



The Open Journal of Occupational Therapy

Volume 1
Issue 4 Summer 2013

Article 5

August 2013

Therapists as Educators: the Importance of Client Education in Occupational Therapy

Kate E. DeCleene
University of Indianapolis - USA, kedhuber@gmail.com

Angelia J. Ridgway
University of Indianapolis - USA, aridgway@uindy.edu

Julie Bednarski
University of Indianapolis - USA, jbednarski@uindy.edu

Lori Breeden
University of Indianapolis - USA, breedenl@uindy.edu

Gina Gabriele Mosier
University of Indianapolis - USA, romanog@uindy.edu

See next page for additional authors

Follow this and additional works at: <https://scholarworks.wmich.edu/ojot>

 Part of the Occupational Therapy Commons

Recommended Citation

DeCleene, K. E., Ridgway, A. J., Bednarski, J., Breeden, L., Mosier, G. G., Sachs, D., & Stephenson, D. (2013). Therapists as Educators: the Importance of Client Education in Occupational Therapy. *The Open Journal of Occupational Therapy*, 1(4). <https://doi.org/10.15453/2168-6408.1050>

This document has been accepted for inclusion in The Open Journal of Occupational Therapy by the editors. Free, open access is provided by ScholarWorks at WMU. For more information, please contact wmu-scholarworks@wmich.edu.

Therapists as Educators: the Importance of Client Education in Occupational Therapy

Abstract

Client education is a major component of everyday health care practice. Entry-level occupational therapy (OT) accreditation standards require educators to teach students how to demonstrate the ability to educate clients, family, caregivers, and significant others to facilitate their skills related to personal occupations. Although these standards are a necessity, entry-level programs are not required to teach students the teaching methodologies that support human learning. However, the educational standards do require students to apply the principles of teaching and learning processes. This project explored the evidence in teaching and learning strategies and how these were introduced to OT students during their program. Faculty from the School of Occupational Therapy and School of Education developed a module for entry-level OT students. Data analysis found that students were able to benefit from the additional information on teaching and learning theory.

Keywords

Client Education, Educational Training, Teaching-Learning

Cover Page Footnote

The authors would like to recognize and thank the University of Indianapolis for funding this interdisciplinary project. In addition, gratitude is extended to the students and Community Patient Resource Group (CPRG) members who participated.

Complete Author List

Kate E. DeCleene, Angelia J. Ridgway, Julie Bednarski, Lori Breeden, Gina Gabriele Mosier, Deborah Sachs, and Donna Stephenson

Credentials Display and Country

Kate E. DeCleene, OTD, MS, OTRL; Angelia J. Ridgway, Ph.D.; Julie Bednarski, OTD, MHS, OTR, Lori Breeden, MS, OTR; Gina Gabriele Mosier, MA; Deborah Sachs, MS; Donna Stephenson, MA

Copyright transfer agreements are not obtained by The Open Journal of Occupational Therapy (OJOT). Reprint permission for this Topics in Education should be obtained from the corresponding author(s). Click here to view our open access statement regarding user rights and distribution of this Topics in Education.

DOI: 10.15453/2168-6408.1050

Client education is a major component of everyday health care practice (Redman, 1997; Stonecypher, 2009). This education is delivered to a variety of audiences, in many different situations, and in many different forms (Williams, 2008). Entry-level occupational therapy (OT) accreditation standards require educators to teach students how to educate clients, family, caregivers, and significant others to facilitate their skills related to personal occupations (Accreditation Council Occupational Therapy Education [ACOTE], 2011). ACOTE standards for a Master's degree candidate that are specific in ensuring students are competent in client education and have the ability to apply teaching-learning principles include:

B.5.18. Demonstrate an understanding of health literacy and the ability to educate and train the client, caregiver, family and significant others, and communities to facilitate skills in areas of occupation as well as prevention, health maintenance, health promotion, and safety.

B.5.19. Apply the principles of the teaching-learning process using educational methods to design experiences to address the needs of the client, family, significant others, colleagues, other health providers, and the public. (ACOTE, 2011, p. 26)

Although these standards are a necessity, ACOTE does not require entry-level programs to instruct students in the teaching methodologies that support human learning. However, the educational standards do require students to apply the principles

of teaching and learning processes. Olson (2007) states that based on these ACOTE standards, educators need to develop and design course content to ensure that students are able to transition into practice and meet the challenges facing the profession. As the profession of OT focuses on community-based practice, strategies to educate clients need to be developed more extensively than the current training model typically used in the medical model of practice.

Theories of adult education should be the foundation of client education (Stonecypher, 2009; Williams, 2008). Preparing students to educate clients with knowledge of culturally-mediated instruction (Nieto, 1996) and learning theory (Wolfe, 2001) would extend the teaching knowledge base of new practitioners. Understanding how to plan effectively and deliver client education is key to positive health care outcomes (Stonecypher, 2009). Thus, occupational therapists need to understand a client's educational perspective in order to collaborate successfully with them throughout the intervention process. (DeAngelis, 2000).

A gap exists in terms of evidence in teaching and learning strategies and how these strategies are introduced to OT students during their programs. The University of Indianapolis' School of Occupational Therapy (SOT) and the Department of Teacher Education within the School of Education (SOE) collaborated to facilitate the synthesis of educational theory and OT training. The goal of this collaboration was to increase the success of

students in their abilities to provide client education in the clinical setting as well as in emerging practice settings within OT. This type of teaming with the SOE will encourage understanding of pedagogies of engagement for the classroom and, in turn, for implementation in clinical settings.

Literature Review

Educational strategies that are developed in entry-level OT practitioners are typically focused on individual teaching and learning. Changes in health care and a growing focus on wellness programs and community-based practice are challenging occupational therapists to utilize educational strategies for larger groups outside of traditional practice areas. In nontraditional practice areas, an occupational therapist needs to understand a variety of learning theories and educational strategies that can facilitate group instruction with a learner-centered focus. These include: (a) Vygotsky's zone of proximal development, (b) research from OT and educational materials, (c) adult learning theories, and (d) educational theory in OT.

Vygotsky Zone of Proximal Development

Vygotsky's zone of proximal development represents the gap between a learner's independent performance of the task and the dependence on others to perform the task on his or her behalf (Chaiklin, 2003). This educational model is well known to occupational therapists as it provides the foundation for the concept of the "just right challenge" that is used to appropriately challenge clients toward the next achievable level of functioning. While practicing occupational

therapists understand the value of engaging their clients in experiential learning, very little OT research has examined learner-centered educational strategies as compared to direct instruction and how to prepare future OT practitioners to deliver effective client-centered education.

OT and Educational Materials

Much of the literature related to health education focuses on the level of reading difficulty found within patient educational materials. Often, when OT practitioners are asked to consider their patient education practices, they focus on the quality of patient handouts or on the way in which they deliver these educational materials. Lawler, James, and Tomlin (1997) examined strategies for educating patients with cumulative trauma disorders (CTDs) of the elbow, wrist, and hand. The purpose of the study was "to describe both the methods (i.e., media, format) and the content of patient education that occupational therapists use when treating patients with CTDs of the elbow, wrist, and hand" (Lawler et al., 1997, p. 114). The most frequently reported media were verbal instructions, illustrations, and pamphlets or handouts. The most common format was individual education as opposed to group education.

In addition to Lawler et al. (1997), Sharry, McKenna, and Tooth (2002) examined the type of information that therapists offer. Sharry et al. surveyed occupational therapists in Queensland, Australia, about their client education and found that they often used verbal and written materials together to educate their clients, and that most of the

occupational therapists produced their own materials. Despite producing their own materials, these therapist participants were less positive about the materials that were provided to older clients. These researchers recognize the need for a standardized tool to evaluate written educational materials. Clinicians who provide individual services understand the importance of quality patient education, yet the demands of productivity challenge individualized treatment. To improve the efficiency of service delivery, a quality educational handout is commonly thought of as a way to improve compliance. Yet these practitioners' limited exposure to learner-centered educational theories limits their ability to determine what makes an effective handout. Further, these studies provide little understanding on how a client best receives, processes, and makes use of the information.

Adult Learning Theories

Learning via narrative is an integral part of adult learning theory; Lindeman (1989/1926) states, "Adult education is a process through which learners become aware of significant experience. Recognition of significance leads to evaluation. Meanings accompany experience when we know what is happening and what importance the event includes for our personalities" (p. 109). Through the process of organizing our thoughts and crafting the story of our experience, we evaluate the process and assign meaning.

To help understand why narrative learning is effective, Clark and Rossiter (2008) state that this type of learning "falls under the larger category of

constructivist learning theory, which understands learning as construction of meaning from experience. The fundamental principles of narrative underlie this type of learning because the meaning construction is done narratively" (p. 63). This learning occurs because of the processes that individuals must go through to organize their thinking, highlight the relevant points of the experience, and organize those relevant themes into a narrative. This process helps both to solidify the experience in the clients' minds and to mentally construct a perspective of the event that creates the meaning. As clinicians listen to individuals tell their stories, they witness learning in real time. Occupational therapists take part in the refinement of the reasoning, the creation of the meaning, and the processing that happens within those who tell of their experiences.

Educational Theory in OT

The literature regarding teaching and learning theory in higher education is abundant, and OT educators use these teaching strategies as they educate their students. However, there is little information about how occupational therapists, in turn, use these same teaching and learning theories to later deliver effective client education in a way that can enhance client outcomes.

Greber, Ziviani, and Rodger (2007) wrote a series of articles describing the development of the Four-Quadrant Model (4QM) of facilitated learning and later (2011) completed a mixed-methods study to examine the utilization of this model in practice. The initial study (Greber et al., 2007) began as an

action research project by the authors within their school system practice as they used a “cyclical self-reflective spiral” to design an educational model that would promote active learning in their school-aged clients (150). From this initial study the authors developed the 4QM theoretical structure.

Greber, Ziviani, and Rodger (2011) used a mixed-methods study to gain the perspective of two groups of experienced therapists using a prediscussion questionnaire, two focus groups, and a postdiscussion questionnaire to examine their use of the 4QM education model. The results of their study indicate that clinicians often rely on an intuitive sense of how well their clients utilized educational experiences. This research gives evidence to the idea that OT faculty could more effectively support client education by providing future OT practitioners with learner-centered strategies that could transition to their own practice.

Although the literature reports the use of handouts, the introduction of the 4QM theoretical structure and the analysis of therapists’ intuitive sense, the effectiveness of these factors and their impacts on clients’ learning has not been supported. Intentionality related to the introduction of the information processing view of learning can provide future therapists with the knowledge of evidence-based practices related to how and why clients learn best. Mayer (2010) has studied connections between the science of learning and information processing, and their importance to improving medical education. He writes, “understanding how learning works is an important first step in medical

education because instructional methods should be consistent with what we know about the human information-processing system” (p. 545). This study attempts to examine the introduction and application of this knowledge base to future therapists and their ability to improve client learning. The connection between knowledge of learning theory and how it applies to client education was addressed through a Master’s of Occupational Therapy (MOT) course where students were trained in client education, learning theory, and client-centered strategies in an effort to meet the learning needs of their clients more effectively.

Methodology

This study utilized a mixed-method design that collected and analyzed both quantitative and qualitative data from OT students enrolled in the Lifestyle for Wellness course, which incorporated a client education session presented by faculty from the University of Indianapolis’s SOE. Researchers obtained quantitative data through a Likert-scale instrument called the Future Therapists Survey, and collected qualitative data from open-ended items on a questionnaire. The protocol was submitted to the university Institutional Review Board (IRB), which determined the protocol exempt since the study was conducted primarily for programmatic purposes.

Data Collection

The population consisted of fifty-three second-year MOT students at the University of Indianapolis enrolled in the OT course Lifestyle for Wellness. At that point in the curriculum, the

students have completed foundational courses and are incorporating health education into community dwelling practices. Additionally, students are preparing for level II fieldwork experiences. The Lifestyle for Wellness course was taught in two sections, each of which received the same educational content and delivery method. This enabled data collection for each group: Group A (n = 27) and Group B (n = 26).

Quantitative collection. Students were given the Future Therapists Survey at the beginning of the Lifestyle for Wellness course to establish a baseline measure of their experience with client education. The response rate for the baseline survey was 96.2% (51/53). Next, students participated in a classroom session lead by SOE faculty titled *Designing Engaging Lessons for Clients*. The session introduced students to the information-processing model of cognitive development (Atkinson & Shiffrin, 1968). This model teaches therapists to do the following: (a) gather client background information, (b) elaborate and rehearse new knowledge, and (c) assess new knowledge for client mastery of concepts. Teacher Education faculty also introduced a variety of engagement strategies so that OT students could effectively meet their clients' learning needs.

Following this session, students worked one-on-one with individuals in the community, designing client-centered wellness programs that used strategies taught in the course. After this experience, at the end of the course (1 month), students were administered a follow-up version of

the Future Therapists Survey. The response rate for the follow-up survey was 92.5% (49/53).

Qualitative collection. After the Lifestyle for Wellness course, students participated in a three-week level I fieldwork placement that enabled them to integrate information learned in the classroom into the clinical setting. The fieldwork required students to utilize clinical reasoning skills to apply knowledge learned in the classroom to clients receiving OT services in the clinical setting. At the end of the placement, students answered a qualitative questionnaire with writing prompts that asked students to describe how they planned instructional strategies, engaged clients' prior knowledge, helped clients master therapeutic goals, and developed relationships to promote learning opportunities.

Instrument

The Future Therapists Survey was organized with questions related to engagement and implementation of learning strategies based on the Indiana Department of Education's Teacher Effectiveness Rubric (RISE), version 1.0, 2010 (Indiana Department of Education, 2010). Using a four-point Likert scale, participants reported their level of agreement from "strongly disagree" to "strongly agree." The survey was administered in a paper-based format (see Appendix) at the beginning and end of the course. The entire instrument was reliable, with a Cronbach alpha of 0.843. A Cronbach's alpha of .70 or greater is considered a reliable measure in social science research.

The qualitative questionnaire included narrative open-ended sentence stems, which were adapted from RISE (IDOE, 2011). The stems included the following: (a) “Describe the variety of planning you create in order to offer a variety of instructional strategies for your clients,” (b) “Describe how you effectively engage the prior knowledge and experiences of your clients in order to connect them to your therapy session,” (c) “Describe the multiple ways in which you engage clients in content in order to promote their mastery of your therapeutic goals,” and (d) “Describe how you strive to develop relationships with clients and their significant others in order to amplify opportunities for their learning into the clinical setting.” Researchers obtained this qualitative data to assess the students’ integration of client education strategies learned in the classroom (see Appendix).

Analysis

Researchers used SPSS Statistics, version 18, for analysis of quantitative data from the Future Therapists Survey. A paired t-test was computed to explore mean differences between pre and postsurvey responses. A two-sample independent t-test showed no statistically significant differences for any of the questions between Group A (n = 27) and Group B (n = 26). This finding provides evidence that seminars were taught consistently for both groups. Therefore, scores for Group A and Group B were analyzed together (n = 53).

For analysis of qualitative data, researchers used NVIVO 9 to investigate how students had

applied teaching-learning strategies when educating clients during their level I fieldwork experience. Using the constant comparative method (Glaser & Strauss, 1967), wherein data was coded and one data set compared against another, researchers organized these responses to look for evidence of the following: (a) types of planning and approaches used to ensure positive client educational carryover, (b) engaging clients through the four-step teaching-learning process, and (c) ways of facilitating client relationships. Member checking was completed after final coding and theme identification. A voluntary focus group of participants was conducted after completion of level II fieldwork experiences. Participants confirmed qualitative results.

Findings

Future Therapists Survey

The paired t-statistic was found to be statistically significant for all of the statements ($p < 0.05$) so that these changes were not due to chance (Table 1). Further, students rated statistically significantly higher levels of agreement in the postsurvey statements, showing that students felt the program benefitted them. The most substantial improvements between pre and postsurvey results occurred for Statement 1, followed by Statement 3, then Statement 2, which had the largest mean differences and greatest t-scores.

Table 1

Mean Differences between Pre and Postsurvey Responses (N = 53)

	Pre Post	t-score
I can explain the information processing model.	1.38	15.36*
Based on the information processing model, I know why it is important to get clients to actively engage with the concepts and content of a therapy session.	1.22	9.25*
Based on the information processing model, I know why it is important to get clients to rehearse and elaborate on the concepts and content of a therapy session.	1.28	10.01*
I know a variety of strategies that can be used to engage the prior knowledge and experiences of my clients at the beginning of a therapy session.	0.38	3.86*
I know a variety of strategies that can be used to actively engage clients with the concepts and content of a therapy session.	0.46	5.04*
I know a variety of strategies that can be used to actively engage clients in the rehearsal and elaboration of concepts and content from a therapy session.	0.53	5.73*
I know a variety of strategies that can be used to assess client learning at the end of a therapy session.	0.35	5.05*
I can incorporate into my therapy sessions a variety of strategies that engage the prior knowledge and experiences of my clients at the beginning of the session.	0.53	5.46*
I can incorporate into my therapy sessions a variety of strategies that actively engage clients with the concepts and content during the session.	0.43	5.20*
I can incorporate into my therapy sessions a variety of strategies that actively engage clients in rehearsing and elaborating on the concepts and content during the session.	0.55	6.66*
I can incorporate into my therapy sessions a variety of strategies to assess client learning during the session.	0.45	5.12*

Note. Responses were coded as: 0 = Strongly agree, 1 = Agree, 2 = Disagree, 3 = Strongly disagree.

*= $p \leq .05$, two-tailed

Figure 1 gives a visualization of improvement between pre and postsurveys, showing that the largest differences occurred for Statements 1, 2, and 3, which were centered around explaining

the information, engaging clients in the concepts, and prompting the clients to rehearse and elaborate on the concepts of the therapy session.

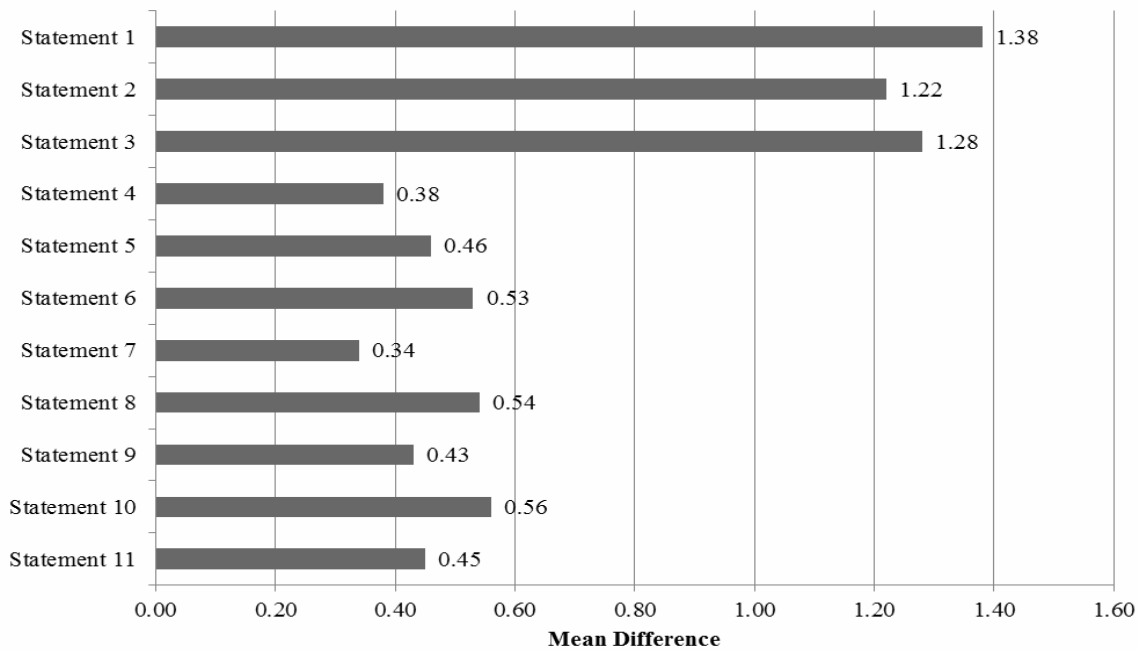


Figure 1. Mean difference between pre and post-surveys (N = 53)

Qualitative Questionnaire

Four major categories emerged that indicated students' transfer from classroom preparation with the information-processing view of learning to the clinical setting: (a) relationship development, (b) means of engagement, (c) prior knowledge and experiences, and (d) variety of planning and strategies.

Relationship development. Analysis of the first category, relationship development, indicated students facilitated relationships with their clients by active listening, building trust, using effective communication, and developing rapport with their clients. Student 1 commented, "communicating with both the kids and their parents allows for them to feel more comfortable with you leading to better communication channels." Student 2 wrote, "the

more respect and trust that is built will amplify the opportunities for the client's learning."

Means of engagement. After completion of their fieldwork experiences, students identified ways to utilize the four-step teaching-learning process taught to them in class, which included anticipating learning, engaging with concepts and content, rehearsing and elaborating, and assessing for learning. Students were able to identify how they, or their fieldwork educators, used the four-step teaching-learning process when educating clients in the clinic. Positive transfer related to building client knowledge occurred as future therapists moved to the clinical setting. Students demonstrated integration and understanding of the importance of using a variety of teaching strategies to improve client education.

Student 3 demonstrated anticipating learning by stating that one should, “relate it to an activity or something that motivates them [the client] or something they are interested in.” Evidence for means of engagement by rehearsing and elaborating was reported by Student 4, who suggests “having them [the client] rehearse or role play appropriate scenarios.” Examples of how two students had clients engage with concepts and content include having a client “create a list, demonstrate, then have them [the client] demonstrate & teach you” (Student 5) and “read out loud, summarize, find main points as a group” (Student 6). Students assessed client learning by asking them to “tell me 3 things you learned in our session; 1 minute summary” (Student 7) and to “recall highlights” (Student 5).

Prior knowledge and experiences.

Specifically, the students indicated that asking questions to engage prior knowledge was an effective strategy for learning about where client education should begin. Student 8 commented, “by completing an occupational profile with my client, I am able to gain knowledge about his/her experiences, interests, and values.”

Variety of planning and instructional strategies. When students responded to questions about the types of planning and approaches utilized to ensure positive client educational carryover, four themes emerged: visual modalities; auditory modalities; kinesthetic modalities; and use of a combination of auditory, kinesthetic, and visual modalities. First, students saw the value in

presenting information via the visual modality. Student 9 stated, “[I] had clients read/review HEP [home exercise program] through pictures & text & then I demonstrated exercises.” Another comment related to visual modality was, “have your client read material on the topic and identify something they previously knew and something new they learned” (Student 3). Second, students saw how some clients’ needs were effectively met with auditory strategies. Student 10 commented, “I inform clients of the information, have them summarize, ask if they have questions, and then I summarize main points.” Third, students saw value in kinesthetic modalities. Students showed they recognized the effectiveness of kinesthetic strategies with comments such as, “demonstrated exercises; had client perform exercise” (Student 9), “learn by doing” (Student 11), and “usually I would give client hand over hand assistance” (Student 12). The final major category that emerged from students’ application of information processing perspective while in the clinical settings was that of implementing a variety of strategies in both the planning and teaching used in client education. General comments related to the effectiveness of implementing a variety of strategies included: “The client’s preferred method of learning must be considered during planning” (Student 4) and “it is our job to adapt our teaching style to the needs of our clients” (Student 11).

Discussion

Students rated significantly higher levels of agreement in the postsurvey questions, showing that

students felt they benefitted from the program, especially in the area of explaining the information, engaging clients in the concepts, and prompting the clients to rehearse and elaborate on the concepts of the therapy session. Similarly, in the qualitative questionnaire, students were able to elaborate on how they actively engaged clients or would engage clients in order to master the therapeutic constructs.

When asked to reflect on their ability to educate clients, students stated that they used a variety of teaching strategies, indicating carryover of information taught by education faculty. Students were also able to state ways that anticipating learning, assessing learning, rehearsing and elaborating, and engaging with concepts and content can be utilized to improve occupational performance, all elements included in the intentional introduction of the information processing view of learning (Atkinson & Shiffrin, 1968). Students' identification of these themes as means of client engagement went beyond previous research, which found that frequently reported use of client education included verbal instruction (Lawler et al., 1997) and verbal and written instruction (Sharry et al., 2002). Therefore, the study shows that the intentional introduction of elements of learning theory can impact the ways in which future therapists approach client education. The collaboration between the knowledge bases and instructional activities of the SOT and SOE faculty improved future therapists' abilities to engage clients.

Limitations

There were several limitations of this study. First, the sample size was small and only representative of one MOT program at a private Midwestern university, which limits the ability to generalize the findings to other OT programs. Second, the study used only one educational session to teach the OT students the information processing model and related modalities. Thus, students might not have effectively learned all of the details associated with client education, since these topics were taught and modeled over just one, extended class session.

Conclusion and Implications

Collaboration with faculty from the SOE enabled MOT students to implement creative strategies for client education and understand the important role education has in improving occupational performance and client outcomes. These results will be used when considering decisions about formatting the Lifestyle for Wellness course, as well as adding content and activities to other OT courses. Collaboration continues between the SOE and OT faculty members to create more multidisciplinary projects. Further research can look at future cohorts of students taking this course to understand if they perceive the same benefit from the presentation of the information-processing model and engagement strategies. Furthermore, plans are in place to include these aspects as an integral part of their MOT curriculum.

References

- ACOTE. (2011). Accreditation Council for Occupational Therapy Education standards and interpretative guidelines. Retrieved from <http://www.aota.org/Educate/Accredit/Draft-Standards/50146.aspx?FT=.pdf>
- Atkinson, R. C., & Shiffrin, R. M. (1968). Human memory: A proposed system and its control processes. In K. W. Spence & J. T. Spence (Eds.), *The psychology of learning and motivation* (Vol. 2) (pp. 89–195). New York, NY: Academic Press.
- Chaiklin, S. (2003). The zone of proximal development in Vygotsky's analysis of learning and instruction. In A. Kozulin, B. Gindis, V. S. Ageyev, & S. M. Miller (Eds.), *Vygotsky's educational theory and practice in cultural context* (pp. 39-64). Cambridge: Cambridge University Press.
- Clark, M. C., & Rossiter, M. (2008). Narrative learning in adulthood. *New Directions for Adult and Continuing Education*, 119, 61-70.
- DeAngelis, T. M. (2000). Adult learning: Keys for success. *OT Practice*, 5(3), 20-23.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine.
- Greber, C., Ziviani, J., & Rodger, S. (2007). The four quadrant model of facilitated learning: A clinically based action research project. *Australian Occupational Therapy Journal*, 54(2), 149-152.
- Greber, C., Ziviani, J., & Rodger, S. (2011). Clinical utility of the four-quadrant model of facilitated learning: Perspectives of experienced occupational therapists. *Australian Occupational Therapy Journal*, 58, 187-194. Doi: 10.1111/j.1440-1630.2010.00901.x
- Indiana Department of Education (2010). Indiana Teacher Effectiveness Rubric: 2011-12. Retrieved from <http://www.riseindiana.org/sites/default/files/files/Rubric%208%20by%2011%20Website.pdf>
- Lawler, A. L., James, A. B., & Tomlin, G. (1997). Educational techniques used in occupational therapy treatment of cumulative trauma disorders of the elbow, wrist, and hand. *American Journal of Occupational Therapy*, 51(2), 113-118.
- Lindeman, E. C. (1989). *The meaning of adult education*. Oklahoma Research Center for Continuing Professional and Higher Education. (Original work published in 1926).

- Mayer, R. (2010). Applying the science of learning to medical education. *Medical Education*, 44, 543-549.
- Nieto, S. (1996). *Affirming diversity: The sociopolitical context of multicultural education* (2nd ed.). White Plains, NY: Longman.
- Olson, J. (2007). How does ACOTE help educators support the AOTA vision. *Occupational Therapy in Health Care*, 21(4), 301-303.
- Redman, B. (1997). *The practice of patient education* (8th ed.). St. Louis, MO: Mosby.
- Schemm, R. L., & Gitlin, L. N. (1998). How occupational therapists teach older patients to use bathing and dressing devices in rehabilitation. *American Journal of Occupational Therapy*, 52(4), 276-282.
- Sharry, R., McKenna, K., & Tooth, L. (2002). Brief Report—Occupational therapists' use and perceptions of written client education materials. *American Journal of Occupational Therapy*, 56(5), 573-576.
- Stonecypher, K. (2009). Creating a patient education tool. *Journal of Continuing Education in Nursing*, 40(10), 462-467.
- Williams, S. (2008). The role of patient education in the rehabilitation of people with spinal cord injuries. *International Journal of Therapy & Rehabilitation*, 15(4), 174-179.
- Wolfe, P. (2001). *Brain matters: Translating research into classroom practice*. Alexandria, VA: Association for Supervision & Curriculum Development.

Appendix: Instrumentation

Instrument 1: Future Therapists Baseline Survey

Participant #: _____

Date: _____

**Development and Implementation of Interdisciplinary Pedagogical Opportunities for
Occupational Therapy Professional Level Educators and Students**

Future Therapists Pre-Survey

For each statement below, circle the response that best represents how you feel about the statement.

1. I can **explain** the information processing model.

Strongly agree

Agree

Disagree

Strongly disagree

2. Based on the information pressing model, I **know why it is important** to get clients to actively **engage with the concepts and content** of a therapy session.

Strongly agree

Agree

Disagree

Strongly disagree

3. Based on the information processing model, I **know why it is important** to get clients to **rehearse and elaborate** on the concepts and content of a therapy session.

Strongly agree Agree Disagree Strongly disagree

4. I **know** a variety of **strategies that can be used to engage the prior knowledge and experiences** of my clients at the beginning of a therapy session.

Strongly agree Agree Disagree Strongly disagree

5. I **know** a variety of **strategies that can be used to actively engage clients with the concepts and content** of a therapy session.

Strongly agree Agree Disagree Strongly disagree

6. I **know** a variety of **strategies that can be used to actively engage clients in the rehearsal and elaboration** of concepts and content from a therapy session.

Strongly agree Agree Disagree Strongly disagree

7. I **know** a variety of **strategies that can be used to assess client learning** at the end of a therapy session.

Strongly agree Agree Disagree Strongly disagree

8. I can **incorporate** into my therapy sessions a variety of **strategies that engage the prior knowledge and experiences** of my clients at the beginning of the session.

Strongly agree Agree Disagree Strongly disagree

9. I can **incorporate** into my therapy sessions a variety of **strategies that actively engage clients with the concepts and content** during the session.

Strongly agree Agree Disagree Strongly disagree

10. I can **incorporate** into my therapy sessions a variety of **strategies that actively engage clients in rehearsing and elaborating** on the concepts and content during the session.

Strongly agree Agree Disagree Strongly disagree

11. I can **incorporate** into my therapy sessions a variety of **strategies to assess client learning** during the session.

Strongly agree Agree Disagree Strongly disagree

Instrument 2: Future Therapists Post-Survey

Participant #: _____

Date: _____

Development and Implementation of Interdisciplinary Pedagogical Opportunities for Occupational Therapy Professional Level Educators and Students

Future Therapists Post-Survey

For each statement below, circle the response that best represents how you feel about the statement.

1. I can **explain** the information processing model.

Strongly agree Agree Disagree Strongly disagree

2. Based on the information pressing model, I **know why it is important** to get clients to actively **engage with the concepts and content** of a therapy session.

Strongly agree Agree Disagree Strongly disagree

3. Based on the information processing model, I **know why it is important** to get clients to **rehearse and elaborate** on the concepts and content of a therapy session.

Strongly agree Agree Disagree Strongly disagree

4. I **know** a variety of **strategies that can be used to engage the prior knowledge and experiences** of my clients at the beginning of a therapy session.

Strongly agree Agree Disagree Strongly disagree

5. I **know** a variety of **strategies that can be used to actively engage clients with the concepts and content** of a therapy session.

Strongly agree Agree Disagree Strongly disagree

6. I **know** a variety of **strategies that can be used to actively engage clients in the rehearsal and elaboration** of concepts and content from a therapy session.

Strongly agree Agree Disagree Strongly disagree

7. I **know** a variety of **strategies that can be used to assess client learning** at the end of a therapy session.

Strongly agree Agree Disagree Strongly disagree

8. I can **incorporate** into my therapy sessions a variety of **strategies that engage the prior knowledge and experiences** of my clients at the beginning of the session.

Strongly agree Agree Disagree Strongly disagree

9. I can **incorporate** into my therapy sessions a variety of **strategies that actively engage clients with the concepts and content** during the session.

Strongly agree Agree Disagree Strongly disagree

10. I can **incorporate** into my therapy sessions a variety of **strategies that actively engage clients in rehearsing and elaborating** on the concepts and content during the session.

Strongly agree Agree Disagree Strongly disagree

11. I can **incorporate** into my therapy sessions a variety of **strategies to assess client learning** during the session.

Strongly agree Agree Disagree Strongly disagree

Instrument 3: Future Therapist Writing Prompts

Development and Implementation of Interdisciplinary Pedagogical Opportunities for
Occupational Therapy Professional Level Educators and Students

Date:

Narrative (future therapists') writing prompts

*All stems are adapted from Indiana Department of Education "Teacher Effectiveness Rubric,"
March, 2010.*

1. Describe the variety of planning you create in order to offer a variety of instructional strategies for your clients:
2. Describe how you effectively engage the prior knowledge and experiences of your clients in order to connect them to your therapy session:
3. Describe the multiple ways in which you engage clients in content in order to promote their mastery of your therapeutic goals:
4. Describe how you strive to develop relationships with clients and their significant others in order to amplify opportunities for their learning: