016) point out, the rigid structure of traditional service learning is often difficult to reconcile with the fluidity of most design curricula due to its experimental nature.

In breaking with the traditional service-learning framework wherein faculty are at the helm of any service-driven activities, faculty purposefully empowered the students to direct their own learning and work product over the duration of the service engagement with the veterans. The experience grew organically in this way as students were the leaders in this unique setting rather than the natural followers of faculty expectations and directives. As new information and challenges arose over the course of this experience, students were allowed to collectively solve each issue with little intervention from their instructor. Their learning mirrored much more of a constructivist learning theory wherein the students were forming new knowledge based on their experiences during the engagement (Jonassen, 2009). In this case, and as Jonassen suggested, students were "owning" the goals and outcomes of the problem at hand (2009). In this project, through metacognition, or awareness of one's own thinking process, students used an active learning experience to build a rich web of knowledge, which ultimately led them to produce a well-designed professional exhibit. Research has shown that by engaging students in their own learning, they will form strong

bonds with the concepts and knowledge at hand (McKeachie, 2002; McGlynn, 2005). Further, their thinking patterns can even be changed by their experiences (Prensky, 2001). As research suggests, students were offered selective choices during the experience (Jenkins & Sheehy, 2011; Werner & McVaugh, 2000), both in terms of how they interacted with the veterans as well as in how they designed the exhibit. Those choices ultimately guided the experience as well as the student learning outcomes, resulting in a transformative learning experience. All 16 of the students in this class came together to create a team project like no other. They were given more than enough freedom to fail but instead, as suggested by Simons and Cleary (2006), this collaborative experience empowered the students, not only in service of the veterans but also in the way they honored them through exhibit design. These results suggest that students were eager to impact the community they served through meaningful exchange rather than simple passive service. More investigation should be conducted regarding flexibility and student leadership in service-learning experiences. Student-driven projects may be a vehicle for deeper learning as a result of the personal empowerment, leadership opportunities, and knowledge building components they bring to service-learning courses.

As this project was service-based and unexpectedly put together at the behest of students, empirical data was not collected to assess the specific rate or level of therapeutic impact for the residents. There was simply no time to set up such protocols and remain within the semester's timeline for completion. Observation and discussion with staff were the only means of data collection, which occurred organically throughout the experience. However, this does not diminish the value of the service. When, at the surprise of all parties, veterans who were "excluded" from participation by the VA staff began to demonstrate never before seen responses to the students' presence, it became clear that a strict research protocol would not have been ideal for this community group after all. Prior to the start of the students' service period for this project, consent for participation had to be gained for residents predetermined by the VA recreation therapy staff to be "a good fit" for this engagement. The experience would have taken an entirely different turn if those residents had remained excluded from participation. As it happened, each week of the engagement, VA staff presented us with another round of consent documentation

for residents who had recently joined in the activities by choice. By the end of the experience, the number of resident participants had nearly doubled. Allowing the veterans to self-select into the study was not only an important recruitment tool for participants, but was also key in expanding the students' personal and emotional growth, as evidenced in their reflection papers. All veteran participants were residents in either the hospital's locked dementia ward or their new community cottages for dementia care. Many patients in the locked ward transformed from nonverbal or non-communicative patients to active participants by the end of the six-week experience, completely by choice. During this transformation students experienced firsthand how their service helped give a voice to residents that had been written off by staff. This organic growth needs a mechanism for study and would be an interesting topic to explore further within the veteran population as well as other memory care patient groups.

Another key observation was the potential effect of gender on the experience. All veteran residents except for one were male, yet the student group was entirely female. The single female of the resident group had been a military nurse as a young woman with a litany of service accomplishments but seemed insecure and shy at the beginning of the service period. She was surrounded by all male residents as her peers and the students were determined to bring her out of the shadows. She had a birthday during the service experience and the students decided to throw her a birthday party complete with balloons, cake, and a birthday pin they had made for her to wear. That day was a turning point for her in the service experience. It cannot be said for certain that the relatability of the female students was what brought her out of her shell, but the impact of gender on participants' individual outcomes would be a valuable study to pursue in an effort to predict the most favorable scenarios for successful community engagement experiences. In addition to the effect the group of young women may have had on the single female participant, it must also be noted the potential impact of an influx of young women on a ward of senior male residents. The joy and interest on their faces was evident during every visit. Many of the residents were widowers and enjoyed talking with the students about their love conquests as young men. Both examples demonstrate that further study is needed to explore the impact of gender in service-learning experiences.

It is also prudent to identify lessons learned from this experience through the lens of the faculty sponsor. The students in this course *requested* the opportunity to engage further with the veterans in their community, and although this course had to be modified to accommodate their desires, it was done so with the hope that the experience would help them develop a deeper understanding of human-centered design, a key component in design education. CSSES scores from the previous semester's activity indicated that although students' confidence in their ability to "help individuals in need by participating in community service activities" were above average, the post-test data revealed no significant change after the volunteer work had been completed. This supports service-learning literature that suggests that without a true service-learning framework, community service engagements have little lasting educational or social/emotional value to students (Bringle & Hatcher, 1996; Conway, et. al., 2009; Simons & Cleary, 2006). Additionally, these results could indicate that the community service experience illuminated the need within the veteran community to such a degree that the students stagnated in their confidence rather than experiencing growth and reinforcement of their self-efficacy for community service as suggested by Reeb (2006). Nevertheless, it is notable that while this project began with a simple community service requirement, it evolved into something much larger and much more involved at the students' request. This may suggest that students are not only capable of but are also interested in making deep connections with others as part of their knowledge-seeking process. Perhaps their ability to learn outside of traditional classroom activities is more advanced than we know, and that they crave opportunities to impact the world around them, especially in marginalized communities. Further exploration is needed to identify the level of engagement in service activities with the most potential for positive impact on student growth and efficacy in community service.

The impromptu design of this engagement prohibited it from including a final round of the CSSES administration, but in the absence of quantitative data to support student growth in this area, student reflections suggest that every student in the exhibit design cohort was positively impacted by this experience. As depicted in Table 5, "design experience cultivating empathy" and "helping others" were equally notable among

student reflections, occurring in over 62% of reflection papers. This suggests that in addition to the visual evidence perceivable in the physical exhibit, student reflections also indicate growth in the understanding of human-centered design as a result of this service experience. The relevance in particular to interior design education is that nowhere in the list of suggested activities for the instruction of human-centered design as written in CIDA accreditation standards is the suggestion of service learning. This omission is critical in that it overlooks the potential for firsthand knowledge obtained through a service experience as well as other advantages of non-traditional learning opportunities (Bowie & Cassim, 2016). Furthermore, it overlooks the potential of projects allowed to progress in an organic fashion. The transformative nature of service allowed students in this instance to control their path of learning and growth, and it is expected that their advances in this knowledge domain were greater than what is easily achieved through other recommended instructional techniques as written in the CIDA guidelines. This supports the work of Bowie and Cassim (2016), which advocates the deliberate pairing of service learning and human-centered design due to their natural overlap in theory and practice. Further, the implications of this experience can be applied beyond interior design education to the variety of disciplines that seek to improve the experience of users through human-centered design.

Limitations

Stakeholder partnerships were strong for this project. One key component to the success of this endeavor was the buy-in offered by the VA hospital, its administration, its staff, and residents. An equal force in this collaboration was the support of the administration the students represented. From the faculty and department level all the way to the College's Advisory Board—the group that funded the fabrication of the exhibit—students were supported one hundred percent in their efforts. These strong partnerships instilled confidence in the students and fostered an appreciation for the opportunity they were given. However, top level administration for the VA experienced several changes over the course of this project and beyond. The turnover rate failed to protect the interest of the partnership between the interior design department and the veteran population, limiting the continuum of service learning going forward.

Service learning in its traditional form requires an ongoing benefit to the community partner, which cannot be guaranteed when leadership is not consistent. The tangible outcome of this collaboration was a full-scale, professional quality exhibit produced by the 16 students enrolled in this class. The display was so impressive that it not only remained on exhibit at the VA for several weeks after its opening, but it was subsequently a requested component of a Smithsonian Traveling Exhibit, and was also put on display in the Alabama Museum of Natural History. It was displayed again upon request of the planning committee at the Service Member to Civilian National Summit in 2014. At present, plans are in place for a permanent installation of the exhibit in the VA where the project took place. In the absence of continued collaboration with the recreation therapy team and residents of the VA, the professional display that honors this collaboration and the veterans who participated will serve as a reminder of the impact of this experience to all who enter the VA medical center. The new installation space is planned for the main lobby of the medical center on the VA campus.

Conclusion

Despite the challenges of working with a community partner with ever-changing leadership and having to design a service-based course at the last minute, the value of this experience to both students and veterans cannot be overlooked. More study into the potential for impacts to similar communities, such as with persons in memory care units or other veteran community groups, would be beneficial as others seek to understand best practices for engagement with underserved community groups. It is notable that, for a variety of reasons, students were impacted socially and emotionally by this collaboration with the veterans. This suggests that careful consideration should be afforded to service-learning projects to ensure that the student group is gaining as much from the community as the community is from the student engagement.

Furthermore, this project has illuminated the potential impacts when students are empowered to take control of their own learning experiences. What began as a simple community service project evolved into a yearlong, highly involved relationship with a community partner at the students' request. While this is not an appropriate model for every service opportunity, further investigation is needed into the traditional

understanding of the faculty/student relationship in community-based partnerships. The flexibility of this engagement (and faculty leader) was critical in the effectiveness of the experience. There was no faculty ego to overcome or agenda to complete, illuminating the potential for emerging student leaders when individuals are empowered to direct their own learning. The untapped potential of student-driven engagements could be a key component to understanding best practices for service learning and human-centered design.

Finally, in a societal age focused on the user experience, from software development to product design to classroom instruction, the success of this project in its ability to connect students to a user group through a careful examination of human-centered design depicts the relatability of design education to other disciplines. Human-centered design is at the heart of design practice and education, and is a model that could be employed by any discipline as a means to connect to user groups. Service learning is a logical vehicle to establish this connection between students and users, especially when *users* are realized as consumers of knowledge, goods, and/or services. Therefore, meaningful partnerships between students and community stakeholders should always include the voice of not only the client (in this case, the VA administration and staff), but also the end user (in this case, the VA residents) to enable students to fully understand their target audience/user/consumer. To that end, all service-learning opportunities should include student opportunities that empower them with agency within their own field of study.

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