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## Student Perceptions of Scholarly Writing

Shirley Peganoff O'Brien  
*Eastern Kentucky University, shirley.obrien@eku.edu*

Dory Marken  
*Eastern Kentucky University, dory.marken@eku.edu*

Kelsey Bennett Petrey  
*Southern Kentucky Rehabilitation Hospital, kelsey\_bennett21@mymail.eku.edu*

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# Student Perceptions of Scholarly Writing

## **Abstract**

Learning the process of scholarly writing, including the significance of peer review, is an essential element in the preparation of students for professional practice. This descriptive research study, using Scholarship of Teaching and Learning methodology, explores one approach to teaching scholarly writing in an occupational science/occupational therapy curriculum. The writing assignment was designed to offer multiple points for feedback and revision and instructional features to reinforce learning. A survey of students [ $n = 169$ ] participating in this scholarly writing project was conducted yearly to gather their perceptions of learning. The results revealed four key elements: instructional strategies are needed to support scholarly writing, students value explicit instructor feedback, a successful writing experience opens the possibility for students to write in their professional future, and students will develop the habits of a writer given structure and pedagogical considerations in the assignment construction. This experience shows students will work to achieve the expected standard for scholarship once writing is made an essential part of the course and their efforts are supported by scaffolding the assignment. Through this experience, it was also learned students need opportunities for repetition and practice to refine scholarly writing. Suggestions for future research are proposed.

## **Keywords**

Education, Instructional Design, Occupational Science, Occupational Therapy, Pedagogy, Scholarly Writing

## **Credentials Display**

Shirley P. O'Brien, PhD, OTR/L, FAOTA; Dory M. Marken, PhD, OTR/L, FAOTA; Kelsey Bennett Petrey, MS, OTR/L

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Writing assignments are a common assessment practice in higher education for measuring student learning. Yet, students enter programs with deficiencies in their abilities to express ideas clearly, evaluate and synthesize the literature, and establish routines for self-directed learning (Ondrusek, 2012). To address these deficiencies, universities have designated content courses as writing intensive. These courses provide opportunities to maximize mindful, conscious planning in the writing process (Nilson, 2014). Employing the Scholarship of Teaching and Learning (SoTL), we examined the process of teaching scholarly writing in an occupational science and occupational therapy curriculum over a 3-year period, incorporating students' perceptions.

### **Literature Review**

Scientific writing is as the active process of clearly communicating original research in a field of study. It requires adherence to a well-established manuscript format as well as a special set of skills (Goldbort, 2001; Walsh & Devine, 2013).

Professionals in the occupations of education and work hold expectations for clear communication, and they value scholarly writing as a means to share knowledge and beliefs. The existing literature discusses how professional communities organize information for scholarly writing (Byard, 2013; Gazza & Hunker, 2012; Guilford, 2001; Jalongo, Boyer, & Ebbeck, 2014; Patterson, 2001; Shields, 2014). Using the search terms of scholarly writing, scientific writing, and disciplinary writing processes, we conducted a review of occupational therapy literature discussing detailed pedagogical instructional strategies, which yielded a limited

number of specific articles. The nursing literature has addressed teaching scientific and scholarly writing over the last several decades. Authors emphasized the importance of providing a structural model for effectively teaching writing in a discipline (Berg & Serenko, 1993; Gazza & Hunker, 2012; Hunker, Gazza, & Shellenbarger, 2014; Jalongo et al., 2014; Patterson, 2001; Regan & Pietrobon, 2010). Regan and Pietrobon (2010) acknowledged the importance of using the writing process to learn about specific content at metacognitive levels. Their challenge was finding a conceptual or theoretical framework to teach scientific writing per se. Luttrell, Bufkin, Eastman, and Miller (2010) explored teaching the American Psychological Association (APA) style for writing in a psychology course. They equated professional socialization to learning to write scientifically for one's discipline. Their findings suggest the need to generate competencies for understanding APA style beyond a one-time event in curricula. Scaffolding of expectations inserted in short bursts over multiple semesters produced better process application of APA than leaving students to their independent learning. Hunker et al. (2014) and Shellenbarger, Hunker, and Gazza (2015) challenged professional educators to consistently implement and evaluate writing intensive practices that have been adopted in curricula. Using a critical thinking framework (Paul & Elder, 2008) further promotes the integration of higher ordered thinking processes for appraising, analyzing, and applying disciplinary content in a structured manner.

The Accreditation Council for Occupational Therapy Education (ACOTE) *Standards and*

*Interpretive Guide* (2011) identifies the need for clear, logical, and relevant documentation about clients in the context for reimbursement at the entry-level (B.5.32). Further, occupational therapists must demonstrate foundational skills to write and/or disseminate information for scholarly presentation and/or publication (B.8.8). An entire ACOTE standard (8.0) is dedicated to scholarship and activities related to scholarly writing to ensure proficiency for entry-level practitioners. Thus, the process of teaching and valuing scholarly writing in occupational therapy is supported and acknowledged as an expectation of a professional (Whitney & Davis, 2013).

The terms scholarly writing and scientific writing are used interchangeably in the literature. Of the literature reviewed, seven authors in the fields of biology, chemistry, mathematics, nursing, and psychology used scientific writing as the preferred term (Byard, 2013; Goldbort, 2001; Guilford, 2001; Luttrell et al., 2010; Maoto, 2011; Patterson, 2001; Regan & Pietrobon, 2010; Schulte, 2003; Venables & Summit, 2003); six authors in education and nursing fields used the term scholarly writing (Gazza & Hunker; 2012; Hunker et al., 2014; Jalongo et al., 2014; Linder, Cooper, McKenzie, Raesch, & Reeve, 2014; McMillan & Raines, 2011; Shellenbarger et al., 2015); four authors in nursing, library science, and occupational therapy used the terms professional writing or the writing process (Berg & Serenko, 1993; Parr & Timperley, 2010; Shields, 2014; Whitney & Davis, 2013); and three authors used the term self-regulated writing (Bastian, 2014; Fauchald & Bastian, 2015; Nilson, 2014). Although a preferred

term does not exist to describe the writing process, we have chosen to use scholarly writing as the overarching concept explored in this article, as it fits with the current standards for an ACOTE-accredited educational program (2011). Through the systematic investigation of teaching and learning strategies, we hope to further stimulate academic discourse about the process of teaching scholarly writing in occupational therapy curricula. For this article, we have adapted Hunker et al.'s (2014) definition of scholarly writing. Scholarly writing is specialized in a discipline, it communicates original thought using language consistent in the profession, includes evidence-based literature support, and is arranged consistent with the standards for peer-reviewed publication.

The purpose of this article is to provide a descriptive evaluation of teaching scholarly writing in an occupational science and occupational therapy curriculum. Following the spirit of Boyer's research in the scholarship of teaching and learning (Boyer, 1990), we chose to explore students' perceptions of both the writing intensive experience and the merits of scaffolding the writing process. The central research question is how college students respond to an assignment that parallels the experience of scholarly writing in professional practice with repeated phases of writing, reflection, and revision.

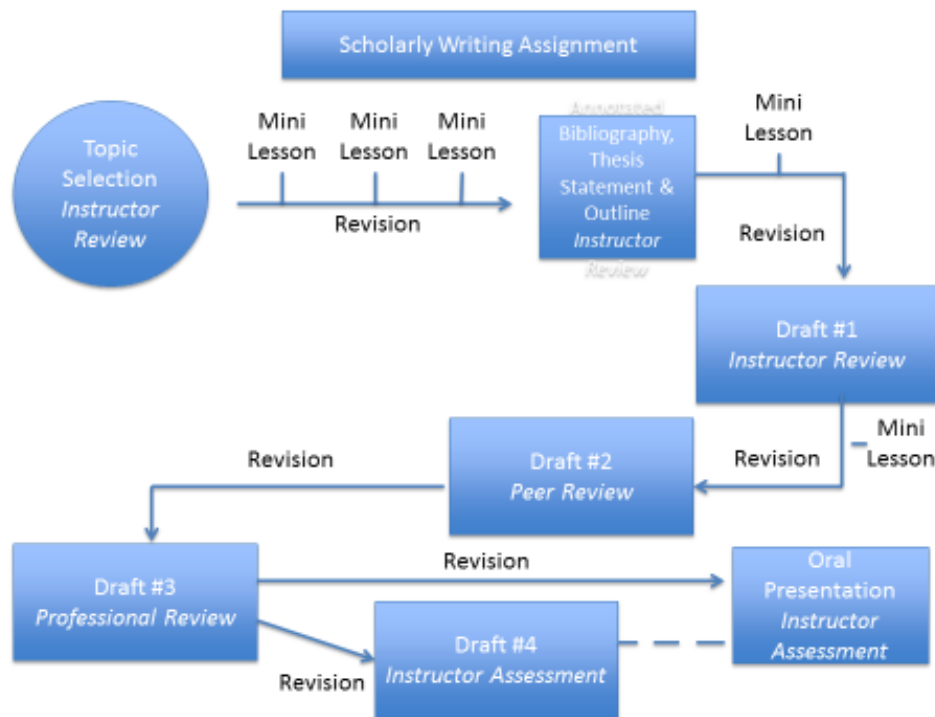
### **The Assignment**

The writing assignment described in this article is a requirement in a health care policy and service delivery course offered in the last semester of the undergraduate program in occupational science. Writing is integral to the course design

through a substantive capstone writing project that links to the occupational science curricular theme of communication and contributes to the university's Quality Enhancement Program goal of developing informed, critical, and creative thinkers who communicate effectively. The writing intensive portion of the course is overlaid with student learning outcomes to produce effective documents appropriate to the course level and to recognize effective writing strategies.

Through varied teaching methodologies of in-class writing, reflection, and discussion, we challenge students to integrate disciplinary content with U.S. health policy. Scaffolding, or the step-by-step instructional process of supporting and guiding student transition to more independent and fluent writing performance, serves as the framework for the assignment. The primary goal of the assignment is student proficiency in written communication,

including the ability to synthesize and express an understanding of health care issues important to the practice of occupational therapy. Students demonstrate their learning with a fully developed paper suitable for dissemination to a professional audience. To support students in the writing process we purposefully thread mini lessons across the semester, including instruction in APA citation and format style, the purpose and structure of an annotated bibliography, the value of working from an outline, the merits of a well-constructed thesis statement, effective search strategies, the importance of scientific tone when writing for a professional audience, and the correct use of paraphrase to avoid plagiarism. We established the following set of steps and timeline to guide students through the assignment. Figure 1 illustrates the sequence and flow of the assignment.



*Figure 1:* The step-by-step instructional process to guide students through writing a paper appropriate for a professional audience.

## **Topic Selection**

To begin, students conduct a broad search of reliable news reports, health care Web sites, or health-related items in the popular press to identify a contemporary health topic, or topics, of individual interest. Once they have identified their topic or topics, they begin a more organized search of the professional literature to develop a beginning understanding of the issues, which reinforces the information literacy component inherent in scholarly writing. In this pre-writing phase students are encouraged to move from the tentative-choice stage to firmly committing to a particular health care topic.

## **Annotated Bibliography, Outline, and Thesis Statement**

Students submit an annotated bibliography, outline, and a specific thesis statement early in the semester and receive instructor feedback. For this project, a collection of twenty high-quality, recent references from professional, peer-reviewed sources is considered the norm. This first graded submission is worth 10% of the final project grade and prompts students to more closely examine the assignment expectations. Students are encouraged to delve more deeply in the scholarly literature, consider their topics from multiple perspectives, and organize their thinking by linking points on the outline with specific references as a result of instructor feedback. Many students have not previously constructed an argumentative thesis, so in-class and one-on-one instruction is provided to illustrate purpose and format.

## **First Draft**

Working from their outline, students develop a draft of the paper that includes sections dedicated to description, relationship, and relevance of their topic. Students typically demonstrate an adequate ability to describe their selected health care topic; instructors often focus their feedback on students' interpretations of references and urge them to more clearly articulate ideas and support their thesis. The draft submission is worth 10% of the final project grade and is returned with extensive instructor feedback. Students are asked to reflect on the feedback and revise in an iterative process that leads to a more polished paper.

## **Peer Review**

At mid-semester students submit a second draft for peer exchange. Instructors use a strategy of random assignments for a more objective dispersal of papers. No points are awarded for completing the peer exchange; however, students are carefully instructed in the review process and provided with a feedback sheet to guide their examination. Student pairs meet at the beginning of a subsequent class session to verbally share their appraisals and recommendations for improvement.

## **Professional Review**

Toward the end of the semester each student is required to meet with a consultant at the campus writing center for a final round of review. Writing center consultants are upper division and graduate students trained in writing practices, and they vary in the type and extent of information they provide from pointers on surface features to more substantive input on ways to strengthen the paper's central thesis. At this phase of the project the

emphasis is on proofreading to eliminate all typographical and grammatical errors while adding clarity to the analysis and synthesis of ideas.

### **Final Submission**

To finish the assignment students submit a complete package of all materials gathered throughout the semester, including references cited; all drafts of the paper; peer, consultant, and instructor feedback; and the final paper. While handling all the parts of the final package can be cumbersome for the instructor, it requires students to organize materials across the semester and demonstrates whether students considered feedback and responded with relevant changes in their writing. This completed package is worth 70% of the final project grade.

### **Oral Presentation**

At the close of the semester students formally present their topics and conclusions to classmates in a symposium format. The students' ability to select and clearly express main points of the paper and respond to discussion questions counts for 10% of the final project grade.

### **Method**

This study followed the principles of survey research to explore students' perceptions of learning. In this cross-sectional design, students who were enrolled in the writing-intensive course over 3 consecutive years were included in the sample. The study took place at a Master's I, public university in a course required for all undergraduate senior level occupational science students and students in the transition to a Master of Science in Occupational Therapy degree program. After receiving approval by the Institutional Review

Board for the Protection of Human Subjects, information was gathered from the students via a self-administered, paper-pencil questionnaire that included a combination of open- and close-ended questions that could be analyzed using descriptive statistics and coding of text. The participants were notified in a cover letter of their rights in regard to the study, and they indicated their choice to participate or not to participate in the research by checking the corresponding box on the survey.

Two validation strategies were used to assess the accuracy of the results. Researcher debriefing occurred at multiple times during analysis. Through a consistent process of verbal and written peer exchange we endeavored to eliminate bias and explore the survey data in greater depth. One of the authors participated both as a student participant and as a data analysis assistant, in addition to participating in the debriefing process. Member checking occurred through formal contact with three students who had previously completed the writing assignment while enrolled in the course. Each student received a written summary of the results, and all three students responded via written statements that the results were plausible given their experience with the project (Creswell, 2014).

### **Instrument**

The course instructors developed a questionnaire to answer the research question specific to this project. The instrument provides instruction for completion followed by six questions regarding the effectiveness of instructional strategies and student self-reflection about the writing process and growth as a writer. Two items were constructed using continuous 4- or 5-point

Likert scales to gather student responses. By way of example, one item offered students a 5-point Likert scale ranging from *instructor feedback not helpful* to *instructor feedback very helpful*. Nine open-ended questions prompted the students to share their unique perceptions of the writing experience. For instance, one item asked the participants to reflect back across the semester and describe what they learned about themselves as a writer. The students typically completed the questionnaire within 20 min.

### Participants

Senior occupational science students (75% of subjects) and students in the transition to a Master of Science in Occupational Therapy program (25% of subjects) were invited to participate ( $n = 170$ ) each of the three times the class was offered over a 3-year period. The students completed the survey after the scholarly writing project was submitted and prior to the end of the spring semester in which they were enrolled in the course. One student enrolled in the course chose not to participate during the 3 years of data collection. Sixteen of the students were male and 153 were female ( $n = 169$ ).

### Analysis

**Quantitative.** The students' perceptions about the value of a teaching strategy (e.g., mini lessons on select writing areas and the value of feedback by source) were measured using a Likert scale format. Data were analyzed using IBM SPSS Statistics (Version 22). Measures of central tendency and percentages were reported ( $p = .05$ ). Not all of the students answered all questions, thus the total responses varied by question.

**Qualitative.** The student written responses to the nine open-ended questions were transcribed and organized into a text document. We used a descriptive qualitative method that began with all investigators reading the data gathered in the first 2 years of administration and memoing to record initial impressions. Data gathered in the third year were merged with the existing data set and we returned to the process of memoing and recording impressions. In subsequent stages of analysis the investigators collaborated to develop more exact codes and code definitions. Through repeated cycles of recoding and refining code definitions two themes were generated that represent major results of the study.

### Results

The students were asked to share their perceptions about the value of select teaching strategies, called mini lessons, used to support the writing process. The mini lessons covered construction of a thesis statement, scientific tone in writing, how to paraphrase, and the use of APA formatting. The mini lessons reviewed material previously taught in general education courses or courses in the curriculum plan. Overall, most of the students (83.95%) saw value in the mini lessons. The instructors visually inspected the mean scores by year of the study. The means were 1.9045, 2.0895, and 2.1710, respectively ( $p = .05$ ). The value of the activity increased each year the course was taught. The increase in mean scores demonstrates an increase in perceived value of the activity by the students. Aggregate data are presented in Table 1.



**Table 1**

*Value of Mini Lessons in Regard to the Students' Perceived Ability to Construct a Thesis Statement, Adopt a Scientific Tone, Paraphrase, and Use APA Format*

Overall Value of Mini Lessons*	Percent of Respondents
No value	0.62%
Limited value	15.43%
Moderate value	55.55%
Strong value	28.40%

*N* = 164

Mean = 2.11

*Note:* \*Two students did not complete the rating of this item.

**Table 2**

*Value of Feedback by Source*

Source of Feedback	Mean Score by Feedback Type	Percent of Respondents
Instructor Feedback	4.62	
NOT helpful		0.0 %
Minimally helpful		0.61 %
Moderately helpful		8.54 %
Helpful		18.90 %
Very helpful		71.95 %
Peer Feedback	3.52	
NOT helpful		3.66 %
Minimally helpful		14.63 %
Moderately helpful		31.10 %
Helpful		25.61 %
Very helpful		25.00 %
Consultant Feedback*	3.78	
NOT helpful		4.27 %
Minimally helpful		12.80 %
Moderately helpful		21.34 %
Helpful		22.60 %
Very helpful		38.42 %

*N* = 164

*Note:* \*One student did not complete the rating for the consultant feedback.

The students were asked to rate their perceptions of feedback by source including instructor, peer, and consultant. The students rated the source of feedback on a continuum from *not helpful* to *very helpful* (see Table 2). Mean scores were calculated at the  $p = .05$  level. The students found the instructor feedback more helpful than that of peer and consultant feedback. The students were encouraged to use the campus writing center for consultation; however, some of the students used other sources, including previous teachers.

The following two themes represent our interpretation of the students' experiences of developing the skills of a writer. We were heavily influenced by the students' own language, and therefore include exemplars in the summary of each theme.

### **Theme 1: Opening the Possibility**

At the close of each semester a number of the students would recognize a gap between their level of ability and the assignment expectations, albeit the majority of the students were pleased and sometimes surprised at the quality of their written work. The participants' descriptions of the learning experience pointed to the possibility of writing professionally in the future. Opening the possibility emerged as three interlaced sub-themes of strengthened confidence, professional identity, and the students' ability to self-assess their writing.

**Confidence.** Confidence in one's ability to communicate with others is an early step in the embrace of scholarly writing as a realistic choice, and the students touched on the possibility in various ways. One student responded, "The final paper came together very well and I was proud of all the work I put into it. It was rewarding to feel so confident about my final product." Another student offered this comment: "I'm most proud about how much I learned! Not only can I now talk and inform others on my topic, but I can relate it to the health care system, which is something I never would have thought possible prior to this course." Instructor feedback throughout the semester included both positive and critical appraisals of the students' writing with the net effect of improved final papers. One student wrote, "I realized that I am capable of

much more than I thought. Positive feedback from the instructor allowed me to gain more confidence."

**Professional identity.** A strengthened professional identity is also understood as part of opening the possibility, as the students recognized their ability to contribute to the profession by educating others. One student's contemplation of the educator role was seen in this response: [I was most proud of] "my ability to educate the reader without any bias. And my ability to keep the reader interested throughout the entire paper." Another student responded in a similar way: "I felt my paper was very informative on a topic that a lot of people are unfamiliar with. I feel as if my paper is educational which makes me proud." And finally, "I was most proud of the topic I chose because my topic is not well known, and by doing extensive research I was able to learn a lot and was able to teach others about this important topic."

Professional identity was also intensified as the students recognized the opportunity to advocate for others through their writing. With freedom to choose their topics, the students selected issues that linked to critical life experiences or academic interests, and they became ardent supporters of their individual causes.

**Ability to self-assess.** The students' ability to self-assess was a positive outcome of the writing experience, as it is through reflection that they will continue to develop as writers. The students were initially challenged to meet the assignment expectations, including the use of scientific tone, avoiding repetition, omitting fluff, supporting points with current references, considering the topic from multiple perspectives, and adhering to an outline.

In regard to scientific tone, one student wrote, “Before starting into my paper I had very little knowledge about scientific tone. I had a lot of extra words that were not needed and was able to tease them out with the help of the mini lesson.” Another student recognized the difference between her preferred style and the expectations for writing a scholarly paper. “I have a difficult time writing research papers. I’m a very creative, flowing writer and it was hard for me to leave out all the ‘fluff.’” The students self-assessed their performance on multiple elements of writing, including mechanics, style, and format while also considering the entire manuscript: “I learned that I tend to get caught up on details and can lose focus on the intent of my paper. If I reflect on the thesis and check the flow of the first sentence of each paragraph, I can reconnect to my thesis.”

As the semester progressed, the participants began to see scholarly writing as a means to communicate effectively with others in the discipline. One student captured the essence of the assignment in her self-assessment by stating, “This process helped me to look through the eyes of someone reading the research paper and see what they would ask – what information was still needed, what didn’t make sense and what statistics were helpful.” Her statement suggests this experience opened up for her the possibility of writing professionally as a future therapist. The example also reinforces valuing the writing process and the intellectual elements of the activity.

## **Theme 2: Valuing the Habits of a Writer**

Across all 3 years students expressed a new appreciation for the habits of a writer in response to

the writing assignment. Elements of this theme were explicit in the students’ responses to open-ended questions and underscored their intent to apply current learning to future assignments. The theme of valuing effective writing habits is comprised of four sub-themes: preparation, consistent schedule of writing, multiple drafts, and feedback from multiple sources. The students did not possess these foundational skills when starting the project, but were introduced to effective writing habits through mini lessons and detailed assignment requirements. The students attached value to the methods of scholarly writing when in hindsight they recognized the connection between process and quality.

**Preparation.** The students developed insight regarding the value of a preparation phase for scholarly writing when they dedicated time to establish an outline, locate and critically analyze references, construct an annotated bibliography, develop an exact understanding of the assignment, and make an informed topic selection. While the students felt restrained by an outline, they ultimately attached value to that preparatory phase: “I learned that organizing main points into an outline prior to writing my paper helped me develop a central theme.” And, “Making an outline and annotated bibliography. Those were invaluable when writing the first draft of my paper and gave me a way to organize my thought[s] and give direction to my paper. I think this could also carry over to many other situations.”

The students demonstrated proficiency in locating scholarly references, although many were not accustomed to reading for comprehension.

Instructor feedback focused on the students' efforts to study, rather than skim, their sources. Consistent encouragement to read for understanding resulted in a new appreciation for this preparatory step: "I will spend more time outlining my paper and reading my sources carefully." Another student captured the importance of preparing to write by stating, "[I will] take the time to understand the instructions and really break down the topic. It's better to take your time and really understand what you need to do, than to rush through something and completely miss the point of the assignment."

**Consistent schedule of writing.** The students departed from their habit of procrastination, and in its place established the habit of writing daily. The assignment timeline influenced this change, yet over the course of each semester the students began to value a consistent writing routine. Adoption of this new perception was captured by a student in these words: "I have learned, throughout this process, that writing is continuous, meaning that writing needs to be constant to be perfection. It is a process, in which one's writing improves through daily practice." And, more pointedly, one student remarked, "I learned that I am a much better writer when going through a process, rather than believing I can construct a masterpiece in one sitting."

We considered the students' intent to apply a new practice in future situations as critical to habit formation. The students bridged from present to future with insights regarding the value of a consistent schedule to write. "I definitely learned that this process takes a lot of time and development and that I need to be writing and studying a little

every day. If I do this, I can remember the topic/my material more so than if I procrastinate." The commitment to adhere to a schedule of writing was also noted in this student's reflection: "The next time I am given a similar assignment I will work on it a little every single day so the topic stays fresh in my mind and then I will better apply and synthesize information." This student went on to explain the problem of starting over when too much time had elapsed between sessions of writing, and how she could avoid that pitfall through a more deliberate pattern of writing.

**Multiple drafts.** A key concept of writing in an education context is refinement of the final paper through multiple drafts. The students reflected positively on this part of the learning experience, even though they initially felt the requirement for multiple drafts was burdensome. When asked what the student learned about himself or herself as a writer, one student wrote: "I learned that I could produce great work if I took the adequate amount of time to make revisions." That perception was repeated in various ways; for example, "I learned to write my paper more in a systematic way instead of trying to sit down and write 20 pages in one setting. Writing an outline, then first draft, then editing really helped me to see the organizational flow of my paper." Finally, one student identified a fundamental change in her writing style: "Revision. I never revise papers I've written, or has anyone else. However, I found that very beneficial in this paper because I got a lot of different perspectives as well as caught many mistakes."

### **Feedback from multiple sources.**

Professionals recognize that the end product improves when they integrate feedback from multiple sources, and in this assignment the students were obligated to “see” their writing through the eyes of others, including an instructor, a peer, and a writing consultant. The feedback the students received ranged from substantive comments on content to surface features, with the bulk of the feedback focused on APA format and grammar. One student valued reviewer comments by stating, “Re-reading and editing were challenging. The feedback from my professional reviewer really pushed me to new territory. It was challenging, but it was rewarding!” One student attended to the need to thoroughly consider and apply the advice received as a way to strengthen her writing. “The use of others to help guide your writing can be critical. Learning how to incorporate others ideas via peer reviews and suggestions is important.” Many of the students adopted the position that peer and professional feedback provided valuable insight on ways to improve, condense, and clarify their writing.

The first theme illustrates how the students moved from feeling insecure to feeling confident in their scholarship as a result of intensive sessions of writing and repeated feedback. This new confidence to communicate effectively strengthened their professional identity and permitted them to see “writer” as part of their future role. In the second theme, the students recognized how the habits of a writer can positively influence the quality of the end product.

The students’ perceptions regarding the value of the mini lessons were clarified as the data were integrated. The participants (83.95%) determined the instructional mini lessons had moderate to high value, with many declaring the information as largely review of material learned in earlier courses. The attitude of some was that upper-division students should already know the basics of professional writing, including correct format for in-text citations, thesis, abstract, conclusion, and scientific tone. The range of responses on this point illustrates the differing levels of writing experience among the students as a consequence of previous learning, and hence, the value attached to current in-class instruction.

The students clearly valued the instructor feedback with 71.95% identifying it as very helpful. When the data sets were integrated the written responses explained why the students heavily weighed instructor comment in assessment for learning. The participants generally felt that the instructor feedback went beyond surface features to address the “big picture,” while peers offered useful suggestions regarding format and the writing consultants provided advice on APA and grammar. Because the students found the higher levels of writing, including analysis, synthesis, application, and organization, most difficult, and made only minor mention of problems with the mechanics of writing, the weighting of the instructor feedback is understood as a close match between student need and instructor response.

### **Discussion**

The aim of this study was to explore the practice of teaching scholarly writing in an

occupational science and occupational therapy curriculum. We reviewed the students' perceptions of the value of the assignment and the methodology used for teaching and learning using the SoTL. The results revealed four key elements that respond to the research question: the importance of instructional strategies to support scholarly writing, the students' perceived value of feedback, the students' embrace of the stance of a writer, and the students' absorption of scaffolding as they developed the habits of a writer.

The process of writing a scholarly paper has multiple features for consideration. By reading disciplinary journal articles, students learn the vernacular of the profession. Yet, explicit strategies are needed to assist students with understanding the writing style, tone, and disciplinary expectations. Byard (2013) states, "success is usually directly proportional to the amount of time, effort, and attention that have been devoted to it" (p. 286). Thus, in curricular development, we must consciously plan for the intellectual expectations of the profession in preparing students to effectively share knowledge with various stakeholders.

Occupational therapy educators face the problem of not knowing how to integrate the continuous flow of new content into an already packed course or curriculum (Hooper, 2010). Critical choices in content and instructional strategies are required to effectively prepare students for practice, and should include scholarly writing as central to the occupational therapy profession. A feeling commonly shared among occupational therapy educators is that while writing has importance, they cannot sacrifice content to

teach writing. Bastian (2014) reframed the situation by asking educators to consider writing as a way to enrich and strengthen the course content, rather than as something that deprives the course of content. Faculty in one department of graduate nursing revised their curriculum on the supposition that writing is a process that reinforces content knowledge as students "discover and develop their ideas" (Fauchald & Bastian, 2015, p. 66). We adopted that same stance by supporting writing as students deepened their understanding of contemporary health care issues. The process of organizing, annotating, outlining, paraphrasing, analyzing, synthesizing, and revising engaged the students more fully in learning content, as these are elements of a learner-centered paradigm (Fink, 2003).

In an assessment of teaching and learning, Parr and Timperley (2010) found the quality of feedback had an effect on student progress in writing. The authors defined quality feedback as explicit, evaluative language that informs students of the degree to which they met expected standards, identifies problems in the written text, and suggests measures students can take to meet performance standards. Once supported in the use of quality feedback, the teachers in the study provided more specific comments to the students that linked to performance outcomes and addressed deeper features of the writing sample. As instructors in the project reported here, we considered extensive written feedback to students early in the assignment and multiple times throughout the writing process as a significant part of our teaching strategy. We did not measure the students' progress to determine

whether explicit feedback shaped their writing performance, although the students underscored the importance of in-depth instructor feedback in their survey responses.

Parr and Timperley (2010) reasoned that quality feedback provided for the purpose of improved writing performance offers students a model for continued self-assessment. In most academic settings, the intent is to facilitate the development of scholarly writers who will continue to write in the future. Once the students were mindful of the benefit of seeking and accepting evaluative feedback, it was expected that they would adopt it as an essential element of the writing process. The participant survey responses did identify “getting feedback” as a future writing strategy, particularly to broaden their thinking by gathering the perspectives of others. Our findings are similar to those of Venables and Summit (2003), who found that students valued peer assessment when writing a scientific paper. Despite initial reservations about essay writing and peer assessment, the students reported that the process deepened their comprehension of the course content.

Occupational therapists are obliged to be skillful readers and writers in their professional roles. They must assume a leadership role in contributing to and disseminating knowledge with clarity and relevance to their audience. Writing a scholarly product or paper takes work and effort (Byard, 2013; Jalongo et al., 2014; Schulte, 2003; Whitney & Davis, 2013). It is not an easy process, as students quickly learn through their experiences. We offer an overt framework for use in developing

scholarly writing skills, reinforcing suggestions from the literature (Fauchald & Bastian, 2015; Gazza & Hunker, 2012; Hunker et al., 2014; McMillan & Raines, 2011). The support structure of a framework offers the learner ongoing opportunities to enhance their writing and add to their perceived self-confidence. By implementing intentional teaching, much like Linder et al. (2014), we are facilitating the students’ ability to embrace the stance of a writer in the profession of occupational therapy.

A part of our intentional design is scaffolding an assignment to reinforce the habits of a writer. Students need structure and deadlines from an instructional design perspective, regardless of their level in an educational curriculum (Gazza & Hunker, 2012; Guilford, 2001; Luttrell et al., 2010; Regan & Pietrobon, 2010). The assignment structure facilitated writing by using a multi-stage process: established time frames with multiple points dedicated to drafting, feedback from varied perspectives, and revision opportunities. Following the Paul and Elder (2008) intellectual standards, clarity, logic, relevance, and the breadth and depth of content were all factored into the assignment design to promote critical thinking about the topic. The outline allowed us to support each student’s development to expand knowledge and build confidence and a professional identity. As noted in the results, the assignment promoted feelings of ownership in the students both in content understanding and in the writing process. Student learning is strongly motivated by formative assessment, especially to move content understanding to deeper levels of thinking (Parr &

Timperley, 2010). Students need and desire guidance and feedback to consider their topic from multiple perspectives and explain ambiguities from the literature. By establishing guidelines with clear objectives and steps, we enabled the students to better understand the expectations of the writing process, while reinforcing metacognitive techniques of effortful learning (Brown, Roediger, & McDaniel, 2014). Further, the students were able to appreciate the value of preparation and the commitment of keeping a consistent writing schedule.

### **Implications for Occupational Therapy Practice**

The findings from this study have implications for occupational therapy educators in the following areas.

**Course design.** Faculty are responsible for use of best practices in course design and conveying knowledge to diverse populations. Structuring course content in a way that both introduces and reinforces knowledge while incorporating the scholarly writing process takes forethought. Use of mini lessons is an effective strategy to reinforce students' skills, regardless of their level. It is key to focus on the outcome measures of the knowledge, skill, and attitude needed to be the best in one's field (Gazza & Hunker, 2012; Maoto, 2011).

**Coaching.** The instructional strategy of feedback is an effective formative assessment technique used in coaching. Explicit feedback encourages student movement from superficial to deep learning, if reinforced by use of the critical thinking concepts of logic, relevance, breadth, and depth (Paul & Elder, 2008). An example we found where coaching was important to the process was in

the critical appraisal of the literature. Some students were unsure of how to mine the articles for pertinent facts. Locating relevant references, annotating, and paraphrasing are skills that need reinforcement. The role of the course instructor moves from that of an expert to a facilitator of learning, shifting the expectations for the student from passive to active purveyor of knowledge.

**Doctoral education.** Occupational therapy education, be it at the master's or doctoral level, requires the fostering of higher order thinking skills. Translating scholarship into practice requires critical thinking. Students must fully evaluate the logic and relevance of knowledge and information to move to higher order thinking skills of analysis and synthesis (Paul & Elder, 2008). Preparation at the doctoral level infers the expectation of a professional who can and will understand and apply evidence-based information with clients and participate in scholarly communication. An outcome of doctoral education is to produce leaders and scholars that communicate effectively with multiple populations (ACOTE, 2011). Learning to write for publication is different as a process from focused documentation in practice. Scholarly writing instruction must be integral to any curriculum looking toward entry level at the doctoral level, thus intentional in instructional design of courses and learning activities.

### **Limitations of the Study**

There are several limitations to consider. The link between the researchers, in their roles as professors, and the participants, as students, presents the most apparent limitation in this work. This is a challenge in SoTL research. Social



desirability bias represents the possible inaccuracy of self-reports from respondents on sensitive topics. Another limitation evolved from the logistics of the research study. Due to the nature of the study arising from first-hand experience and inquiry of the course instructor, the natural development precluded the instrument from being field tested. Survey construction should have incorporated more detailed demographic information for analysis. While the researchers used methods of member checking and reflexivity to seek validation of results, separation of the researchers' possible bias cannot be ignored. This study focused on students at one university, thus generalizability is cautioned.

### **Future Research in the Profession**

Further research regarding teaching the process of scholarly writing across multiple levels of curricula is needed. Absorption and production of scholarly research has been identified as a key factor in the vitality of our profession (ACOTE, 2011). As this project developed from initial inquiry about teaching strategies in a writing assignment, limitations were not ignored. It is from these limitations that further research can refine and strengthen our results to better outline the needs of the profession surrounding teaching and learning the scholarly writing process.

For future inquiries, possible steps can be taken. Feedback on the survey can be gathered to enrich and expand material to better capture student responses. Further investigation into the prevalence and evaluation of student demographics including, but not limited to, age, gender, and education level is suggested. Multiple bias between the researcher

and the participant due to the relationship stressors between professors and students can be eliminated through timing of the survey after coursework completion. A focus on future assignments, building on this one, should be examined. As students progress, it is important to understand their perceptions of foundational aspects of the writing process implementation longitudinally. This work was the initial inference into the topic of teaching scholarly writing in the field of occupational therapy. It is an area for ongoing study to be refined and expanded through collaboration with colleagues in other university programs.

### **Conclusion**

The profession's education standards call for well-developed writers who can enrich the discipline's body of knowledge, yet educators are challenged to address scholarly writing in courses heavily laden with content. To address this challenge, this paper offered an approach that focuses attention on writing as one strategy to learn content knowledge. As SoTL researchers and educators, it is our mission to broadly explore teaching and learning practices along with cultivating dispositions of habits of the mind and heart in our students. Our experience provided an awareness that once we made writing an explicit part of the course and supported student efforts by scaffolding the assignment, the students worked to achieve the expected standard for scholarship. Through this experience we also learned students need opportunities for repetition and practice to refine scholarly writing. To teach scholarly writing requires attention to the process and the product if, as educators, we want students to apply occupation-

centered, evidence-based knowledge in the future. It is hoped this paper will stimulate discussion among educators regarding ways to more effectively teach scholarly writing in occupational therapy curricula.

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