

Touro Scholar

College of Health & Human Services (TUN) Publications and Research

College of Health & Human Services

2018

Innovations in Occupational Therapy Education: The Centralized Service Learning Model

Lauren E. Milton

Robyn Otty Touro University Nevada, robyn.otty@tun.touro.edu

Follow this and additional works at: https://touroscholar.touro.edu/chhs_pubs

Part of the Higher Education Commons, and the Occupational Therapy Commons

Recommended Citation

Milton, L. E., & Otty, R. (2018). Innovations in Occupational Therapy Education: The Centralized Service Learning Model. *Journal of Occupational Therapy Education (JOTE)*, *2* (1). https://doi.org/10.26681/jote.2018.020108

This Article is brought to you for free and open access by the College of Health & Human Services at Touro Scholar. It has been accepted for inclusion in College of Health & Human Services (TUN) Publications and Research by an authorized administrator of Touro Scholar. For more information, please contact touro.scholar@touro.edu.



Journal of Occupational Therapy Education

Volume 2 | Issue 1

Educational Innovations

Article 8

2018

Innovations in Occupational Therapy Education: The Centralized Service Learning Model

Lauren E. Milton *Washington University School of Medicine in St. Louis*

Robyn Otty Touro University Nevada

Follow this and additional works at: https://encompass.eku.edu/jote Part of the <u>Higher Education Commons</u>, and the <u>Occupational Therapy Commons</u>

Recommended Citation

Milton, L. E., & Otty, R. (2018). Innovations in Occupational Therapy Education: The Centralized Service Learning Model. *Journal of Occupational Therapy Education*, 2 (1). https://doi.org/10.26681/jote.2018.020108

This Educational Innovations is brought to you for free and open access by Encompass. It has been accepted for inclusion in Journal of Occupational Therapy Education by an authorized editor of Encompass. For more information, please contact Linda.Sizemore@eku.edu.

Innovations in Occupational Therapy Education: The Centralized Service Learning Model

Abstract

Partnerships between community organizations and engaged university members creates realistic learning experiences for occupational therapy students while encouraging civic responsibility. The authors propose service learning as the core of an innovative course design framework using the Centralized Service Learning Model (CSLM). Three phases are described. Phase One provides a description of the CSLM using a generalizable model, with specific application within existing occupational therapy program coursework. Phase Two provides leadership opportunities for a subsequent cohort of students within the curriculum. Finally, Phase Three integrates faculty scholarship. To understand students' knowledge-level awareness, a survey based on course objectives can be administered, and ongoing journaling using reflections that promote critical thought, such as guided reflection, may be utilized. Faculty members can utilize this innovative course design framework to provide meaning and engagement to students during service learning projects while simultaneously meeting service, scholarship, and teaching obligations.

Keywords

Service-learning, student engagement, community, scholarship

Creative Commons License

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License.

Acknowledgements

For her unwavering support, we would like to acknowledge Dr. Marilyn Cohn, former Director of the Finch Center for Teaching and Learning at Maryville University.



Volume 2, Issue 1

Innovations in Occupational Therapy Education: The Centralized Service Learning Model

Lauren Milton, OTD, OTR/L¹ and Robyn Otty, OTD, OTR/L, BCPR²

Washington University¹ and Touro University²

United States

ABSTRACT

Partnerships between community organizations and engaged university members creates realistic learning experiences for occupational therapy students while encouraging civic responsibility. The authors propose service learning as the core of an innovative course design framework using the Centralized Service Learning Model (CSLM). Three phases are described. Phase One provides a description of the CSLM using a generalizable model, with specific application within existing occupational therapy program coursework. Phase Two provides leadership opportunities for a subsequent cohort of students within the curriculum. Finally, Phase Three integrates faculty scholarship. To understand students' knowledge-level awareness, a survey based on course objectives can be administered, and ongoing journaling using reflections that promote critical thought, such as guided reflection, may be utilized. Faculty members can utilize this innovative course design framework to provide meaning and engagement to students during service learning projects while simultaneously meeting service, scholarship, and teaching obligations.

INTRODUCTION

Academics are under tremendous pressure to meet a variety of institutional expectations while fulfilling an assigned teaching workload. The focus of this paper is an innovative service learning approach that creates a "synergistic blending of experience and reflection with an aim to enrich the connections between doing and knowing" (Kalles & Ryan, 2015, p. 133) and, in parallel, expounds on the scholarly requirements of an academic. This paper discloses how faculty members' obligations of scholarship, teaching, and service are simultaneously incorporated within graduate-level occupational therapy (OT) curriculum through development and implementation of an innovative service learning framework called the Centralized Service Learning Model (CSLM; Otty & Milton, 2016).

Description

Service learning in post-secondary education connects faculty and students to the community in unique, positive ways (McDonald & Dominguez, 2015). This meaningful connection supports the partnership between community organizations and engaged university members to create "real-life" learning experiences while encouraging civic responsibilities. Higher education institutions embrace service learning through strategic institutional culture, featuring "hands-on" learning opportunities and student engagement as central values to the college experience (Gelmon, Jordan, & Seifer, 2013). Research supports the effectiveness of service learning as a pedagogical approach to enable greater understanding of course material through authentic problem solving and engaged activity in the community (Flinders, Nicholson, Carlascio, & Gilb, 2013; Stenhouse & Jarrett, 2012). Service learning as a pedagogy is rooted in constructivism and experiential learning theories that support constructs found within social justice (Sabo et al., 2015; Tinkler, hannah, Tinkler, & Miller, 2015; Yorio & Ye, 2012). A social justice model ensures the service learning experience ethically and responsibly serves the needs of the community as well as the students (DePaola, 2014). Therefore, service learning programs should make certain the university and the community partner mutually benefit from the experience (Pollard & McClam, 2014). To produce effective student learning opportunities in the community, faculty should set the stage, providing a framework for the experience. Literature supports student appreciation and opportunity for experiential learning and faculty allowances to learn by doing (Bowen et al., 2011; Doyle, 2011; Pope-Ruark, Ransbury, Brady, & Fishman, 2014). Darby and Newman's (2014) qualitative examination of faculty perceptions of service learning found positive results for both faculty and students in meeting the course purpose and learning outcomes, and reported student feedback that reflected learned concepts. In addition, service learning environments promote the communication skills necessary to work with others (Adam, Peters, & Chipchase, 2013). These rich experiences foster the confidence and the skill development essential for self-efficacy (Kruger, Nel, & van Zyl, 2015; Simonian, Brame, Hunt, & Wilder, 2015). A meta-analysis by Yorio and Ye (2012) found service learning had a significant impact on personal insight and awareness of one's personal development. Service learning fosters autonomy and creates opportunities for students to gain confidence through processing inherent self-doubt and failures, and learning from limitations to build new, positive experiences. The student moves from a passive recipient of knowledge to an "active agent and creator of new knowledge" (Johnson, 2014, p. 31).

The CSLM (Otty & Milton, 2016) was developed and implemented based on the Partnership Model for Service Learning (PMSL; Flinders et al., 2013). The PMSL provides a five-step procedure to establish community partnerships, include students, grow a community program, and combine faculty endeavors with service and teaching to enrich the student experience. Similar to the PMSL process of establishing authentic community partnerships, the CSLM integrates the service learning experience, but between two courses instead of one. The courses achieve different objectives, yet have concurrent, related assignments known as student learning activities. Both faculty members of the targeted courses commit to the development of learning activities that

not only meet course objectives, but also scaffold to enrich the service learning experience and connect the coursework for greater meaning.

To illustrate the flexibility and creativity of the CSLM, the authors propose a three-phase implementation. With the exception of the first phase, the second and third phases are not sequential steps to full execution but rather additions to the foundation of the CSLM. Phase One describes the CSLM using a generalizable model, and then provides specific application within existing occupational therapy program coursework. Phase Two adds a subsequent cohort of students within the curriculum. Finally, Phase Three integrates faculty scholarship. Any phase can be modified to accommodate coursework and student learning activities within a vast array of disciplines.

PHASE ONE: BUILDING THE FOUNDATION FOR SERVICE LEARNING

Considered the foundation of the CSLM, Phase One bridges two courses with a service learning experience, identified as "Community Programs," in the illustration of the first step of CSLM (Figure 1). The connected courses require separate student learning activities that build upon each other, also indicated in Figure 1. Learning activities include purposeful assignments and experiences based on the Community Programs that bring together the objectives for both courses. For example, in Figure 1, the first student learning activity in Course 1 connects or provides meaning in a complimentary manner to the first student learning activity in Course 2, or vice versa. This connectedness repeats until the conclusion of the semester when each course reaches its culminating student learning activity. Finally, students complete a written reflection representative of both courses, noted in Figure 1.

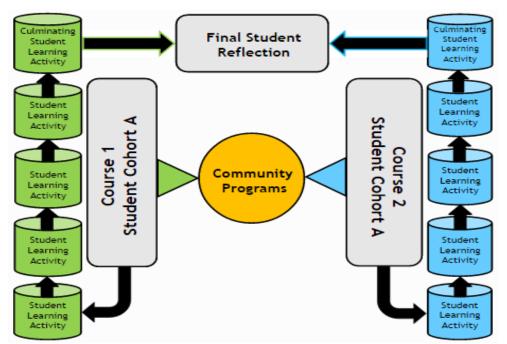


Figure 1. Phase One of the CSLM implementation: Foundation. From "Collaborative Structures in a Graduate Program" by R. Otty and L. Milton, 2016, *New Directions for Teaching and Learning*, *148*, pp. 51 – 63. Copyright 2016 by Jossey Bass. Adapted with permission.

The authors' implementation of Phase One of the CSLM and examples of how specific learning activities were intermingled within an OT program are presented in Figure 2 and further explained in Tables 1 and 2. The first student learning activity in OCTH 665 Graduate Seminar is the Needs Assessment assignment (see Table 1), designed to explore the community partner's mission and vision, and to discover cooperative fact-finding subcomponents to determine programmatic needs. OCTH 602 OT Management and Administration includes Strategic Planning (see Table 2) as the first student learning activity. The Strategic Planning assignment requires students to use findings from the Needs Assessment in order to conduct a Strengths, Weaknesses, Opportunities, Threats (SWOT) analysis, and create the team's tailored mission statement, vision statement, timeline, and goals. Each team considers itself a non-profit organization throughout the semester of engaging in the CSLM via OCTH 602 OT Management and Administration, further exemplifying the real-world nature of the experience and thus, translating course concepts to enhance student engagement and application.

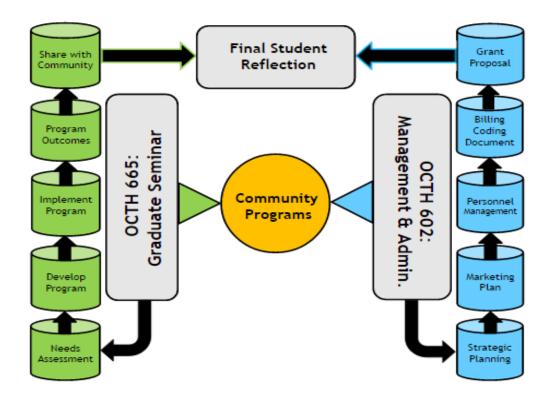


Figure 2. Example application of Phase One of the CSLM with associated student learning activities for each course, along with final student reflection shared between both courses. From "Collaborative Structures in a Graduate Program" by R. Otty and L. Milton, 2016, *New Directions for Teaching and Learning*, *148*, pp. 51 – 63. Copyright 2016 by Jossey Bass. Adapted with permission.

Table 1

OCTH 665 Graduate Seminar Learning Activities and Learning Objectives

Learning Activities	Learning Objectives
Needs Assessment	 Analyze the community partner's mission and vision Synthesize population profile Organize community partner's areas of need
Program Development	 Develop program goals based on the community partner's mission, vision, and need Develop relevant program curriculum with weekly objectives based on the developed program goals Produce a preliminary budget
Program Implementation	 Administer designed program including organizing necessary supplies
Program Outcomes	 Design a measure to collect outcomes Administer measure and collect outcomes based on the program goals
Share with the Community	 Analyze and organize results based on the collected outcomes Communicate results with community partner including analysis of opportunities for the future

Note: Student learning activities and learning objectives are not conclusive but rather a sample list.

Table 2

OCTH 602 OT Management and Administration Learning Activities and Learning	
Objectives	

Learning Activities	Learning Objectives
Strategic Planning	 Conduct SWOT analysis on respective community group Establish mission and vision statements for group Create group core values Produce goals and timeline
Marketing and Recruiting	 Develop marketing & recruitment materials based on community program Disseminate marketing plan via oral presentation Demonstrate elements of community program to key stakeholders at student-run job fair Recruit 4th year student Leader in Training at student-run "job fair"
Personnel Management	 Apply personnel management principles within group practices Establish job descriptions Establish Leader in Training job description Analyze resumes and applications for 4th year student Leader in Training position Apply and demonstrate personnel management principles to hiring Leader in Training Conduct interviews and select candidate Implement professional workplace communication via written and oral communication to candidates
Billing, Coding, and Documentation	 Explore and understand payer sources in healthcare Apply weekly billing, coding and documentation practices during community program implementation Collect and analyze group's records Apply results to budget and financial forecast
Grant Proposal	 Explore and identify funding sources Synthesize learning activities in grant application

Note: Student learning activities and learning objectives are not conclusive but rather a sample list.

PHASE TWO: EXPANDING STUDENT LEADERSHIP THROUGH THE CSLM

Programs that encourage multi-tier cohorts to allow students to work with a community partner over time promote sustainability and facilitate a scaffolding approach to leadership development (Wagner & Mathison, 2015). This feature of the CSLM integrates a third course to provide leadership opportunities to a subsequent cohort within the same OT program. To illustrate this example, Figure 3 shows the addition of this subsequent cohort as "Leaders in Training," who are OT student volunteers integrated into the community programs. These OT students have the opportunity to experience the community programs first-hand and then serve as a student manager the following year.

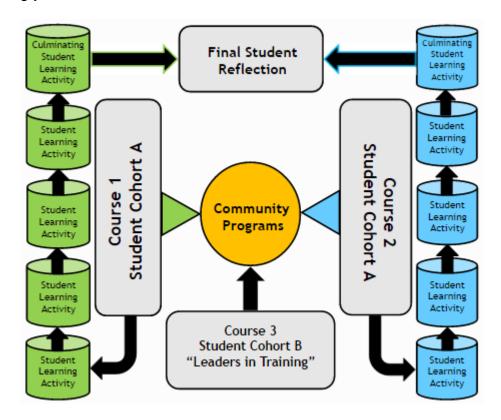


Figure 3. Phase Two of the CSLM: "Leaders in Training" cohort addition. From "Collaborative Structures in a Graduate Program" by R. Otty and L. Milton, 2016, *New Directions for Teaching and Learning*, *148*, pp. 51 – 63. Copyright 2016 by Jossey Bass. Adapted with permission.

As illustrated in Figure 4, program development is underway in OCTH 665 Graduate Seminar. Concurrently with OCTH 602 Management and Administration, students organize and execute a job fair to recruit additional team support, a "Leader in Training", from OCTH 604 Community Practice. Using student-created, original marketing materials and professional interpersonal interactions, students highlight their unique programs to community partners, campus stakeholders, and other cohorts of OT students. The job fair complements the in-class component of the marketing plan unit in OCTH 602 OT Management and Administration and leads directly to the Personnel Management unit by providing students the experience of reviewing resumes, conducting in-person interviews, and finally, hiring a "Leader in Training" recruited at the job fair.

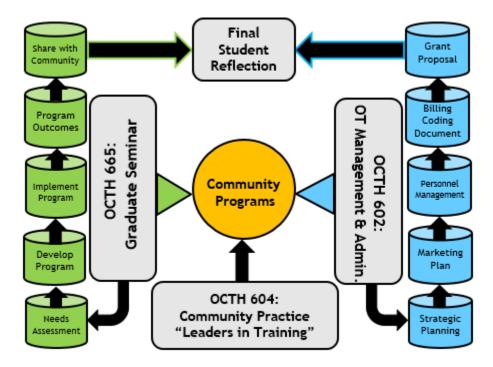


Figure 4. Example Application of Phase Two of the CSLM with the addition of "Leaders in Training." From "Collaborative Structures in a Graduate Program" by R. Otty and L. Milton, 2016, *New Directions for Teaching and Learning*, *148*, pp. 51 – 63. Copyright 2016 by Jossey Bass. Adapted with permission.

PHASE THREE: WORKING SMARTER - THE SCHOLARLY COMPONENT

The third phase of the CSLM, the scholarly component, allows faculty members to conduct research and complete teaching and service roles required in academia (considered by the authors as an added layer that "works smarter, not harder"). The addition of the scholarship piece requires meticulous planning prior to administration of the program to ensure the logistics related to research are completed (i.e., Institutional Review Board submission, agreement of research with community partner, grant funding, etc.). Figure 5 indicates the addition of the scholarly component, which may include examination of the effectiveness of the community program itself, student-learning outcomes based on participation in service learning through the CSLM, and action research-based projects related to CSLM implementation.

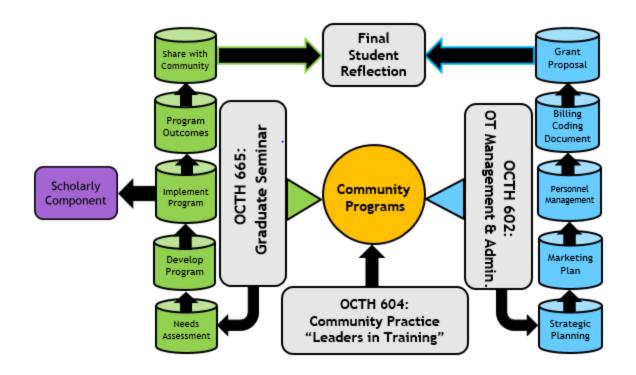


Figure 5. Example Application of Scholarly Opportunity within the CSLM. From "Collaborative Structures in a Graduate Program" by R. Otty and L. Milton, 2016, *New Directions for Teaching and Learning*, *148*, pp. 51 – 63. Copyright 2016 by Jossey Bass. Adapted with permission.

The CSLM provides a real-life experience to consider a community partner's perspective within a structured service learning environment and facilitates within-group leadership and interpersonal skill development. Following initial implementation, students indicated the need to interact and provide feedback to other team members to ensure achievement of expectations. With distributed roles in each group, students felt a sense of accomplishment and developed leadership confidence. This developed self-awareness of leadership skills and confidence was prevalent following implementation of the CSLM. After initial processing of the administrative-related complexities of program development, including mission, values, goals, and design, the students expressed satisfaction with the ability to apply leadership skills. Through the unique dynamic group process embedded within the CSLM, students regularly monitored their group's productivity. In addition, students regularly expressed appreciation to faculty for the allowance to work autonomously and "think outside the box." This developed sense of self, paired with permission and encouragement to take risks using students' own creativity, is an employer-desired trait (Hart Research Associates, 2013).

ASSESSMENT

Using the proposed strategy of assessment by Hansen et al. (2007), the authors recommend various data sources to determine the effectiveness of the CSLM. To understand students' knowledge-level awareness, a survey based on course objectives can be administered, and ongoing journaling using reflections that promote critical thought, such as guided reflection, may be utilized. Using a computer-based pre/post student self-assessment, twenty prompts directly linked to objectives from both courses associated with the CSLM included a 5-point Likert scale and three open-ended questions to understand the student perspective of learning. Examples of survey prompts included "I am able to plan, develop, organize, and market the delivery of services to include the determination of programmatic needs, service delivery options, and formulation and management of staffing for effective service provision" and "I am able to design ongoing processes for quality improvement and develop program changes as needed to ensure quality of services and to direct administrative changes." Additionally, a reflection assignment at the conclusion of the semester included prompts to capture the student voice to inform faculty members as to the need for course improvement. The use of guided reflection required students to take note of novel experiences and contextualize these experiences to elicit relevance and meaning (Hansen et al., 2007). Examples of reflection questions included, "What have you accomplished since the start of this experience?" and "What have you learned from the community program experience that will help you in your OT career?" Students overwhelmingly reported appreciation for "real-life" experiences and the opportunity to synthesize knowledge from both courses in a real-world context. Other less formalized assessment strategies include weekly debriefing meetings to provide consistent, direct feedback to students during the community experience.

DISCUSSION

Based on the repeated administration of the CSLM over several years, success should not be determined based on a one-time trial of model implementation. Preparation is required for productive application and routine evaluation of student experiences to continuously improve the implementation of the CSLM. This model can be modified and integrated according to faculty comfort level. For example, a faculty member can begin the CSLM within a single course to initiate a relationship with a community partner, reminiscent of the PMSL (Flinders et al., 2013), and to develop initial student learning activities. The following year, the faculty member can refine learning activities and consider the inclusion of another student learning activity from a separate course. With this level of preparation and incremental inclusion of key concepts of the CSLM, the faculty member can successfully apply the model according to his/her comfort level.

When considering the inclusion of the second course, a faculty member should carefully consider not only his/her own temperament, but also that of the other faculty member in consideration. This step is necessary to ensure a successful partnership. The application of the CSLM requires faculty members to work in cooperation with one another; thus, an open line of communication is crucial. Faculty members with common traits, including a willingness to take risks and relinquish control to students, will effectively respond to the needed actions to prepare, plan, and organize before the

courses launch. Possessing a like mindset among all the CSLM faculty allows for collaborative and interactive student learning activities. Lastly, it is vital to carve out routine and consistent "touch-base" meetings between the faculty members to plan, act on the timeline, and continually address issues during the implementation of the community programs.

With a collaborative faculty partnership, the implementation of several practical planning strategies is essential. One such plan includes the development of a timeline that allows for various factors, whether expected or unexpected, including budget proposals, or a decline or cancellation by a community partner. Faculty members should allow time to contact area organizations and complete community partnership agreements at least two months prior to the launch of the courses. Despite the front-end preparation required, faculty will spend more time during the semester mentoring and guiding while students actively "do the work."

Another beneficial piece of the plan is a joint presentation of the CSLM on the first day or first week of class in order to explain the "lay of the land" for the semester and to provide rationale for the design of both courses. In addition to this initial orientation with students, learning activity expectations and rubrics provided to students at the start of the semester increase understanding of how to fulfill roles and tasks associated with the development, implementation, evaluation, and dissemination of a community program. Delegation by designated student managers and full, active participation among all group members are keys to successful course completion. Up-front knowledge of expectations, assignments, and due dates allow students to be "in the know" from day one. With this knowledge, student managers and team members organize the multiple moving parts of the program without direct faculty awareness. Each student group works at its own pace with mere guidance from faculty as needed. Therefore, written expectations in the form of assignment sheets and grading rubrics provided at the start of the semester allow student groups to easily transition from task to task throughout the semester.

Implications for Occupational Therapy Education

The CSLM represents the culmination of a cooperative learning environment between two different courses with a centralized service learning experience. Faculty members can utilize this innovative course design framework to provide meaning and engagement to students during service learning projects while simultaneously meeting service, scholarship, and teaching obligations. With student engagement and active involvement central to the process, the CSLM creates a supportive structure for student-faculty collaboration. Finally, the CSLM furthers the educational experience beyond the confines of campus life. Through the opportunity to develop creative responses to presented problems and analyze changing situations, the CSLM presents invaluable experiences that students can apply to future practice.

References

- Adam, K., Peters, S., & Chipchase, L. (2013). Knowledge, skills and professional behaviours required by occupational therapist and physiotherapist beginning practitioners in work-related practice: A systematic review. *Australian Occupational Therapy Journal*, 60(2), 76-84. <u>https://doi.org/10.1111/1440-1630.12006</u>
- Bowen, G., Burton, C., Cooper, C., Cruz, L., McFadden, A., Reich, C., & Wargo, M. (2011). Listening to the voices of today's undergraduates: Implications for teaching and learning. *Journal of the Scholarship of Teaching & Learning*, *11*(3), 21-33.
- Darby, A., & Newman, G. (2014). Exploring faculty members' motivation and persistence in academic service learning pedagogy. *Journal of Higher Education Outreach and Engagement, 18*(2), 91-120.
- DePaola, T. (2014). Collaborating for social justice through service learning. *New* Directions for Community Colleges, 165, 37-47. <u>https://doi.org/10.1002/cc.20089</u>
- Doyle, T. (2011). *Learner-centered teaching: Putting the research on learning into practice.* Sterling, Virginia: Stylus Publishing.
- Flinders, B.A., Nicholson, L., Carlascio, A., & Gilb, K. (2013). The Partnership Model for Service learning programs: A step-by-step approach. *American Journal of Health Sciences, 4*(2), 67-77. <u>https://doi.org/10.19030/ajhs.v4i2.7760</u>
- Gelmon, S.B., Jordan, C. & Seifer, S.D. (2013). Community-engaged scholarship in the academy: An action agenda. *Change*, *45*(4), 58 66. https://doi.org/10.1080/00091383.2013.806202
- Hansen, A.W., Munoz, J., Crist, P.A., Gupta, J., Ideishi, R.I., Primeau, L.A., & Tupe, D. (2007). Service learning: Meaningful, community-centered professional skill development for occupational therapy students. *Occupational Therapy in Health Care, 21*(1/2), 25-49. <u>https://doi.org/10.1300/J003v21n0103</u>
- Hart Research Associates. (2013). It takes more than a major: Employer priorities for college learning and student success. *Liberal Education*, 99(2), 22-29.
- Johnson, S.W. (2014). Healthcare learning community and student retention. *Insight: A Journal of Scholarly Teaching, 9,* 28-35.
- Kalles, S. & Ryan, T.G. (2015). Service learning: Promise and possibility in postsecondary education. *International Journal of Progressive Education, 11*(1), 132-148.
- Kruger, S.B., Nel, M.M., & van Zyl, G.J. (2015). Implementing and managing community-based education and service learning in undergraduate health sciences programmes: Students' perspectives. *African Journal of Health Professions Education*, 7(2), 161-164. <u>https://doi.org/10.7196/AJHPE.333</u>
- McDonald, J., & Dominguez, L.A. (2015). Developing university and community partnerships: A critical piece of successful service learning. *Journal of College Science Teaching*, *44*(3), 52-56. <u>https://doi.org/10.2505/4/jcst15_044_03_52</u>
- Otty, R., & Milton, L. (2016). Collaborative structures in a graduate program. In J.
 Bernstein & B. Flinders (Eds.), *New Directions for Teaching and Learning* (pp. 51 63). San Francisco, CA: Jossey Bass. <u>https://doi.org/10.1002/tl.20209</u>
- Pollard, B.L., & McClam, T. (2014). Beyond the classroom: Service learning in human service education. *Journal of Human Services*, *34*(1), 153-157.

- Pope-Ruark, R., Ransbury, P., Brady, M., & Fishman, R. (2014). Student and faculty perspectives on motivation to collaborate in a service-learning course. *Business and Professional Communication Quarterly*, 77(2): 129-149. https://doi.org/10.1177/2329490614530463
- Sabo, S., de Zapien, J., Teufel-Shone, N., Rosales, C., Bergsma, L. & Taren, D. (2015). Service learning: A vehicle for building health equity and eliminating health disparities. *American Journal of Public Health, 105*(S1), S38-S43. https://doi.org/10.2105/AJPH.2014.30236
- Simonian, W.Z., Brame, J.L., Hunt, L.C., & Wilder, R.S. (2015). Practicum experiences: Effects on clinical self-confidence of senior dental hygiene students. *Journal of Dental Hygiene, 89*(3), 152-161.
- Stenhouse, V.L., & Jarrett, O.S. (2012). In the service of learning: Service learning, critical pedagogy, and the problem solution project. *Teacher Education Quarterly, 39*(1), 51-76.
- Tinkler, B., hannah, c., Tinkler, A., & Miller, E. (2015). The impact of a social justice service learning field experience in a social foundations course. *Teaching Education*, *6*(1), 16-29.
- Wagner, W. & Mathison, P. (2015). Connecting to communities: Powerful pedagogies for leading for social change. *New Directions for Student Leadership, 145*, 85-86. <u>https://doi.org/10.1002/yd.20126</u>
- Yorio, P. L., & Ye, F. (2012). A meta-analysis on the effects of service learning on the social, personal, and cognitive outcomes of learning. Academy of Management Learning & Education, 11(1), 9-27. <u>https://doi.org/10.5465/amle.2010.0072</u>