Learner Centered Service Learning in Occupational Therapy Education

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Abstract

Introduction: A learner-centered approach to service learning indicates that the student designs and drives the learning. This paper reports on a unique line of research which investigates the effectivesness of this learner centered approach to service learning. While traditional service learning models use problem-based approaches, our model is especially geared for introductory, professional courses in which students may not have the established skill-set, necessary for more complex clinical concerns. Our learner centered service learning approach was developed out of necessity. The aim of our research was to understand the student perspectives on the effectiveness of this self-directed approach. **Method:** A non-experimental, retrospective design to examine surveys that were already routinely collected by our in-house institutional center was used for this study. **Results:** Our results suggest that students overwhelmingly perceived the service learning approach positively. **Conclusion:** Students saw value-added benefit in the areas of both course learning and the development of professional behaviors. Our findings were consistent with other well-documented service learning outcomes in academic achievement and personal growth. Our hope is to help other educators with common dilemmas: Innovating education with fixed resources and changing educational climates.

Introduction

Service learning is a pedagogy. It is a philosophical stance. It is a tool for fostering student learning, critical thinking and civic engagement (Burtin, 2010). Our approach to service learning embodies these established educational values, yet, goes beyond traditional approaches. When we engage in learner-centered service learning what specifically do we mean? Learner-centered implies that the student designs and drives the learning. Unlike traditional project-focused service learning that is constructed by an instructor, our projects are initiated, crafted and created by students.

How did this innovative approach emerge? Our institution dictated a new experiential learning graduation requirement and our program enrollment dramatically increased, but the number of community agencies in our small, rural area did not. It was no longer possible to effectively regulate and closely monitor enough community partnerships by using traditional service learning models. Our approach and this research emerged to fill this real-life need. We needed an innovative, effective pedagogical solution. Our solution was to have the students design, initiate and implement their own experiential service learning with the instructor serving as a mentor. This research evaluates the efficacy of this approach.

Service Learning and Occupational Therapy Education

Occupational Therapy educators utilize a wide variety of pedagogies at different points in a curriculum. Research has revealed that the vast majority of programs in the United States use relational learning, affective learning, and highly contextualized active engagement or learning through doing (Schaber, 2014). Service learning, as we see it is highly contextualized with active engagement at its core. Occupational therapy educators view students as occupational beings who are dynamically interacting with the learning context and with the teaching and learning process (American Occupational Therapy Association, 2014). Learner centered education, where the students design their own experiences, enables students to engage dynamically with their learning and professional development needs taking center stage.

Service learning is a well-recognized pedagogy in occupational therapy education. Service learning has been defined many ways. All definitions agree that the essence of service learning

rests on a philosophy of service and learning that occurs in experiences, reflection and civic engagement with a collaborative relationship involving community partners (Flecky & Gitlow, 2011). Service learning engages faculty and students with community partners in structured opportunities to meet academic learning objectives while addressing community needs. Service learning is different from volunteering because there is an explicit connection between course objectives with structured community interactions to meet community driven needs. The emphasis throughout service learning is placed on learning through doing and critical reflection.

Much of the literature supports project-directed service learning where the course instructor establishes the project and the students volunteer at the site in order to make progress towards course learning objectives. In this approach, the focus is placed on content knowledge. In-contrast, a learner-centered education promotes engagement while encouraging students to connect what they already know and excites them to new concepts (Weimer, 2002). When applying learner-centered education principles to service learning the learning is de-centralized and individualized.

Reflection as a pedagogical strategy

Best practices in the implementation of learning, specifically in service learning, stress reflection. Reflection is critical to academic growth and development. Critical reflection is an integral part of service learning, without it students are limited to volunteerism. A US consortium of colleges and universities recommends the following to achieve an integrated learning experience: "state your learning outcomes," "introduce the concept and practice of critical reflection," "design a reflection strategy to achieve the learning outcomes," "engage the students," and "assess learning through critical reflection" (Campus Compact, 2015, pp. 31-42). This reflection typically happens during or after the completion of a project and is directed by the course instructor (Delano-Oriaran, 2015). Best practices in OT education include continuous opportunities for professional judgment, evaluation and self-reflection. Our application of reflecting is highly influenced by reflection-in-action and reflection-on-action (Schon, 1984). Expectedly, students engage in reflection-in-action as they adapted their interactions, actions and expectations in the real-life time of the service. Our research, however, taps more into the later, reflection-on-action as the student

thinks about the experience after the experience has concluded. In addition, our approach moves beyond Schön (1984) by inviting the student to engage in a prior reflection. This means that our students reflect before, during and after their experience with formal written reflection occurring at both before and after points.

Role of student goals. Learning goals are a key feature in this pre and post reflection. Prior to the service, students reflect on the mission of the agency and their own professional aspirations, learning, and development. From their reflection, students compose three learning goals. The first goal shaped learning related to course objectives. The second goal directed the student's own professional growth. The third goal detailed how the student would meet the specific, stated needs of the community. Research suggests that self-directed, individualized goals are attained at a higher rate than goals selected by another person (Chapleau, 2015).

Professionally written goals are individualized, measurable, realistic, understandable, and time limited (Sames, 2015). In our course, students created personal, measurable goals that had to be achieved within a semester, for example: "student will comfortably

interact with staff members by end of the semester." Since each of our students come with different levels of knowledge and ability, student goals were diverse. Some students have never held an infant while others helped to raise younger siblings.

Our Curriculum, Courses and Learning Objectives

Our College Community has a long history of service learning and commitment to civic engagement. Our motto is "Educate for Service". An *Office of Civic and Community Engagement* works (Elizabethtown College, 2016) to establish partnerships with our local neighbors, some of which are within Elizabethtown, a small suburban community in south central Pennsylvania.

In our combined BS/MS 5-year occupational therapy program, service learning is required in two consecutively taught sophomore courses: Childhood Development & Occupations Active Learning Lab (OT223) and Development & Occupations of Adulthood (OT224). The fall course content focuses on children; the spring focuses on adults.

In these courses, students learn about children and adults in real-life environments (e.g., naturally occurring

contexts). Our students serve non-clinical community agencies such as daycare, schools, after school programs, etc. or senior community programs, continuing care community independent living, birthing classes, mom's support groups, etc. These relationships are maintained at the level of the institution through our *Center for Community and Civic Engagement* (CCCE), who coordinates procedures and policies for College – community partnerships. According to the CCCE, the majority of community partners have a need for additional "hands." For the purposes of our course students fulfilling the helping hands role works quite well. Students are able to gain exposure to varied populations where they can observe course concepts in action while subsequently meeting the need of the community partner. Students seeking opportunities for more than lending a helping hand are able to run groups and create simple programs for the partner.

Specifically, this course sequence supports these learning objectives: (1) Discuss how cultural, physical, social, and personal contexts contribute to ADL, IADL, play, school and social participation. (2) Assess motor, process and communication/interaction skills across childhood developmental stages (e.g., infancy, preschool, school-age and adolescent). (3) Adapt therapeutic use of self, environments and activity demands to elicit occupational performance for children at all ages. The assignment presented in this research supports all three of these objectives.

Parallel service learning assignments are completed in each course. This assignment requires the submission of the following documents: signed CCCE Community-Based Learning Agreement or equivalent, "Before You Go" Reflection, "After You Go" Reflection, a signed Hour Log and a completed CCCE Community-Based Learning Evaluation.

In summary, there are many reasons to engage in this research at this particular time. While we were inspired to adopt a learner-centered model by pragmatic forces, we are driven by the existing literature to evaluate its efficacy. We believe that the more students are engaged in the structuring of their learning, the more they benefit from the outcomes. Yet, we wanted evidence of the efficacy of this pedagogical strategy with our students. Our research questions are: (1) How did the student's perception of the learner-centered approach differ between the childhood and adult courses? (2) What was the students' overall perception of the learner-centered service learning?

Method

This non-experimental, descriptive educational research used retrospective quantitative analysis of existing survey and qualitative data. Data was collected as part of the existing educational assessment practices for this required, sophomore occupational therapy course sequence. All institutional courses that used community-based or service learning required the completion of the survey. The data collected from the surveys were used for our study.

Data was collected during the 2013-2014 academic year courses OT223/OT224. Quantitative data from the surveys was collected in both semesters. The data from the surveys was collected as part of a required graded assignment (i.e., students received a points only if they submitted a completed form). This means that there is a potential for positive reporting bias. This was controlled in the analysis because the primary researchers de-identified data. Thus, confidentially was maintained. In addition, analysis was not completed until the students had received their grades. This meant that there was no risk for students with regard to grade penalties. The analysis of information was conducted retrospectively.

Qualitative data was collected only in the spring semester. The qualitative data was solicited verbally in the last class session with three open-ended prompts: *1. Describe three of the most important aspects of the service learning. 2. Reflecting back on your hopes for this experience, identify any factors that prevented you from achieving your expectations. 3. Discuss the differences between the fall 10 and the spring 15 hour service learning experience.* Students submitted their

Table 1

Overview of the Student Community Service Learning Experience

	Fall Semester	Spring Semester
Population	Children	Adult
Number of hours	10.80 hours	15.27 hours
Geographic area	Rural	Rural
Previous experience	52%	26%
Orientation	31%	9%
Positive contribution	88%	93%

responses on scrap paper with no identifying information.

Participants

Thirty-eight sophomore students, mostly female, participated in this research. Only two males were represented in our data set. The same set of students completed the service learning across two semesters. There were two students who completed only the fall semester. These students were omitted from the data. See Table 1 for additional information on the students who participated in this research.

Measures

Center for Civic Engagement form. In addition to demographic information (e.g., community setting, number of hours served, basic roles / responsibilities), this form contained a series of 5 questions that were scored on a Likert scale. Other interesting demographic items were the students' previous experience with this population and agency orientation policies.

Analysis

Once the data was collated and de-identified, both numeric data from the formal survey and narrative data from the student responses to prompt questions were entered into a Microsoft Excel® spreadsheet. Quantitative data was exported from spreadsheet to IBM® SPSS® for an analysis including measures of central tendency and paired t-tests. Paired t-tests were used because the same group of students completed both the fall and spring surveys (i.e., dependent groups). Qualitative data was coded for themes using the process described by (Saldaña, 2012). With an intentional strategy that extends beyond typical analysis of thematic data, the data from each prompt was analyzed separately. The credibility of the qualitative analysis was developed by examining the degree of consistency between two separate raters. This meant that once themes were established, each researcher re-coded the data separately. Percent of agreement was used to examine the consistency with which the researchers identified similar codes to individual student comments.

Results

In general, there was limited evidence to support the first research question that addressed the relative differences between the fall and spring (i.e., childhood and adult) courses. Group differences did not reach the desired level of significance ($p < .05$) on any of the five Likert scale questions. Students in both courses of the sequence

Table 2

Students' Perception of the Community Based Service Learning

	Fall			Spring		
	Mean	Median	Mode	Mean	Median	Mode
I have experienced **educational** growth as a result of the service learning.	4.69	5.00	5.00	4.59	5.00	5.00
I have experienced **personal growth** as a result of the service learning.	4.66	5.00	5.00	4.54	5.00	5.00
The agency met the **needs of my class** requirements.	4.07	4.00	5.00	4.51	5.00	5.00
My civic engagement experience **addressed a community need**.	4.90	5.00	5.00	4.87	5.00	5.00
My civic engagement was a **benefit to the agency.**	4.67	5.00	5.00	4.72	5.00	5.00

perceived learner-centered service learning positively. It was interesting to note, however, that there were significant differences in the students' experience and the community orientations. Students had more experience working with children than adults, t=-2.729, p≤.010. The agencies with adult populations provided more training than the agencies with children, t=-2.737, p≤.01.

As noted above, the students perceived the service learning experience positively. Both qualitative and quantitative data analysis supported the veracity of this claim. Students consistently rated this experience very highly (see Table 2). Not one student rated the experience below "average." All students felt that participation in service learning would positively influence their willingness to serve the community at a later point in their life.

Figure 1. Factors that influence learner-centered service learning
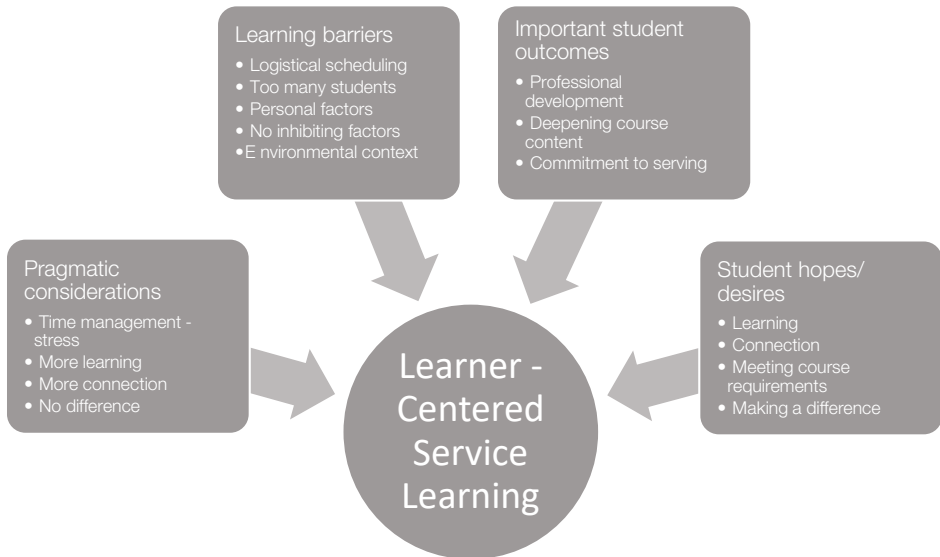
In the analysis of the student narrative comments, students again articulated the value of the service learning (see Figure 1). Students understood how this experience enhanced their learning or progression towards learning objectives. This was overtly articulated with regard to inter and intra-professional growth. A resounding theme was to build adult-to-adult relationships. This is illustrated in the following student comments: "One important aspect of service learning was about the older generation and becoming more comfortable with them" or "Bettering my ability to speak professionally and build relationships with individuals who are older than me. I was able to practice being an active listener and engage in professional conversations." This next statement also illustrates a focus on adult development:

My hope for service learning was to become more comfortable with older adults. I am more comfortable, but I still did not approach every senior with the amount of confidence that I should have. My fear was that I would be intruding and insult them in a way.

Another important component of professional growth that emerged in the thematic analysis was identifying their future area of practice setting and population. This is illustrated in the following comments: "The hope I had

was to figure out which population I wanted to work with. I liked them both so I am now still unsure as to which population I want to work with." Or

One hope that I had for service learning was to become more comfortable with the older adult population and see if this is a population I could want to work with. I was able to achieve everything that I wanted with this experience and would enjoy working with this population in the future.

As expected, themes also identified how the service learning experience connected with student understanding of course content. Students desired to see how childhood and adult development "looked" in real-life. These student observations connected well with course learning objectives. The following excerpts are examples from the transcriptions: "See first-hand the impact of culture and a language barrier on family roles and involvement in the community with education" or "having real life examples to reinforce class material."

Another interesting theme derived from the student comments did not relate to learning or professional development. This theme took an unusual turn and spoke about an institutional mission of service. Students voiced that

contributing back to the community was important. This belief is expressed in the brief statements such as: "Allowed us to give back and help at these different locations" or "actually felt like I was making a change in people's lives in the institution."

Time and again, there was a resounding concern which arose from students. Barriers to student learning included stress, scheduling constraints and challenges to time management skills.

Overall, there was a high degree of consistency in the themes that emerged from three different prompts. No matter how the comments were solicited, students recognized that the service learning helped them learn course content.

Conclusion

Our findings were consistent with other well-documented service learning outcomes in academic achievement and personal growth (Campus Compact, 2015). Our students did indeed learn course content and make progress toward professional growth and in the development of their professional identity. Service learning, in our discipline, is also a means to develop professional clinical reasoning (Schaber,

2010), skills and behavior (Witchger Hansen et al., 2007).

Implications for Occupational Therapy Education for the student

Our research establishes learner-centered service learning as an effective alternative to instructor driven opportunities especially for students who are at the introductory course level. With this approach, students are able to focus on the skills that they perceive to be weak. Intrinsic motivation is required for lifelong learning and the ability to adapt to change (Chapleau, 2015). Providing students with the ability to self-identify growth areas allows the learning to meet the baseline need of students and progress at a pace that meets their *just right challenge* (Csikszentmihalyi, 1990).

The narrative comments confirm the students' need to have opportunities which enhance the professional identity necessary for work in healthcare and community settings. Our students are very attune and aware of their need to relate to other professionals as adults. This inspires course instructors to consider adding additional adult development learning activities in order to prepare students for Level I and Level II Fieldwork. Course instructors see a critical role for this learner-centered service learning as a pre-requisite for traditional learners who are launching into professional roles. In addition, course instructors note that this experiential learning has a direct impact on the exposure of students to community settings.

Our students expressed time constraints, scheduling conflicts, poor time management skills, and stress as barriers to their satisfaction and success with their experience, albeit they expressed high levels of satisfaction. Time management, managing stress, and scheduling are important professional skills that are necessary for successful professional work. One would expect low satisfaction given the negative comments made about time, scheduling, and stress. Indeed, research with college students indicate that students experience higher levels of satisfaction and success with stress and time management when they have control over their time (Nonis, Hudson, Logan, & Ford, 1998). Our approach allows students to design their experience and thus have control over the time frame for completion, which may explain why students reported high levels of satisfaction and 100% project completion despite perceived barriers of stress and time.

Pushing oneself outside of a comfort zone facilitates a broader understanding

Table 3

Summary of Narrative Analysis

Prompts	Themes	Percent of Agreement
#1 – Discuss three of the most important aspects of your service learning experience.	Primary themes • Professional development • Deepening course content • Commitment to serving	85%
	Secondary Themes • Meaningful participation • Expanding comfort zone • Career exploration • Competence in building rapport • Inter-professional relationship • Time management	51%
#2 – Reflect on your hopes for this service learning. Identify one hope that you had, and explain what prevented you from achieving it.	Hope Factors • Learning • Connection • Meeting course requirements • Making a difference	51%
	Barriers • Logistical scheduling • Too many students • Personal factors • No inhibiting factors • Environmental context	74%
#3 – Last semester you participated in service learning for 10 hours. This semester, you participated in 15 hours. Describe how this change influenced your experience.	• Time management - stress • More learning • More connection • No difference	87%

of culture which is supported by scholars in the pedagogy of service learning (Campus Compact, 2015). This practice of extending the students' experiences not only prepares students for fieldwork experiences, future employment in diverse community and health care environments, but also

supports values of equality and justice. The comments made by several students reflect intentional learning in relation to professional identity, enhancing course learning, and seeking novel experiences. This practice of focusing on the development of the professional self builds foundations for life-long learning.

Implications for Occupational Therapy Education for the Instructor

While there are many implications for student learning, many more exist for the instructor and potentially for the program. Our research establishes learner-centered service learning as an effective means to teach course content and to achieve student learning outcomes related to course content and professional development. This approach provides opportunities to enhance professional development instruction related to learning how to relate to adults as adults. Additionally, this approach may establish improved community relationships, fostering future fieldwork and/or research partners. Careful collaboration between the instructor and the student during the early reflection process is critical to facilitate meaningful work. When students facilitate the partner interaction, the instructor is able to dedicate more time to course content learning, mentor the student to create a meaningful experience

with appropriate goals to facilitate professional development growth and in depth reflection.

The faculty involved in our research, while both trained occupational therapists, one has a graduate degree in human development and the other in occupational therapy. The lens used to analyze the qualitative data was analyzed through two different viewpoints, one through human development, the other through meaningful occupation. This difference in training may explain the lower than desired inter-reliability in our thematic analysis. Having instructors with different skill sets may be a liability with regard to analysis, but has proven to be an asset in assignment creation, as the parameters for goal writing support both a focus on human development and occupation.

The number and type of sites used for this assignment is only limited by the creativity of the students. In our research, students partnered with sites that the college had no previous connection. In many cases, initial service learning projects have materialized into sites where students can go repeatedly, use as fieldwork sites and research partnerships. Using this individualized service learning experience, students have been introduced to community based settings prior to the first fieldwork

experience, thus making non-traditional fieldwork more appealing and accessible to the program.

Study limitations

The study is limited by the sample, as the students are homogenous, mostly females, all sophomores, and all from one college participated in this study. In addition, the students self-reported the survey data. Lastly, the self-reported data was gathered as part of a graded course. While anonymity was assured and confidentiality promised, there may have been reporter bias as the students participated in a graded course at the time of the data collection.

In conclusion, our learner-centered service learning experience proved to be an opportunity for an increasing number of students to learn material outlined in our course objectives. Students were able to practice reflection and goal writing, and begin to develop professional behaviors that will serve them well in our communities and in our profession. While the students could learn course content in a multitude of ways, this highly contextualized active signature learning experience enabled our students to engage in our college wide "Educate for Service" mission while completing a Signature Learning Experience enhancing their personal and academic

skill sets. The supported reflection work that students completed has the potential to set the stage for lifelong learning and may inspire future work in the community with underserved and at-risk populations.

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