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Patterns of Teaching Presence during One Semester of a Large Online Graduate Nursing Course

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Abstract: Extensive research supports the claim that student-instructor interaction is an essential element of successful online teaching. It is less clear, however, whether teaching presence is discipline-specific, or how it may be affected by the personal and professional background of individual instructors.

This article describes the quantitative portion of a mixed methods study to analyze patterns of commenting behaviours in a graduate-level, online nursing course. Following the Community of Inquiry theoretical framework (Garrison, Anderson & Archer, 2000), we compare experienced and inexperienced instructors, and specifically focus on how teaching presence evolved over a fifteen-week course. Our findings indicate that teaching experience affects the types and density (number per post) of comments used by teachers. Experience played a role in how density and overall level of activity evolved as the semester progressed. No differences in teaching presence emerged when comparing instructions for each assignment, but there were differences when comparing instructions to teacher posts.

Keywords: teaching presence, online learning, Community of Inquiry, graduate Nursing online courses, qualitative method, CoI taxonomy

Modèles de présence enseignante durant un semestre dans un cours en ligne d'études en sciences infirmières

Résumé: De nombreuses recherches mettent en relief que l'interaction entre étudiant et enseignant est un élément essentiel pour la réussite de l'enseignement en ligne. Cependant, il n'est pas clairement précisé si la présence de l'enseignant est spécifique à une discipline ni comment elle peut être affectée par les antécédents personnels et professionnels des enseignants. Cet article décrit la partie quantitative d'une étude à méthodes mixtes visant à analyser les modèles de comportements concernant les commentaires dans un cours de sciences infirmières en ligne. En nous appuyant sur le cadre théorique de la communauté d'enquête (Garrison, Anderson & Archer, 2000), nous comparons des enseignants expérimentés et inexpérimentés, et nous nous intéressons plus particulièrement à l'évolution de la présence des enseignants durant un cours de quinze semaines. Nos résultats indiquent que l'expérience d'enseignement a une incidence sur les types et la densité (nombre par message) des commentaires utilisés par les enseignants. L'expérience a joué un rôle dans l'évolution de la densité et du niveau général d'activité au fil du semestre. Aucune différence dans la présence enseignante n'est apparue lorsqu'ont été comparées les instructions pour chaque travail, mais des différences ont été repérées lorsque les instructions ont été comparées aux messages des enseignants.

***Mots clés*:** présence de l'enseignant, apprentissage en ligne, communauté d'enquête, cours d'enseignement supérieur en ligne pour infirmières, méthode qualitative, taxonomie de la communauté d'enquête

Introduction

Asynchronous online teaching is here to stay. The Covid-19 pandemic has shown us that online learning is generally, though not universally, effective, acceptable, and efficient, and safe during unusual times. Research conducted over the past two decades has identified effective teaching practices in online courses (Online Learning Consortium, 2016), but there is still much to learn about individual instructor differences can affect online instructional practices.

Here we present the quantitative portion of a mixed methods study of teaching behaviours in a large online asynchronous graduate course. The tool used to facilitate the quantitative analysis is the Community of Inquiry (CoI) framework, with modifications based on a previous qualitative study (Baker et al., 2020). The impetus for this mixed methods study was the authors/researchers' experience teaching asynchronously, a responsibility to mentor inexperienced teachers in online instruction, and the desire to research best practices for online instruction.

Although a significant body of work on the application of the CoI framework has been added (see Castellanos-Reyes, 2020 for a good summary), additional work is still needed to expand the scope of disciplines and to identify the extent to which the characteristics of effective online teaching may be discipline-specific. Two of the authors/researchers taught in this graduate course while the third is a linguistics professor with a background in language analysis.

We also had questions about the wide variation in instructor behaviours that we experienced as co-teachers and observed as program directors, department chairs and associate deans. Not only had we seen variations among individuals' behaviours regardless of their years as faculty, but also in the individuals' own behaviours as the

semester, year, and their career progressed. Some of this individualization is necessarily ameliorated when a course is controlled by curriculum committees and the technological need to place an entire course online prior to the onset of a semester. In this mixed methods study, we examined the patterns of commenting behaviours by a team of four teachers. We compared experienced and inexperienced instructors, and specifically focused on teaching presence and how it evolved over a 15-week course.

Background

The increase in online teaching over the last 50 years has been accelerated by the current pandemic. Online teaching may be entirely synchronous or asynchronous, or some combination of both. The transition to online instruction in higher education has been made with varying levels of thoughtful application of research and theory (Keengwe, 2010). Early efforts involved "cutting and pasting" the design and activities of face-to-face courses into the online environment. Now, we have a research-based understanding that four pedagogical elements are crucial components of successful online courses: student-instructor interaction, timely feedback, access to high-quality resources, and teaching presence (Parker et al., 2021; 2000; Shelton & Saltsman, 2014).

Contemporary and extensive research supports the claim that student-instructor interaction is an essential element of successful online teaching (Arbaugh & Rau, 2007; Major, 2010; Nagel & Kotzé, 2010; Reushle & Mitchell, 2009; Schrum et al., 2005; Swan, 2001), and that it is critical in creating a sense of community (Gironzetti et al., 2020). Frequent and meaningful student-instructor interaction is more effective than students' interaction primarily with content (Kyei-Blankson et al., 2019; Zhu et al., 2019).

The use of constructive and timely feedback as another crucial component of online instruction has also been widely documented (Lewis & Abdul-Hamid, 2006; Neumann &

Neumann, 2010, 2016; Neumann et al., 2017; Tricker et al., 2001; Young, 2006). Instructors use feedback to (in part) overcome the challenge of being geographically and temporally separated from students (Lewis & Abdul-Hamid, 2006; Neumann & Neumann, 2010, 2016; Neumann et al., 2017; Tricker et al., 2001; Young, 2006).

Teaching presence is associated with the Community of Inquiry (CoI) theoretical framework (Garrison et al., 2001). In Europe and North America, the CoI framework is now the main model guiding research in online education (Anderson et al., 2001; Arbaugh, 2007; Garrison, 2007; Garrison et al., 2000, 2010; Garrison & Arbaugh, 2007; Pozzi et al., 2007; Shea & Bidjerano, 2009; Shea et al., 2011; Swan & Ice, 2010; Swan & Shih, 2005; Torras & Mayordomo, 2011; Turula, 2017). Teaching presence is one of the characteristics of effective online teaching that have been conceptualized in the CoI framework.

Within the CoI model, presence is described in three ways: social presence, teaching presence and cognitive presence. Teaching presence is "the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes" (Anderson et al., 2001, p. 5). Teaching presence is divided into three categories of instructor behaviours: design and organization, facilitating discourse, and direct instruction. Under the CoI framework, the corresponding tools and coding scheme were developed to measure the incidence of each of these categories in student-teacher interactions. Teaching presence is positively associated with measures of course effectiveness, including cognitive presence, social presence, and students' feeling of belonging to a learning community (Cleveland-Innes & Campbell, 2012; Daspit and D'Souza, 2012; Garrison & Cleveland-Innes, 2005; Shea & Bidjerano, 2009; Shea et al., 2006; Swan & Shih, 2005).

It is unclear to what extent teaching presence may be influenced by teacher-specific factors, course-related factors, and disciplinary norms. Further, it is unclear how application of the CoI framework itself guides interactions, feedback, course design, execution, and (in general) teaching presence. Preliminary evidence suggests teaching presence may not be "discipline-agnostic;" thus, the relevance of the CoI coding scheme may vary depending on the discipline (Arbaugh, 2010; Annand, 2019). A recent study of nurse educators found low awareness of the CoI, but high interest in using the framework to inform e-learning design (Smadi et al., 2019).

The majority of existing research on teaching presence looks at subjects within Education, Business, Engineering, or Mathematics (Castellanos-Reyes, 2020). We were interested in analyzing the relevance of the CoI coding scheme for the health sciences, specifically for Nursing. We argue that the value Nursing historically assigns to caring as a core theoretical concept, and to presence as a therapeutic intervention, has a significant impact on teaching behaviours that sometimes coincide with, but are often qualitatively different from, those of other disciplines. Caring has been operationalized in Nursing education settings and found useful in faculty evaluation (Jarvis, 2019), and it is especially impactful to asynchronous teaching (Christopher et. al, 2020).

Some research suggests the need to refine the notion of teaching presence (Arbaugh et al., 2008), and several recent studies have used modified versions of the CoI framework to analyze specific courses (Clarke & Bartholomew, 2014; Saadatmand et al., 2017). Our own qualitative analysis of the influence of teaching presence suggested a need to similarly modify the CoI framework within health sciences and Nursing (Baker et al., 2020).

The nursing intervention of presence parallels several aspects of what can occur in classrooms. These parallel structures informed the modification of the CoI framework into the Richardson Teaching Nursing Philosophy (RTNP) (Baker et al., 2020), namely:

- **Deliberate and intentional presence**. Like Nursing presence, teaching presence is an intentional act on the part of the instructor, requiring pre-planning, implementation, and evaluation.
- **Unique relationships**. The use of presence between the nurse-patient and the instructor-student requires a relationship between the persons involved.
- **Use of self in best practices**. Presence in clinical and educational settings recognizes and uses clinician and instructor experiences and philosophies.
- **Strength-based planning.** Like nurses, instructors are charged to work with "all comers;" we treat every patient, and coach every student, regardless of abilities and backgrounds. Focusing on strengths—the student you have, not the student you wish you had—allows us to stay reality-based, and minimize rules and negative language in the syllabus and in feedback.

To further explore the concept of teaching presence in an online Nursing course, we reported the results of the quantitative portion of a mixed methods study, in a large online graduate course. We focused on instructor behaviours as they related to teaching presence, and subsequently reported student response. Specifically, we examined three factors related to teaching presence: teaching experience, maturation of teachers over time, and course and assignment objectives.

The present study was motivated by three research questions:

1. What is the relationship between teaching experience and teacher commenting behaviours?

2. How do teachers' commenting behaviours evolve over the course of a semester?
3. What is the relationship between the purpose of the course and assignments, and the resulting commenting behaviours?

Methods

Design

The study employed a qualitatively driven, mixed methods design using archived, de-identified course data (Morse, 2016). The qualitative portion of the study has been published (Baker et al., 2020) and informed the quantitative portion, reported here. Specifically, the CoI taxonomy developed and refined into the RTNP in the qualitative portion informed the research questions, the variables examined, and the conclusions drawn in the quantitative study.

Setting and Course Mechanics

We examined instructor behaviours in a 3-credit course, required in the program of study for all graduate nursing students at a large, research-intensive university in a metropolitan setting. Students were close to campus as other required courses were in person. The purpose of the course was to teach the basic tenets of evidence-based clinical practice to advanced-practice nurses. The course is delivered annually, and this was the fourth time it had been taught entirely online and asynchronously. The course was structured as five modules of content, with each module lasting three weeks. Content evolved from single applied concepts of evidence-based practice, to complex and more widely applicable concepts.

Each module contained one assignment with stated and unstated objectives. Stated objectives were posted in the syllabus and instructions for each assignment, while

unstated objectives were not visible to students. For example, Module 1 contained Assignment 1, named "Searching for Errors," with these stated and unstated objectives:

- **Assignment 1 stated objective:** "This assignment will help you learn about best practices regarding apologizing for errors, and also to conduct complex searches using two commonly-used databases."
- **Assignment 1 unstated objective:** Introduction to one best practice as an exemplar, mechanics of the course and expectations for rigor of posts and creating a safe space.

Students and teachers were randomly assigned to small, permanent groups of six to seven members. Each group used threaded discussions to address the objectives of a single assignment contained in each of the five course modules. A module lasted three weeks. During the first week of any module, students read or viewed materials and posted answers to a series of pre-set and pre-posted questions. During the second week, the instructor and graduate assistants—collectively referred to as "teachers"—read and responded to each student post within their own group forums. During the third week, students responded to comments and questions from teachers, and from each other.

Procedures and Protection of Subjects

The project was submitted to two Institutional Review Boards (IRB); both considered the study to pose only minimal risk to participants. Therefore, the research was deemed exempt from IRB oversight. Using approved project protocols, once the course was completed, all components within the course and posted data were moved out of the learning management system and into data files, where identifying information was then eliminated.

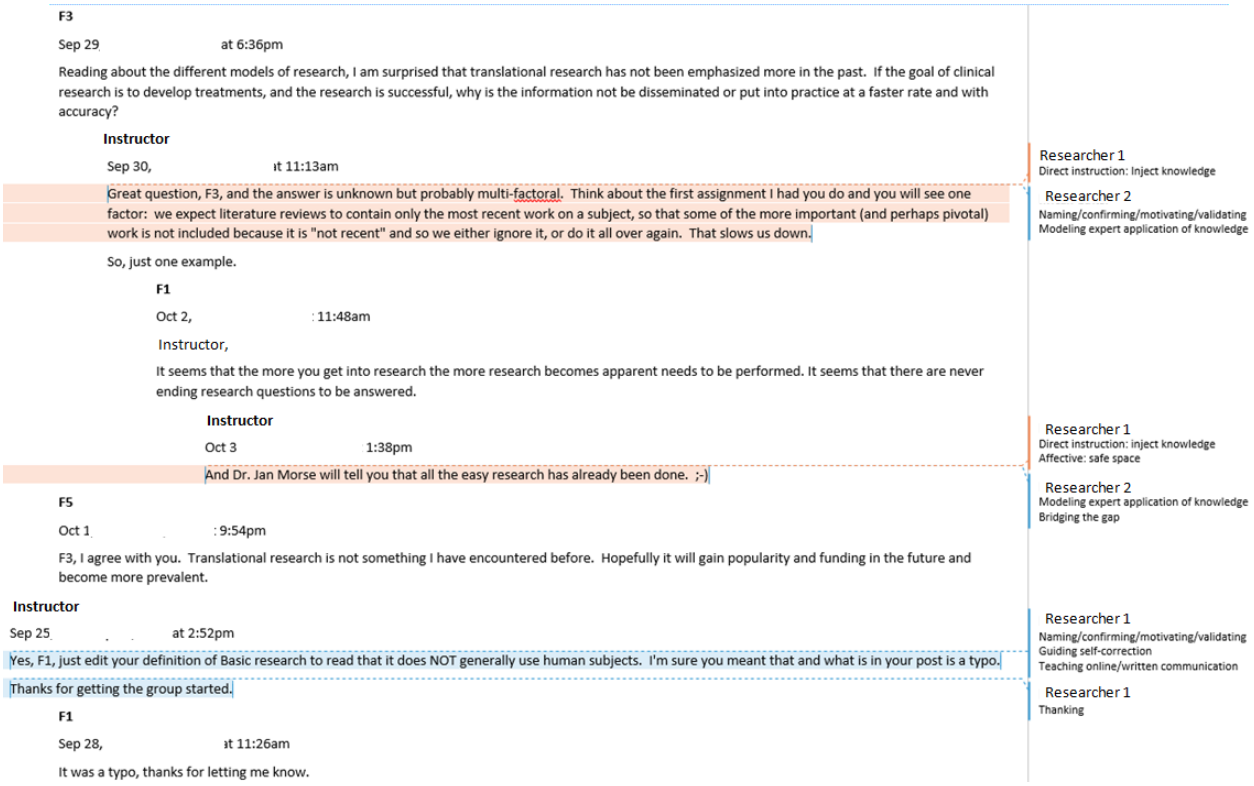
Participant names were removed from the data set. Participants were given subject identifiers associated with their group name (e.g., Falcon, Nightingale, Parrot, or Quail), and the order in which they posted in that assignment. For example, the first student to post in the first assignment for the Quail group became Q1 throughout that assignment, the second student to post became Q2, and so on. Teachers were assigned a number.

Analysis

All instructional materials were included in the analysis, including the course syllabus, assignment instruction, and discussion posts. Each paragraph marked by a "hard return" was considered one unit of analysis (Anderson et al., 2001). A post could contain more than one unit of analysis and a unit of analysis could contain multiple teaching presence codes, with some posts containing many more themes than other posts (Figure 1). Teacher posts were coded by two researchers to validate the taxonomy. A third researcher who was not involved in the course was brought in to help alleviate any bias the two researchers who were involved in the course may have had during coding.

Figure 1

Screenshot of Discussion with Instructor Comment Codes



Note. This example of the discussion includes how the authors used the Richardson Teaching Nursing Philosophy (RTNP) to code the teacher posts.

The portion of the project reported here focused on instructional content within teacher posts. Posts from teachers were pulled from all discussions and coded using variables from a revised version of the Community of Inquiry taxonomy, the RTNP (Baker et al., 2020). To facilitate analysis, the ten taxonomic themes of the RTNP were nested into the three main constructs, found in both the COI and the RTNP (Table 1): *Minding Course*

Threads (MCT), *Creating Rich Discussion* (CRT) and *Traveling the Learning Path* (TLP)[1]. Participant demographics and instructional posts were analyzed using descriptive statistics since the size of the sample, and the related large variance within it, made it impossible to analyze the data using inferential statistics.

Table 1

RTNP: Relationship of Major Constructs to Ten Taxonomic Themes

Construct	**Taxonomic Themes**
Minding Course Threads (MCT)	Providing context Maximizing student scores Teaching online, written communication
Creating Rich Discussion (CRD)	Engaging Thanking Bridging the gap
Traveling the Learning Path (TLP)	Encouraging another look, curiosity Confirming and aiming for metacognition Guiding self-correction Modeling expert application of knowledge

[1] See Baker et al., 2020 for a detailed explanation of the motivation for these three constructs.

Results

Demographics

The instructor and graduate teaching assistants were all female, while the class was made up of 20 female and 6 male students. The instructor was a PhD-prepared associate professor of Nursing with tenure, 37 years of experience as a registered nurse, and 27 years of teaching experience in higher education. The graduate assistants (GA) were all registered nurses with baccalaureate degrees, enrolled in a Master of Nursing Education degree program. Each GA had successfully completed the course in the previous semester, and this was their first experience as teaching assistants (TA) at the graduate level. However, this was not the usual TA experience in the sense that the TAs were provided with a robust system of guidance and support. Specifically, using a three-credit independent study structure, the instructor and the GAs met weekly to review the purpose of each assignment (stated and unstated), plan feedback for the students, address student progression, and encourage each other's role development.

The module design of post-response-repost over 3 weeks yielded a total number of posts—students plus teachers—for each assignment that ranged from 390 to 965. Units of analysis were contained within a post, and each unit of analysis commonly yielded more than one theme of presence. The number of themes coded within all teacher posts for each assignment ranged from 98 to 240.

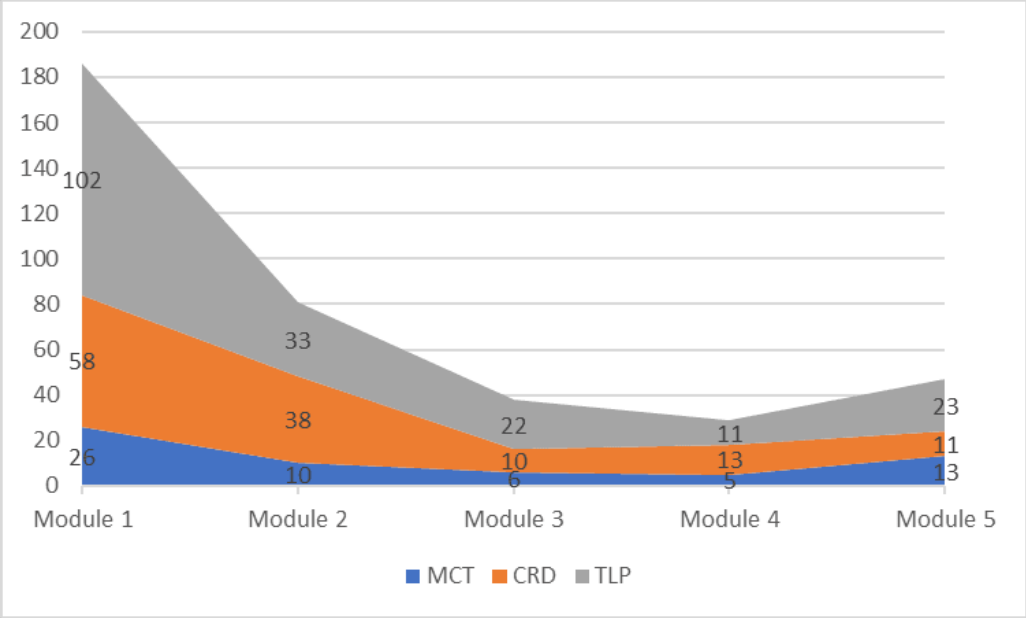
To answer our three research questions, the large number of teacher codes were examined systematically, beginning with frequencies and patterns of constructs and taxonomic types within posts for the instructor and the GAs. We found important differences in the frequencies and pattern of constructs and taxonomic types between the

instructor and the GAs. The following section addresses the numbers, patterns and percentages of comments and constructs.

While the average frequency of GA comments was never higher than 26 (in Module 4), the instructor provided up to 186 comments in Module 1 and her total comments per module was never lower than 29. The instructor also posted comments that were denser; specifically, each unit of analysis contained more themes, compared to the GAs. The instructor started the semester with a very active presence that progressively decreased in number of constructs, and later, slightly increasing during the final module (Figure 2). In contrast, the GAs showed a more uniform presence, compared to the instructor (Figure 3).

Figure 2

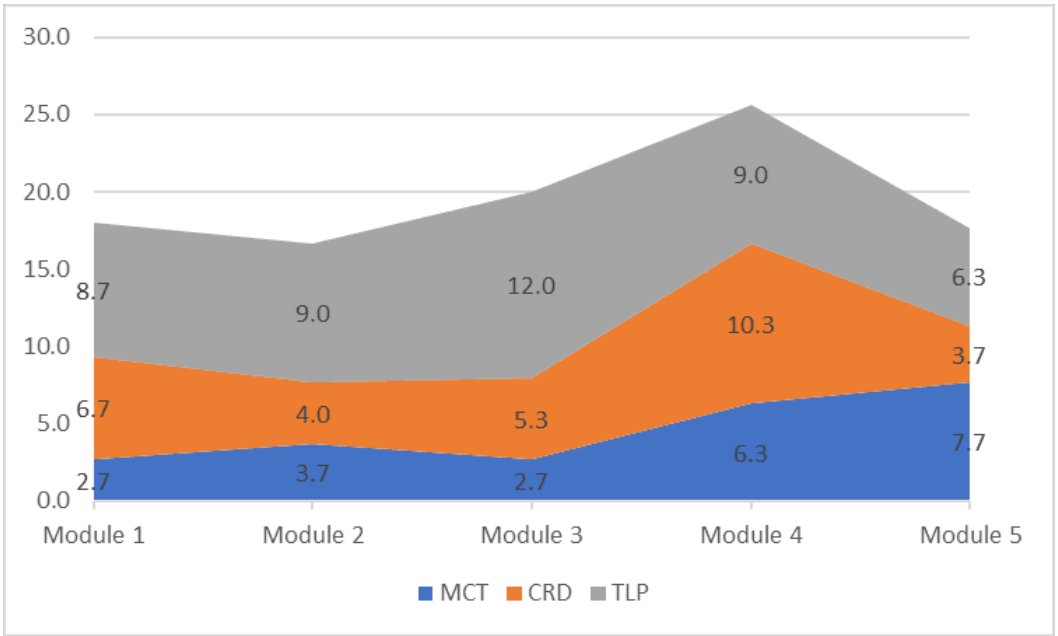
Distribution of Instructor Constructs by Module



Note. MCT = Minding Course Threads; CRD = Creating Rich Discussion; TLP = Traveling the Learning Path.

Figure 3

Distribution of Average Frequency of GA Constructs by Module

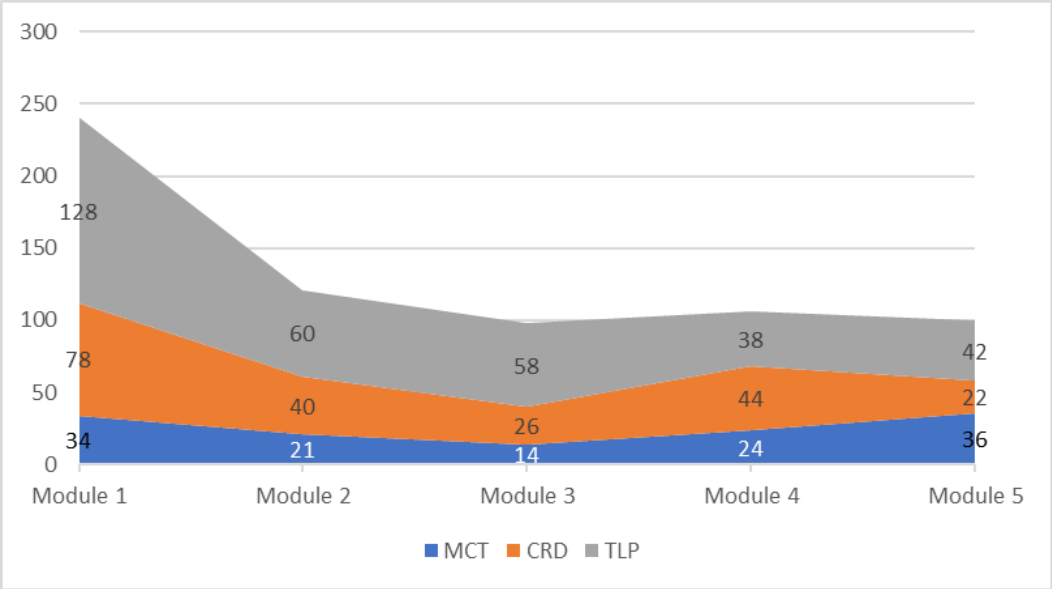


Note. MCT = Minding Course Threads; CRD = Creating Rich Discussion; TLP = Traveling the Learning Path.

In addition to changes in the frequency of comments over time, we also found an adjustment in the types of comments that all teachers provided as the semester progressed. While TLP predominated in the first four discussions, the ratio of the other two constructs, relative to both TLP and to all comments, increased in the last two modules, with no difference based on experience (Figure 4).

Figure 4

Distribution of All Teachers' Constructs by Module



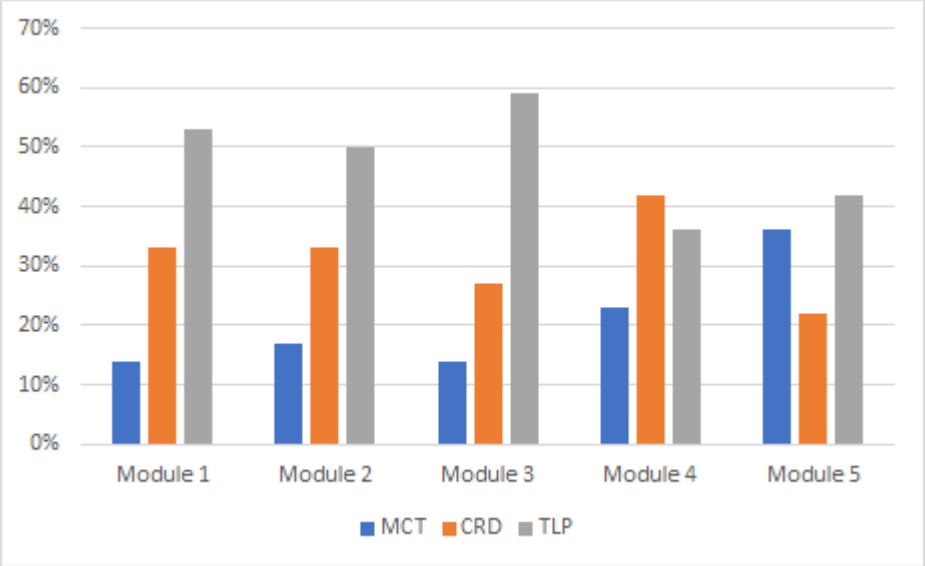
Note. MCT = Minding Course Threads; CRD = Creating Rich Discussion; TLP = Traveling the Learning Path.

When comment types and themes were examined, we found that the predominant theme posted by teachers within all modules was TLP and specifically *Confirming & Aiming for Metacognition* within TLP. The theme of *Confirming & Aiming for Metacognition* accounted for 65% or more of TLP codes in the first four modules, and 24% of all codes in the first four modules. There was no difference in TLP posting behaviours based on experience; TLP and, specifically, *Confirming & Aiming for Metacognition* was the dominant theme for all teachers.

The construct TLP dominated the first three modules, comprising 50–59% of all constructs. Within the fourth module, CRD predominated at 41%, and in the fifth module, TLP was again back at the top at 42% (Figure 5).

Figure 5

Percentage of Construct Type by Module

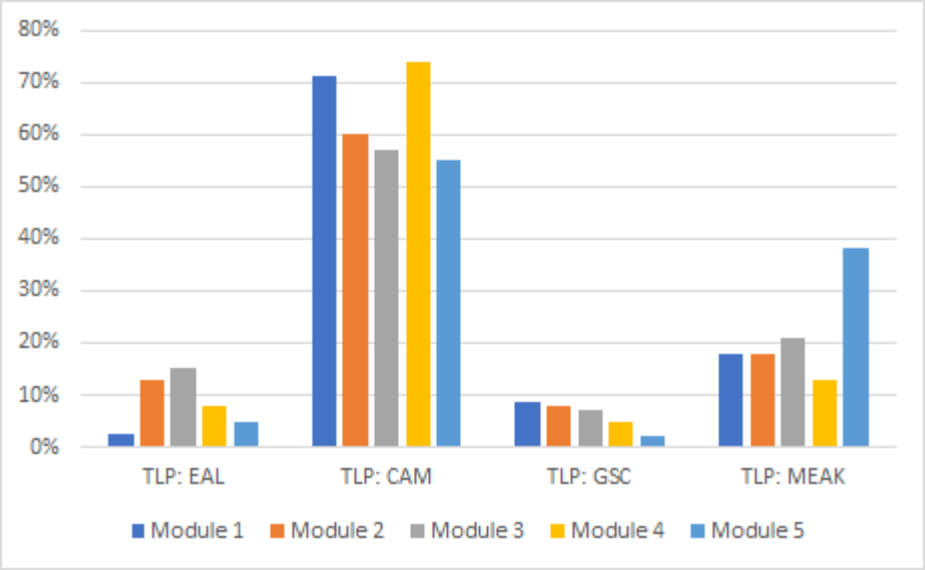


Note. MCT = Minding Course Threads; CRD = Creating Rich Discussion; TLP = Traveling the Learning Path.

A closer examination of the make-up of TLP across the course revealed that *Confirming and Aiming for Metacognition* was the dominant TLP theme in every module (Figure 6).

Figure 6

Traveling the Learning Path (TLP) Themes by Module



Note. MCT = Minding Course Threads; CRD = Creating Rich Discussion; TLP = Traveling the Learning Path; EAL = Encouraging Another Look; CAM = Confirming & Aiming for Metacognition; GSC = Guiding Self-Correction; MEAK = Modeling Expert Application of Knowledge.

For a second type of teaching presence, there was a difference based on experience. The instructor paid more attention to *Creating Rich Discussion (CRT),* and specifically to *Bridging the Gap* in all groups—particularly within the group that she led, compared to GAs. *Bridging the Gap* comments were designed to both apply knowledge and reduce the distance between student and instructor. The GAs had little need to bridge an experiential or educational gap between themselves and the students, as the GAs had just completed the course. Information-sharing between GAs/TAs and students is more effective and well-received than sharing by faculty members (Crouch & Mazur, 2001; Fagen et al., 2000; Mazur, 1997). Use of *Bridging the Gap* also may have reduced the transactional distance between student and instructor that can be found in entirely online courses (Benson & Samarawickrema, 2009; Moore, 2018).

To answer the third research question, we examined the relationship between stated and unstated objectives, and teacher commenting behaviours, beginning with the pre-posted instructions for each assignment.

We found no differences in teacher presence within the instructions for each assignment when instructional content was examined alone. The instructions for each assignment coded most heavily on *Minding Course Threads (MCT)* and specifically on *Providing Context*. The stated purposes for assignment instructions were to explain the relationship of the assignment to course objectives, relate the assignment to its application to advanced practice, and generate interest in the assignment. Consequently, we expected—and found—no difference across instruction but did expect—and found—differences in presence when instructions were compared to teacher discussion posts.

In the total number of presence codes, the first discussion generated twice as many codes (240) as the assignment with the second-most coding activity. This large initial number can be partly explained by instructor responsibility to set expectations for student participation right away, manifesting as comments that were dense with teacher presence. Density refers to the number of comments per post. The density of presence within posts gradually decreased, as modules were designed to increase student metacognition and responsibility for learning as the semester progressed. Also, the first assignment was unique in that it required a fair amount of self-disclosure from the student. It was important ethically to respond thoughtfully to these stories and to address the emotions that often arose when telling these stories. For example, a teacher responded to her group, "It is hard to admit error! I admire everyone who has posted so far, for being so honest and open—thank you!"

Teacher comments (not including instructions) in the first assignment emphasized *Traveling the Learning Path (TLP)* and specifically *Confirming & Aiming for Metacognition*. TLP comprised 53% of all comments in the first assignment. *Confirming & Aiming for Metacognition* within TLP was deliberately used to help students meet the first assignment objectives of introducing an exemplar of best practice, the mechanics of the course, and expectations for rigor, and the creation of a safe space for group learning. For example:

> *Thank you very much for sharing this example - that must have been difficult, yet it raised some important things for us to discuss.*
>
> *You wrote about it so well. I particularly appreciated how you described your immediate response—the sensation in your stomach, the impulse to fix it before anyone discovered it, the panic. Just wonderful. It sounds as if you handled yourself beautifully.*

In later assignments, TLP in general, and *Confirming & Aiming for Metacognition* specifically, decreased to a low of 23% of all teacher comments in the fifth (final) assignment. These numbers suggest that the intent to transfer the responsibility for metacognitive self-recognition to students was realized.

Contrary trends for *Minding Course Threads (MCT)* and within MCT, *Teaching Online/Written Communication,* occurred. *Teaching Online/Written Communication* comprised 10.4% of all presence codes in the first assignments and rose to 27% of total teacher codes in the final assignment. An example of this type of comment was "you also did a nice job relating your example back to the unit readings."

Although there was a strong emphasis on motivating and validating throughout all assignments, the objectives for the final assignment were not the same as other assignments, requiring a different type of teaching presence. The final assignment objectives pivoted from data analysis and interpretation of evidence to the implications

and consequences of publication of findings, including best venues and mechanics of publishing findings. The ultimate goal of the assignment as well as the course included learning to communicate well, and so *Teaching Online/Written Communication* was emphasized by teachers. Note also that the final assignment required that students provide clear, specific, and non-anonymous feedback about the course.

Overall, the level of prescriptiveness also decreased as the semester progressed, from 46% in the first module to 33% in the last module. Prescriptive comments were *Providing Context* and *Maximizing Student Scores* within MCT and *Confirming and Aiming for Metacognition* and *Guiding Self-Correction* within TLP, and typically directed the student to a different behavior. A *Providing Context* comment would be something like "Meet Dr. Morse, an expert on…" while *Maximizing Student Scores* would be more like "quick reminder that all posts for this discussion are due tonight." An example of *Confirming and Aiming for Metacognition* is "you thought about how the information in this assignment applied to more areas than we would usually consider," while *Guiding Self-Correction* is more like, "go back one more time to think about," both providing tasks for the learner to review their response. The decrease of these types of prescriptive comments over the semester is consistent with the intersection of student progression and transfer of learning responsibility from the teacher to the student.

Discussion

The most striking difference on the basis of experience was the density of comments from the instructor (compared to the GAs), very early in the course. Our findings confirmed that course settings are an important component of teaching presence (Cleveland-Innes & Campbell, 2012; Daspit & D'Souza, 2012). When student confusion manifests early, trust in teacher competence may never be fully regained, and student

learning continues to be derailed by revisiting the perception of disorganization and incompetence. When expectations for student participation, in terms of both frequency and depth, are made clear right away, the probability of successful learning outcomes increases. A faculty member with 20+ years of experience will have learned this lesson the hard way, while graduate students new to teaching likely don't realize the effort and skill required to establish the student-teacher relationship—until they have their own bad experience(s).

The GAs became more active, and their discussion posts increased in commenting behaviours and presence, compared to the instructor, as the semester progressed. Not only did the GAs read instructor posts, but they also used a similar formula as their confidence rose. The team met weekly to discuss stated and unstated objectives and what commenting strategies would best meet them. In those meetings, the instructor commonly reflected on the choices she made to move individual students forward, as did the GAs, and how teacher behavior could (and could not) influence student learning. The group also reviewed how to craft feedback to students—a component of teaching presence (Neumann & Neumann, 2010, 2016; Neumann et al., 2017)—that reflected student strengths, and demonstrated how to translate exemplars provided by the instructor into their own voice for authenticity.

Because of weekly team meetings, we anticipated more diversity in the type of presence manifested in different assignments, and as the course (and GA confidence) progressed. Weekly meetings were designed to address differences in assignment objectives and the individuality of students. Instead, discussion comments consistently focused on *Traveling the Learning Path* (TLP) and specifically *Confirming & Aiming for Metacognition*. Similarly, coding of assignment instructions showed a steady focus across modules on *Minding Course Threads* (MCT) and specifically on *Providing Context*. Although

certain types of presence dominated, it does not mean that other types of presence were absent. However, our findings that TLP and MCT dominated do suggest that group discussions are well-tailored to achieve the aims of fostering independence and metacognition (Woods & Bliss, 2016). Had this course included a variety of learning activities, such as interviews, essays, and tests, it is possible that we would have found differences in teacher presence in both instructions and feedback, based on the activity type (Johnson & Mighten, 2005; Mahram, Mahram, & Mousavinasab, 2009).

The CoI framework, with some modifications for the discipline of Nursing (namely different constructs and coding schemes), was useful and effective in this online discussion-based course. Course and instructor evaluations from students were above the mean in every category, compared to all College of Nursing courses that semester.

The use of the CoI framework reinforced a strength-based approach to both teaching and GA development. Teaching asynchronously online using a discussion format is neither intuitive nor easy, since it requires tailoring feedback for each student while staying mindful of course objectives (Johnson & Mighten, 2005; Mahram et al., 2009). The framework served as a reinforcement to focus on the student and the purpose of the course, instead of our own preferred methods of crafting a phrase, or our own development and responses to the material. The use of the framework also mirrored the use of presence as a nursing intervention—a concept that is ubiquitous in nursing theory and practice.

We wish to note that even though this course was administered prior to the onset of the Covid-19 pandemic, it was conducted asynchronously and remotely. At that time this teaching format was not as widely used and accepted as it is now. For that reason, it is possible that teaching asynchronously could have emphasized the distance between

teacher and students, as many experienced when instruction moved entirely online as schools shut down. However, use of the CoI framework helped us to focus on the students—decreasing the temporal, physical, and transactional distance between teacher and student (Benson & Samarawickrema, 2009; Moore, 2018; Stein et al., 2005). Synchronous meetings and taped feedback can personalize online student-teacher interactions, yet we found the use of the framework to be a powerful incentive for student learning and growth via asynchronous teaching. The framework may be a welcome tool for those of us teaching online because of the pandemic, whether this change is temporary or permanent, and the method is synchronous or asynchronous.

Next step(s)

One strength of the study was the randomization of students and instructors to treatment groups. However, there was no control group for comparison purposes, a finding common in educational research that has not changed since 2009 (Rourke & Kanuka, 2009). Thus, we cannot say that the patterns of behaviours based on experience, or time, or purpose of an assignment, would be different than patterns without the use of either the CoI or the RTNP frameworks. A multiple-section design would allow us to infer association more solidly between frameworks and instructor commenting behaviours.

Results also generated a question regarding the long-term effects of the intervention for the less experienced teachers. Specifically, will these graduate assistants continue to use the CoI and/or the RTNP frameworks in subsequent courses? Our next step will be to analyze our existing data set for the student response to teacher use of the CoI and RTNP frameworks.

Conclusion

We found the RTNP framework to be a useful tool for designing and developing online course assignments. The framework was particularly helpful in crafting feedback for group discussion, and for understanding inter-instructor differences regarding teaching practices in general, and more specifically the provision of feedback. We were also interested in exploring how variations in instructors' commenting behaviours may be a function of their level of teaching experience and how those behaviours might change over the course of the semester. We looked at changes in teaching presence throughout the semester considering both the changes in assignment objectives and the maturational process that both instructors and students went through as the course progressed. The GAs exhibited a stronger teacher presence as they gained experience teaching the course. Simultaneously, the level of prescriptiveness of the feedback that they provided decreased as the students progressively gained more responsibility for their own learning. The RTNP framework proved to be an effective tool to understand and describe the dynamic nature of teaching presence and the skill that successful instructors demonstrate as they adjust their presence to students' evolving needs.

Not surprisingly, assignment instructions were objectively different from feedback given to students throughout the semester. Teaching experience significantly affected the frequency of posts from the experienced instructor at particular times during a class, namely, in the first three weeks of the course. In contrast, experience did not influence the type of posted comments; both GAs and the experienced instructor exhibited similar patterns of content types as the course progressed. The project raised many questions about the student response to teacher comments guided by the RTNP. It will be interesting to see in the coming years how digitally native students (and instructors) might be guided by the framework. These individuals will have much more experience in online learning

than previous generations, and with other disciplines outside of Nursing. In summary, the framework was helpful to the teachers in multiple ways regardless of their experience. Additionally, the amount of teaching experience influenced the realization of teacher presence over the semester.

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