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Investigating Student Approaches to Learning with Structured or Unstructured Client Collaboration

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INVESTIGATING STUDENT APPROACHES TO LEARNING WITH
STRUCTURED OR UNSTRUCTURED CLIENT COLLABORATION

by

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A thesis submitted to the Graduate College
in partial fulfillment of the requirements
for the degree of Masters of Science
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INVESTIGATING STUDENT APPROACHES TO LEARNING WITH STRUCTURED OR UNSTRUCTURED CLIENT COLLABORATION

Cara E. Masselink, M.S.

Western Michigan University, 2016

As a profession, occupational therapists pride themselves on providing client-centered treatment. It is hypothesized that increased structured client collaboration as well as incorporating reflective journaling in the fieldwork setting (to meet the students at their level of learning) will improve student's critical thinking skills, and encourage them to seek deeper learning techniques to ensure they are providing 'best practice' occupational therapy for the client and his/her family. In this pilot study, the learning approaches of students in two existing University-based clinic programs were measured over the course of one semester. The treatment group was required to participate in structured, intentional caregiver collaboration and wrote weekly reflective journals as a part of the planned coursework, while the control group had no reflective journaling and experienced unstructured caregiver collaboration. This study also addressed if the Revised Study Process Questionnaire 2F (RSPQ-2F) is a sensitive tool to measure changes in learning approaches over one semester (Biggs, Kember, & Leung, 2001). The results indicate that the students reverted to surface learning strategies when stressed to manipulate learned information in a supervised and structured clinical setting. Additional research is required to determine if results are consistent over larger sample sizes, control for external and internal variables, and measure long-term effects.

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Cara E. Masselink

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Background Information

According to leading occupational therapist Glen Gillen in his 2014 Slagle Lecture, “We need to move away from ‘therapists doing to’ and back to a model of ‘clients doing’” (Gillen, 2014, p. 10). To return to the roots of occupational therapy in this manner, the next generation of occupational therapists must be taught this important concept. One way we can instill this notion in our students is by incorporating more direct client experiences in our curriculum and course development. Over the past two decades in the United Kingdom and internationally, legislation, the user movement, and professional development have each advocated for users of rehabilitation services to increase their involvement in the curriculum and course development of these professionals (Braye, 2000; Department of Health, 1998; 2000; Waterson & Morris, 2005).

Currently, no such legislation exists in North America, but reimbursement changes focused on the functional significance of the provided medical service to the client are evolving. A publication produced by The Coding Institute (2015) reported an up to 6% reduction in payment that will soon occur when functional outcomes of an encounter are not evaluated. It states, “The powers that be are getting more serious about reimbursing providers based on quality instead of volume.” (The Coding Institute, 2015, p. 25). To ensure full reimbursement, clinicians will need to be aware of what matters to the client, and concentrate treatment on those metrics. Stressing the importance of client participation in service needs to be done early in the process of educating new occupational therapy professionals in order for client centered care to be fully integrated into the culture of occupational therapy practice. Beginning to emphasize person-centered treatment through modeling and experience, and not just didactic learning, throughout the curriculum will help the students to critically think about service user

involvement within every class, allowing them to integrate book knowledge with client experience and client need in service provision.

In theory, occupational therapy prides itself on maintaining a person-centered focus, during the evaluation and intervention process, although there is concern that this declaration does not hold true in practice (American Occupational Therapy Association, 2014; Hammell, 2013). Hammell (2013) critically reflected on the profession of occupational therapy and its claims to client-centeredness, stating, "Indeed, client-centered practice has been subjected to little critical reflection within the occupational therapy profession." (p. 174). The author reiterated occupational therapy's mission statement and claims to client-centered care, comparing them to demonstrations in literature and clinically that prove our focus on the person. However, six leading occupational therapy journals, examined over an 11-year period, published only 18 participatory (occupational therapist and client/consumer group collaborative) research studies. Barriers to client-centered care are also mentioned, including the possible ambiguity or lack of congruency of the term 'client-centered care', and notes that the largest barriers are often at the level of the therapist. Although occupational therapy has historically claimed to focus solely on the client's needs, there is a need for more evidence demonstrating our commitment to client-centered care, best-practice methods to support the framework that is required to support our clients, and ensuring that our students develop professionally with the skills and tools to address the large variety of cultures and individual, unique occupations that clients consider important.

The need to foster internalization of client centered care principals in OT students is clear but tools to measure critical thinking that can be easily integrated into curriculum, and more importantly are valid and reliable, are difficult to locate. For this reason, the majority of studies focus on student or client feedback, or qualitative measures. For example, in 2013, Cleminson

and Moesby published an article describing their experience integrating client lived experience with a mental health disorder into an occupational therapy course centering on mental health. The instructor and client utilized student feedback from surveys to change the client's involvement over a total of three semesters, increasing the client's active involvement in the course per student request. However, the instructor was unable to objectively measure the benefit of the client's involvement on student learning, stating, "It has already been stated that there is no guarantee that service user involvement in mental health teaching does change the behavior of future practitioners" (Cleminson & Moesby, 2013 p. 12). Clearly, sensitive measurement of student response to client collaboration is needed to objectively determine if exposure to clients should be a necessary part of the students' professional development, and in what context the client collaboration is best presented.

When addressing critical thinking skills, approaches to learning are one way to evaluate if course content is directed to best support student learning (Biggs, Kember and Leung, 2001). While students may learn clinical material by rote memorization, to acquire entry-level clinical skills they must be able to retrieve appropriate information, manipulate it into applicable portions, and apply it to specific situations to provide justifiable client-centered care. In a clinical situation surface learning strategies, such as rote memorization and selecting only relevant material when studying for an exam, will limit or slow the student in their progression to become an expert practitioner (Benner, 1982). Deep learning approaches, the execution of the intrinsically motivated student to independently investigate desired course material over and above material required for class completion, should be utilized by the student to ensure that sufficient knowledge is gained to provide optimal care in a clinical situation (Biggs et al., 2001). The approaches students utilize when learning is both a product of the teaching method as well

as their own personal characteristics, and students will adjust their learning styles based on course content and delivery (Biggs et al., 2001).

Dunn and Musolino (2011) addressed the need for sensitive tools to measure critical thinking, testing two tools designed to measure critical thinking components in Hong Kong for North American appropriateness. In this study, the relationship between surface and deep learning strategies and the ability to translate book knowledge into successful future practice was acknowledged. They queried 124 graduate level occupational (MOT) and physical therapy (DPT) students to determine the reliability, responsiveness, and temporal stability of the Revised Study Process Questionnaire (RSPQ-2F) to measure reflecting thinking and approaches to learning (Biggs, Kember, & Leung, 2001). In response to learning approaches, the study revealed the students with higher surface learning approaches over deeper approaches. In response, the authors reported a need for more applied experience in fieldwork or clinical education to transform student perceptions about practice. Mitchell (2013) also reports the significance of the fieldwork setting, which is recommended as a prime transformation point for students, stating, "These clinical practice experiences may be particularly important for triggering the dissonance which activates epistemological development and leads students to view knowledge as more complex, tentative, and contextual, requiring narrative, pragmatic, and ethical reasoning." (p. 29).

This proposed study aims to measure the students learning approaches, hypothesizing that meaningful collaboration with clients and practice of reflective thinking will shift the student's use of surface learning strategies to deeper learning strategies. This will ensure a client-centered focus during occupational therapy provision and that significant, evidence-based intervention is provided for the clients and their caregivers.

Purpose

This pilot research study compared two existing fieldwork experiences with different structures. The first, called the Pediatric Clinic (treatment experience) contained a structured protocol to guide the students when collaborating with the caregiver. The students ended each week with a reflective journal focused on the experience of the caregiver/student collaboration. The second, called the Skills for Living Clinic (control experience) taught unstructured caregiver/student collaboration, and required reflective journaling. Through the methods below, this study aimed to answer, "Is there a difference between two groups of students in a before and after comparison of surface and deep learning strategies, when one group participates in a structured client collaboration process and reflective journaling?" and "Is the Revised Study Process Questionnaire 2F (RSPQ-2F) a potentially appropriate tool to measure surface and deep learning changes in a clinical practicum over one semester?" (Dunn & Musolino, 2011).

Method

Study Design

This quantitative pilot study was based on a quasi-experimental, pre-post test design. The student's report of their occupational therapy skills and learning methods served as the dependent variable, as measured in questionnaire form. Differences in the results of the pre-post questionnaire of the intervention and the control group were measured. The intervention group utilized a structured framework for caregiver collaboration and complete reflective journaling focused on the collaboration at the end of each week as part of their required coursework. The control group also served pediatric clients and their caregivers as a part of the practicum experience, but was not required to complete weekly reflective journaling and caregiver collaboration was encouraged, but unstructured.

Participants

The convenience sample of participants in this study included 16 Western Michigan University Occupational Therapy students. Eight students were enrolled in the WMU Pediatric Occupational Therapy Clinic (Pediatric Clinic), and eight students in the Skills for Living Clinic. The Pediatric Clinic served as the enrolled students second Level I Fieldwork placement, while the Skills for Living students were in their first Level I Fieldwork placement. Two males, both members of the Pediatric Clinic, participated in the study, while the remaining ($N = 14$) were females. All students involved were enrolled in the five-year dual-degree (Bachelor of Science in Interdisciplinary Health Services and Master's of Science in Occupational Therapy) program.

Materials and Procedure

The students completed a questionnaire hosted on SurveyMonkey between Tuesday, September 8 and Monday, September 21, 2015 to gather initial data. During the Pediatric Clinic orientation, time was allotted for explanation of the research project and the informed consent was also given for review and signature, if the students desired. This researcher visited the Skills for Living clinic on Tuesday, September 9 to explain the research project, answer questions, and provide informed consent documents for signature. The students were notified by email and requested to complete the same questionnaire between Monday, December 7 and Friday, December 18, 2015. Completion of this survey was required as a part of the students' coursework.

During the orientation period, the students in the Pediatric Clinic chose one client to follow the Structured Collaboration Protocol (Table 1). In the event that the client cancelled one or more times the Structured Collaboration Protocol, based on the total number of sessions (10), was modified if clients were unable to attend a session.

Table 1

Structured Caregiver Collaboration Steps

Step	Name	Description
1	History and interview	Documenting weekly routine and caregiver's top three goal areas.
2	Goal identification	Brief caregivers on evaluation results, using to narrow down intervention focus to two areas.
3	Education Goal 1	Educate caregiver with established goal 1. Include history/theory/anatomy and any specific terms. End with caregiver considering two potential barriers to progress.
4	Education Goal 2	Answer questions about goal 1. Educate caregiver with established goal 2, and have caregiver identify two potential barriers to progress.
5	Support tasks Goal 1a	Collaborate with caregiver to create 2 support tasks that work in family routine to trial.
6	Support tasks Goal 1b	Reflect with caregiver on support tasks from last week, modify as needed to improve carryover. Send home weekly report card (Miller, 2014).
7	Support tasks Goal 2a	Collaborate with caregiver to create 2 support tasks that work in family routine to trial; continue prior support tasks.
8	Support tasks Goal 2b	Reflect with caregiver on all support tasks, modify as needed to improve carryover. Send home weekly report card (Miller, 2014).
9	Grading tasks	Provide two ways to grade each support task easier and harder; review with caregiver verbally and written document.
10	Last session!	Provide final update on child's progress with clinical goal areas; focus on caregiver carryover and reinforcement of the intervention as visits end.

On a weekly basis, the pediatric clinic students completed a reflective journal regarding the collaboration. The student described their experience in regards to the action, thinking, feeling, and reflective areas. This encouraged the benefit of reflection to the student, as well as allowed the instructor to monitor the student progress through the Structured Collaboration Protocol. If the client cancelled, the student focused instead on another significant experience, often observations of another student therapist and their client, or hands-on experience with another client and their caregiver.

Ethical consent for this study was obtained from Western Michigan University Human Subjects Institutional Review Board (Appendix A).

Instrumentation

Student methods of learning were measured through a questionnaire that gathered data regarding basic demographic information, specific occupational therapy practice skills, and the Revised Study Process Questionnaire (RSPQ-2F) (Biggs, Kember, & Leung, 2001). This tool is a 20-item self-report questionnaire that requests students rate themselves from "this item is never true of me" to "this item is always true of me" in response to questions that scores the student in their deep and surface learning approaches.

The RSPQ-2F was tested for reliability, responsiveness, and temporal stability with a North American sample to measure approaches to learning (Dunn & Musolino, 2011). The results indicated that the RSPQ-2F is significantly supported in temporal stability and responsiveness. In addition, the RSPQ-2F internal consistency for measuring approaches to learning fell within the accepted significance level (deep approach to learning $\alpha = 0.91$; surface approach to learning, $\alpha = 0.87$). The authors stated, "Changes in deeper approaches to learning may be best examined using a pre/post-test format, either by course or by year in program" (Dunn & Musolino, 2011, p. 134). This study reflects their proposed use of the RSPQ-2F by giving the questionnaire in a pre/post-test format over the duration of one course.

Data Analysis

The eight preliminary questions and 20 RSPQ-2F questions were scored and imported into SPSS 23 for Macintosh (IBM Corp., 2015) for analysis. Histogram and analysis of skewness and standard error of skewness demonstrated normal distribution within acceptable limits (between +/- 1.96) for the total Surface Approach and total Deep Approach pre and posttest

scores, split by Pediatric Clinic (treatment) and Skills for Living (control) groups. Kolmogorov-Smirnov Tests of Normality proved within acceptable limits for parametric testing. Pre and posttest scores for preliminary questions, total Surface Approach, total Deep Approach, as well as Deep Motive, Deep Strategy, Surface Motive, and Surface Strategy subsets were compared using two-tailed, paired samples *t*-tests.

Results

All eight of the Pediatric Clinic students (treatment group) completed the entire survey within the date requirements. Eight Skills for Living students (control group) were initially involved in the study, but only 5 completed the entire survey, for a total group attrition rate of 12.5% for the preliminary questions, and 18.75% for the RSPQ-2F.

The Pediatric Clinic students demonstrated 100% participation in the weekly reflective journaling. The Caregiver Collaboration steps were monitored in the reflective journaling as well as in the treatment plan for each week. If, in the treatment plan, the planned caregiver collaboration was not to the specifications of the detailed collaboration steps, the instructor met with the student or gave written comments to ensure consistency of implementation. The clients attended a range of seven to ten total visits, with a mean of nine attended sessions. The Caregiver Collaboration steps were modified in response to the number of visits, with six of the students attaining step 10, one student completing steps 9 and 10 in the last session, and one student focusing on steps 8 and 9 in the final session. The distribution of steps attained was negatively skewed, with a median of all 10 steps completed.

Of the eight preliminary questions, only significant pre-posttest results appeared in analysis of the question "I feel confident talking to my client's caregivers or parents about my client's performance", with the Skills for Living group reporting increased comfort from a mean

of 2.83 ($SD = .753$) to 3.83 ($SD = .408$) when speaking with caregivers over the course of the semester ($t(5) = 2.739, p = 0.04$).

The RSPQ-2F results in Deep Motive, Deep Strategy, Surface Motive, and Surface Strategy scores, as well as a composite Deep Approach and Surface Approach scores (Biggs et al., 2001). Composite score analysis revealed a significant increase in Surface Approach learning for the Pediatric Clinic students from a mean of 21 ($SD = 4.38$) to a mean of 23.5 ($SD = 4.8$) over the course of the semester ($t(7) = 2.76, p = .03$). More specifically, this resulted in a significant increase ($t(7) = 6.481, p = <0.001$) in the use of Surface Motive learning approaches from a mean of 8.25 ($SD = 1.67$) to a mean of 11.25 ($SD = 1.67$).

Discussion

This pilot study aimed to answer if student learning approaches could be influenced by the implementation of structured caregiver collaboration and reflective journaling in the fieldwork experience, as well as whether the RSPQ-2F is a sensitive tool to measure learning approaches over a fairly short time period of one semester.

In regards to the first question, these preliminary results suggest that learning approaches can be influenced by the introduction of structured caregiver collaboration and weekly reflective journaling, although perhaps not in the manner expected. The results indicate that rather than deepening the student's deep learning approaches the opposite actually occurred, with the Pediatric Clinic students increasing their surface learning approaches throughout the semester, specifically the Surface Motive and composite Surface Approach scores. The practical significance of this could be explained by two different concepts. First, it may suggest that pushing students into situations where they are challenged to manipulate and apply their theoretical and book knowledge into caregiver friendly clinical terms is a skill that they need to

learn, but at this point in their academic course they do not contain the tools necessary to achieve success using deep learning approaches. Therefore, the students are drawing on their surface learning strategies of memorization of minimal material to decrease the chance of getting overwhelmed during explanations in the caregiver conversations. Secondly, it could suggest that while the students were increasing their surface learning strategies during this period, they saw the need to simplify their information intake to be successful during these exercises. In identifying what was important to learn, this may result in greater deeper learning approaches in the future as the students are exposed to and participate in additional clinical situations. A one semester time period may not allow enough time to measure the full implication of the caregiver collaboration and reflective journaling.

In addressing the second question, the RSPQ-2F did demonstrate changes in learning approaches this semester. However, while measuring learning approaches, construct validity of this tool may be in question when attempting to measure changes in learning approaches in this dynamic clinic setting, where the students are encouraged to combine previously and concurrently learned theory and book knowledge and apply to a clinical setting. As many of the questions in this survey refer to an academic, classroom setting, it is possible that this tool did not measure changes in the hands-on clinical setting, but instead more global changes in the students as they reflected on the impact of all of the classes they were enrolled in over the course of the semester. Additionally, variables such as professional behaviors, therapeutic use of self, and clinical reasoning were not controlled for in this study. Therefore, it is difficult to determine if possibly the students grew in other important areas more than the control group, demonstrating the effectiveness of implementing a more structured collaboration, even though it resulted in significant growth of surface learning approaches.

Overall, many limitations to this study occurred which impacted the results. The initial small sample size and the loss of three members of the control group over the course of the study negatively impacted the amount of final data gathered for analysis. This decreased power of the study, affecting internal validity. Maturation was not controlled for either, both in the study itself as well as the position of the students within the graduate program. While all of the students were enrolled in the five-year, dual-degree occupational therapy program, the Skills for Living students were in their third semester of the occupational therapy program and enrolled in their first Level I Fieldwork experience; the Pediatric Clinic students were experiencing their fourth semester during the data gathering period, and were enrolled in their second Level II Fieldwork experience. The difference in the fieldwork instructor approaches, fieldwork expectations, and concurrent class schedule between the treatment and control groups as well as the previous fieldwork experience that the Pediatric Clinic students had completed likely impacted the Pediatric Clinic students' learning approaches. Other limitations include the variable of the clients and caregivers themselves, including the client's responses to treatment, and the caregivers' differing levels of involvement in the Structured Collaboration steps. In the study design, client and caregiver homogeneity was sought when determining a control group for the pediatric treatment group, but this variable was not controlled for in this study. Additionally, while some caregivers strove to ask questions and actively participate in the occupational therapy process, others preferred to accept a more inactive role with less questioning and active involvement. While this is difficult to control, it does reflect realistic treatment situations that occur outside of the fieldwork experience.

Despite the limitations in this pilot study, the results of this study provide valuable information regarding occupational identity as a beginning student therapist, student learning approaches, and the relationship of these two concepts to a clinical situation.

Conclusion

In conclusion, results suggest that implementation of structure around caregiver collaboration may not encourage students to deepen their learning approaches. Additional future research is necessary to determine if the RSPQ-2F was successful in measuring the impact of the Structured Caregiver Collaboration and reflective journaling on the student's learning approaches in a clinical situation, other than outside variables. Additionally, future research would support if learning approaches, in response to stressful situations requiring manipulation of material, may initially result in the students reverting to surface learning strategies; before demonstrating transition to deeper learning approaches when knowledge is fully incorporated into their therapeutic persona and readily accessible when the need for professional justification of services presents. More importantly, the impact of a structured format for client and/or caregiver conversations on client-centered care should be examined. Central to the very definition of Occupational Therapy, if changes of client perception of individualized care, carryover of treatment into the client's daily life, and overall functional outcomes occur, the structured collaboration protocol may be a useful tool to scaffold students into difficult conversations regardless of influence on learning approaches. Overall, the metrics of this study require additional examination to determine if increased structure in a fieldwork experience may result in positive long-term effects on student learning approaches.

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Appendix A

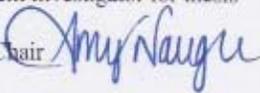
Human Subjects Institutional Review Board Letter of Approval

WESTERN MICHIGAN UNIVERSITY

 Human Subjects Institutional Review Board

Date: September 8, 2015

To: Michelle Suarez, Principal Investigator
Cara Massclink, Student Investigator for thesis

From: Amy Naugle, Ph.D., Chair 

Re: HSIRB Project Number 15-09-05

This letter will serve as confirmation that your research project titled "Investigating Student Approaches to Learning with Structured or Unstructured Collaboration" has been **approved** under the **exempt** category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may **only** be conducted exactly in the form it was approved. You must seek specific board approval for any changes in this project (e.g., ***you must request a post approval change to enroll subjects beyond the number stated in your application under "Number of subjects you want to complete the study."*** Failure to obtain approval for changes will result in a protocol deviation. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

Reapproval of the project is required if it extends beyond the termination date stated below.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: September 7, 2016

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