Evaluating Teaching Presence in an Online Nursing Course: Proposing a New Taxonomy

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Abstract: The role of teaching presence in online courses has received significant attention within the Community of Inquiry (CoI) framework since Anderson, Rourke, Garrison, and Archer (2001) proposed a set of categories of teaching presence and a tool to assess them. However, there has been limited research addressing whether the instrument proposed by Anderson et al. can adequately capture differences in teaching presence between disciplines.

This article describes a qualitatively driven, mixed-methods study to analyze how the teaching philosophy that permeated a graduate-level online nursing course determined the role of teaching presence in the course. The analysis resulted in a revised version of the original CoI taxonomy informed by the disciplinary underpinnings of the instructors' teaching philosophy in order to better capture teaching presence in this course.

The study has important implications for online teaching beyond the discipline of nursing, as it demonstrates how disciplinary factors may influence teaching practices.

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

Résumé : Le rôle de la présence enseignante dans les cours en ligne a reçu une attention particulière dans le cadre de la Communauté d'enquête (CoI) depuis qu'Anderson, Rourke, Garrison, et Archer (2001) ont proposé un ensemble de catégories de présence des enseignants et un outil pour les évaluer. Cependant, peu de recherches ont été menées pour déterminer si l'instrument proposé par Anderson et al. peut rendre compte de manière adéquate des différences de la présence enseignante selon les disciplines.

Le présent article décrit une étude qualitative, basée sur des méthodes mixtes, visant à analyser comment la philosophie de l'enseignement ayant imprégné un cours en ligne d'enseignement supérieur en sciences infirmières a déterminé le rôle de la présence enseignante dans le cours. L'analyse a donné lieu à une version révisée de la taxonomie originale de la CoI, basée sur les fondements disciplinaires de la philosophie d'enseignement des enseignants, afin de mieux saisir la présence enseignante dans ce cours. L'étude a des implications importantes pour l'enseignement en ligne au-delà de la discipline des soins infirmiers, car elle démontre comment les facteurs disciplinaires peuvent influencer les pratiques d'enseignement.

Mots-clés : présence enseignante, apprentissage en ligne, communauté d'enquête (CoI), cours en ligne d'enseignement supérieur en sciences infirmières, méthode qualitative, taxonomie de la CoI

Introduction

In the past fifty years, there has been a clear shift in educational circles from the traditional teacher-centred approach—in which teaching is seen as the transmission of knowledge—to a collaborative, co-constructed approach—in which learning is seen as a partnership between teachers and students—with the teacher playing a more *facilitative* role. However, not everyone in educational circles accepts the full swing of the pendulum as a positive change. Biesta (2012), for example, provides an excellent analysis of the situation wherein he condemns both "uneducational extremes" in order to reclaim the right (and the responsibility) of teachers to teach.

The unique characteristics of the online teaching context may in fact be the perfect catalyst for the change that Biesta advocates: a more involved role of the teacher that goes beyond supporting and facilitating learning. This reconceptualization of the teacher's role is evident in the concept of *teaching presence* as proposed by Garrison, Anderson, and Archer (2001), which constitutes the focus of our study.

The main purpose of this study was to examine the more participative role of the teacher in online discussions, and whether disciplinary factors may influence teaching practices. To that end, we analyzed the extent to which a widely accepted taxonomy to assess online teaching was adequate to capture the characteristics of teaching presence in a nursing course.

Background

The Characteristics of Effective Online Teaching

Most research concerning effective online teaching recognizes four areas that coincide with the criteria listed by the Institute for Higher Education Policy (Phipps & Merisotis, 2000) and identified by the *Quality Scorecard* published by The Online Learning

Consortium (Shelton & Saltsman, 2014), namely: student-instructor interaction, timely feedback, access to high-quality resources, and teaching presence.

Interaction between students and instructors is widely considered one of the essential elements of successful online teaching, a claim that is supported by extensive research (Arbaugh & Rau, 2007; Major, 2010; Reushle & Mitchell, 2009; Schrum, Burbank, Engle, Chambers, & Glassett, 2005; Swan, 2001; Nagel & Kotzé, 2010). 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, Neumann, & Lewis, 2017; Tricker, Rangecroft, & Long, 2001; Young, 2006).

Interaction and feedback are effective behaviours in online teaching, not because of what they do *to* the learner, but because of the cognitive changes they elicit *in* the learner. Edwards, Perry, and Janzen (2011) conducted a qualitative study to find out what constitutes an exemplary online educator compared to an exemplary classroom educator. Analyzing written narratives from graduate students in health sciences and in nursing they found that exemplary online educators were *challengers*, *affirmers*, and *influencers.* Educators challenge students when they recognize their potential and insist they meet it. They are affirmers by valuing and respecting learners and all they bring to the learning environment. And they play the role of influencers when they use their expertise and the power of the content to convey presence. Exemplary instructors are successful because they effect change. We believe that teaching presence, the characteristic of successful online teaching that is the focus of this study, is in fact an umbrella term for the three qualities that Edwards, Perry, and Janzen (2011) describe. By maintaining a high level of teaching presence, exceptional instructors are able to challenge their students, affirm their success, and influence them in ways that go beyond the content of the course.

Teaching Presence in Online Instruction

The most widely accepted definition of teaching presence is the one associated with the Community of Inquiry (CoI) theoretical framework (Garrison, Anderson, & Archer, 2001). The CoI framework has quickly become the main model applied to research in online education in Europe and North America (see, for example, Anderson, Rourke, Garrison, & Archer, 2001; Arbaugh, 2007; Garrison, 2007; Garrison, Anderson, & Archer, 2000, 2010; Garrison & Arbaugh, 2007; Pozzi, Manca, Persico, & Sarti, 2007; Shea & Bidjerano, 2009; Shea, Gozza-Cohen, Uzuner, Mehta, Valtcheva, Hayes, & Vickers, 2011; Swan & Ice, 2010; Swan & Shih, 2005; Torras & Mayordomo, 2011; Turula, 2017).

The CoI model is composed of three elements: social presence, teaching presence, and cognitive presence. Within this model, teaching presence is defined as "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). From their definition, the authors derived three categories of teaching presence that represent the behaviours instructors engage in while teaching: design and organization, facilitating discourse, and direct instruction. Anderson et al. also identified indicators that can be used to effectively measure to what extent each of the categories is present in an instance of interaction between instructor and students.

Through research conducted within the CoI framework, there is ample evidence of the positive effects of teaching presence on other measures of course effectiveness such as cognitive presence, social presence, and emotional presence or students' feeling of belonging to a learning community (Cleveland-Innes & Campbell, 2012; Daspit & D'Souza, 2012; Garrison & Cleveland-Innes, 2005; Shea & Bidjerano, 2009; Shea, Li, & Pickett, 2006; Swan & Shih, 2005). Based on these findings, we can assume that effective

instructors (those who receive better student ratings and elicit higher levels of participation) also exhibit higher levels of teaching presence.

However, research to date has not explored to what extent teaching presence may be influenced by teacher-internal factors or course-related factors such as specific disciplinary norms. Some research has suggested the need to refine the notion of teaching presence (Arbaugh, Cleveland-Innes, Diaz, Garrison, Ice, Richardson, & Swan, 2008) and several recent studies have used modified versions of the CoI framework to analyze specific courses (e.g., Clarke & Bartholomew, 2014; Saadatmand, Uhlin, Åbjörnsson, & Kvarnström, 2017). 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, Bangert, & Cleveland-Innes, 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, Parker, Gillham, & Muller, 2019). There is also new interest in how to make the CoI more visually accessible for use in online class design (Ammenwerth, Netzer, & Hackl, 2020).

In contrast to most of the existing research on teaching presence, which typically looks at subjects within education, business, engineering, or mathematics, we are 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 have a significant impact on teaching behaviours that sometimes coincide with, but are often qualitatively different from, those of other disciplines.

The concept of caring, which is essential in all nursing theory, has always been present as a moral value that informs educational theories and good teaching practice (Noddings, 2012). Caring has also received attention as a component of effective online

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instruction, including in nursing education (Robinson, Kilgore, & Warren, 2017), but not in terms of its relationship with teaching presence. One means of operationalizing caring within the discipline of nursing is through the clinical intervention of *nursing presence*. Nursing presence is an intentional act on the part of the caregiver, where, in a unique situation, one inserts one's self on the patient's behalf (Turpin, 2014). Combining the concepts of caring and presence, Mastel-Smith, Post, and Lake (2015) gathered qualitative data from nursing faculty to analyze online caring presence. They ultimately described it as "the faculty's feelings of concern for and resulting connection with students in the online environment" (p. 146). Aspects of online caring presence can be seen in the original CoI framework and in the framework that emerged in our study, characterized by a genuine interest in student success, efforts to support and reassure learners, providing caring feedback, and the value of creating community.

This discipline-specific system of beliefs and values that is characteristic of the health professions and of nursing in particular also emerged in our teaching philosophy, which we describe below. Two of the author team bring pro-nursing biases and assumptions that might make it difficult to examine contrary cases. Our third author did not bring the same assumptions and biases to the study, and instead brought a linguistics background that focused the group on content analysis.

Our Teaching Philosophy: Richardson Teaching Nursing Philosophy

Nursing presence (the clinical intervention) parallels several aspects of the Richardson Teaching Nursing Philosophy (RTNP), namely:

1. Deliberate and intentional presence. Like nursing presence, teaching presence is an intentional act on the part of the instructor. We approach the online classroom deliberately. For example, we schedule our times for entering the online classroom so these times are distraction-free, and use

specific aspects of each student's strength profile or work experience to individualize written or videotaped feedback.

2. Unique relationship. Whenever possible, we try to learn something distinct about each student, in order to tailor coaching and feedback to that student. For example, while feedback begins as templated responses, comments are individualized before sending, so that each student receives targeted suggestions for improvement.

3. Use of self in best practices. In the same way that each student is treated as unique, we allow our own experiences and "flavour" to inform our teaching. We balance this use of self by injecting creativity with the boundaries of best practices in grading, deadlines, and the like. For example, while giving feedback, each of us say essentially the same thing at the same time, but with our own voice.

4. Strength-based planning. Like nurses, instructors are charged to work with "all comers;" we coach every student to meet course objectives or outcomes, though we encounter a wide range of abilities and backgrounds amongst those enrolled in the class. Specifically, we survey students for their strengths profile, or ask them what strengths they bring to the course, and use this individualized information in our feedback to them. Focusing on strengths allows us to minimize rules and negative language in the syllabus and in our comments.

In sum, teaching presence and nursing presence are parallel concepts, and teaching presence is particularly important in online instruction. The purpose of this study is to shed light on how the CoI framework, with its emphasis on the instructor-student relationship, manifests in an online graduate nursing course, and further, how the discipline of nursing and the online environment shapes and affects the characteristics

of teaching presence in a large, online, mono-disciplinary course (Arbaugh, Bangert, & Cleveland-Innes, 2010).

Research Questions

To further understand teaching presence, we focus on a qualitative review, namely:

1. Is an update of the CoI taxonomy necessary to fully capture teaching presence in an online graduate nursing course?

2. How does the development of this taxonomy shed light on the relationship between a disciplinary (nursing) teaching philosophy and its expression in an online environment?

Methods

The study employed a qualitatively-driven, mixed-methods design using archived, de-identified course data (Morse, 2016). The mixed-methods approach addresses, at least in part, one of the limitations Annand (2019) identified, namely, using only objectivist-rational/quantitative methods to validate a constructivist-based theory. The project was designed, conducted, and reported following the criteria in the COREQ checklist (Tong, Sainsbury, & Craig, 2008). Sampling included all 26 students, the instructor, and three graduate assistants—no potential subject declined—and all instructional materials, including the course syllabus and assignment instructions. The instructor and graduate teaching assistants were all female, while the class was made up of 20 female and six male students.

Setting, Course Mechanics, and Sampling

The course consisted of five instructional modules, each lasting three weeks. Within each module, a discussion-based assignment guided the students through course concepts. The instructor and graduate assistants read and responded to every post and

student response within their own group forums. The number of posts for each assignment ranged from 390 to 965.

This was a required course in the students' program of study. Students were randomly assigned into permanent small groups of six to seven members, and the instructor and graduate assistants were each randomly assigned to one small group for the duration of the semester.

Procedures and Protection of Subjects

The project was exempt from Institutional Review Board (IRB) oversight, according to two separate IRBs. Using the project protocol approved by these IRBs, all components within the course and posted data were moved out of the learning management system (LMS) and into data files, where identifying information was eliminated.

Participant names were removed from the data set. Participants were given subject identifiers associated with their group's name (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 became Q2, and so on.

Analysis

Instructor and graduate assistant comments were pulled from all discussions and analyzed using the CoI taxonomy. Each comment marked by a "hard return" was considered as a *unit of analysis* (Anderson et al., 2001*)*.

A phenomenological approach dictated an initial read of all units of analysis, beginning with the first course module, to gain an overall impression of teaching presence. Subsequent analysis resulted in coding of content; an iterative approach allowed for refinement of coding schemes and the development of a modified taxonomy as new

concepts and themes emerged. Trustworthiness and integrity of coding were ensured through a third-person check on all proposed themes and concepts.

We first applied content analysis to derive and confirm meaning (Hsieh & Shannon, 2005). Next we used a constant comparison (Glaser, 1965) method to refine the taxonomy, paying particular attention to the themes that emerged within those concepts. We modified the existing coding schemes by (a) eliminating irrelevant codes; (b) identifying those needing modification; (c) creating codes from our new categories and refining them with member checks; and (d) applying new schemes until we achieved saturation, no new categories emerged, and internal consistency was reached.

Results

The Emergence of a Revised Taxonomy, and Relationship to the RTNP

The characteristics of teaching presence unfolded as three constructs: first, *minding course threads*; second, *creating rich discussion*; and third, *travelling the learning path*. Each construct contained themes that were closely related to each other, yet showed a distinct personality.

Minding Course Threads

The first construct, minding course threads, addressed stated and unstated course and program objectives, including fostering computer literacy and writing skills, particularly in a computer-based environment (Table 1). A final objective was mastering discipline-specific professional writing norms, i.e. APA formatting.

Table 1

Minding Course Threads

Theme	Indicator	Definition

Providing context	Background on an expert.	Providing the necessary background or introduction to contextualize the discussion. Quality indicators/outcomes.
	What the topic is.	
	Connection of the topic or expert to their experience.	Introducing the topic and content.
Maximizing student scores	Explanation of unearned points or how student did not meet assignment expectation, followed by what must be done to earn points.	Sharing and negotiating with the students the parameters of an assignment.
	Reminders of deadlines and grading processes.	
Teaching online written communication	Identification of online strategies that succeed.	Appropriate use of learning management system (LMS) functions or posting strategies.
	Identification of writing quality or writing strategies that succeed.	Providing guidelines and tips and modeling appropriate and effective use of the medium. APA as evidence, quality. Improving quality of writing.

In this study, minding course threads emerged from comments focused on helping students navigate the learning management system and the course. Comments emphasized how to succeed and established the background of the assignment in each discussion module. Comments also addressed the observed evolution of student writing, including APA mastery.

In contrast to minding course threads, the CoI originially contained two categories only (*design* and *organization*), establishing the temporal and academic parameters of the course and defining course netiquette. In 2001, when the CoI was developed, course

instruction regarding netiquette was important and necessary; 18 years later, a general "professionalism" statement in program handbooks suficces. In contrast, the new construct of minding course threads emerged with few directive comments regarding deadlines and netiquette, and comments focused on fostering success in the course in general and written and discipline-specific professional communication in particular.

Within minding course threads, three themes emerged. The first, *providing context*, consisted of comments and declaratives that provided the necessary background to contextualize discussion. Rich in descriptive language, these narratives included short biographies of the scholars whose work the students were about to engage with, often with an anecdote from the lead instructor's personal knowledge of the scholar. An example of a comment illustrative of providing context was introducing the topic and content to be discussed, as in:

> Meet Dr. Morse, an international expert on falls risk assessment and prevention.
> You have probably used the tool she created, the Morse Falls Scale….

The theme of providing context mirrored elements found in the category of "design" in the original community of inquiry framework.

The second theme, *maximizing student scores*, appeared in the course syllabus as well as in the discussion forums. Comments within this theme contained the processes of sharing and negotiating the parameters of the course and the assignment, and were a reflection of the positive mutual regard that formed a basis of the the RTNP. Instructor comments in the discussion forums included gentle reminders of deadlines, and/or explanations of how the student did not meet assignment expectations, followed by what was needed to be done to earn full points, as in:

> Your PubMed article is a report of a QI initiative - swap it out with a research
> study for full points.

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While elements of negotiating timelines are found in the C-GoI category of "organization," the encouraging nature of maximizing student scores is prominent in the discipline-based framework that emerged from this study, and it is consistent with the challenger role that Edwards, Perry, and Janzen (2011) identified in exemplary online educators. Negotiating parameters of the assignment, including content and timing, was part of the original framework. In this study, negotiations regarding content continued, but deadlines were firm (late work was not accepted). In nursing, meeting deadlines matters for maximizing patient outcomes. In the online classroom, meeting deadlines matters for maximizing student success. Meeting deadlines allows students and instructors to focus on content, building links between product and feedback.

The third theme, *teaching online written communication*, dominated minding course threads. While comments included a few remarks about APA conventions, most comments focused on improving writing and communication. The online discussion format pushed students to communicate well in order to maximize points earned and thus their success.

A prominent characteristic of the instructor comments in this theme was their positive and unique nature, which aligns with the affirmer role (Edwards, Perry, & Janzen, 2011), as in the following examples:

You wrote about this beautifully.

And:

These are the most vivid, intense memories, F4, the ones that will stay with us forever. You are not the only one writing about people you will never forget, yet I was struck with the power and beauty of your writing here.

The affirmer role paralells the supportive nature of nursing presence. Nursing presence is manifested by a singular relationship, which we see reflected in the unique nature of these comments. Compared to the CoI framework, few instructor comments addressed proper use of the LMS, except how to manage the intersection of LMS functionality and APA citation conventions, as in:

> F5, I am unconcerned about line spacing and indentation, as [the LMS system] really is difficult to work with on those. However, it will preserve word order, punctuation, capitalization, and italicization, as well as urls, and those are the things I will be looking closely at for APA congruence….

The first construct overlapped in some ways with the CoI framework in anchoring students to (a) basic mechanics of the course, and (b) foundational content. However, three themes emerged instead of two, highlighting a focus on contextual grounding, maximizing student success, and fostering online/written communication as a desired course outcome.

Creating Rich Discussion

The second construct, *creating rich discussion*, emerged from comments designed to engage participants, express appreciation for student work, and set or maintain the climate for learning (Table 2). The analogous category from the CoI framework is "facilitating discourse," also designed to address student engagement and group function. As with the CoI framework, three themes emerged from creating rich discussion, yet we found important distinctions, particularly in how teaching presence was expressed in the affective domain and the ways instructors maximized the online learning climate.

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Table 2

Creating Rich Discussion

Themes	Indicators	Definition
Engaging	Identifying discord or accord, followed by invitation to respond.	Requesting engagement over areas of agreement / disagreement identified by instructor.
	Identifying an area of consensus. Instructing to reach consensus.	Seeking to reach consensus / understanding, instructor-directed or moderated.
	Neutral interrogative, requesting a student comment.	Drawing in participants, prompting discussion, instructor neutrality maintained.
Thanking	Appreciation. May be followed with justification or specification.	Encouraging, acknowledging, or reinforcing student contributions.
Bridging the gap	Reassurance. Identification of instructor's similarity to student. Identification of universality of experiences.	Setting internal climate for learning. Decreasing the distance between student and instructor.

The first theme in creating rich discussion, *engaging*, was a mixture of instructor comments designed to (a) identify both discord and accord, followed by invitations to respond, (b) build consensus, and (c) provide neutral interrogatives. These commenting behaviours aligned with the instructor's role of challenger (Edwards, Perry, & Janzen, 2011). Engaging students in an online course typically requires a mixture of incentives and penalties (points and deadlines), as well as a directive teaching presence manifested

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in instructor comments. For example, in this data set, consensus-building instructions were contained in assignment introductions as a proactive strategy to require students to "talk to" or engage with one another, as in the following example:

> In this post, reach consensus as a group about the difference between apologizing for an error and admitting guilt (back up your statements with citations from our readings).

Identification of discord/accord, and neutral interrogatives, occurred in response to student posts as they arose within the discussion forums. Comments throughout engaging involved students in the course material and with each other, as in:

> Q4 and Q3, I think you do not agree on this point and would appreciate it if you talked this out.

The CoI framework identifies a category of "interactive" that included agreement/disagreement and steering comments; we found the former (agreement/disagreement) but not the latter. Instructor comments were neutral in terms of judgement and opinion and preserved students' agency, paralleling nurses' efforts in practice to preserve a patient's agency and choice.

In the second theme, *thanking*, comments contained an appreciative statement to the student that was followed with an explanation for the appreciation; that is, identifying why the student contribution was praise-worthy. The CoI framework assigns comments recognizing contribution to the "affective" category, including the idea that the forum is a safe space for learning. However, in this study, thanking comments emerged as a singular theme. These appreciative statements characterized the RTNP and are consistent with the role of affirmer (Edwards, Perry, & Janzen, 2011).

Thanking comments often began with an evaluative component identifying the quality of the post, followed by an appreciation. Comments ended with the rationale for the quality assessment. When comments were offered as summative-evaluative statements, they often concluded with directives regarding improvements to consider, even if the work was excellent.

> Thank you for getting the [Falcon] group off to such a great start, posting early and with an answer of extraordinary quality. Here is where you achieved excellence….

The final theme in creating a rich discussion, that of *bridging the gap*, included comments designed to reduce the distance between students and instructor that exists in land-based courses but that may be widened in online, asynchronous courses. This theme is not present in the original framework but is a vital component of both teaching and nursing presence. Presence in the classroom and clinical settings requires a connection between participants.

The data set included comments characterized by mild instructor self-disclosure; reassurances that students were not alone in their experiences or thoughts, particularly in the clinical arena; and that the instructor may have had similar experiences, with reassurance that exploration and trial-and-error in the forum was welcome, as in:

> Don't feel self-conscious about "thinking out loud" on the forum. This is a place to try out ideas after all.

Travelling the Learning Path

The third construct that emerged from this study was *travelling the learning path* (Table 3). In the CoI framework, the third category of direct instruction is the way in which "teachers provide intellectual and scholarly leadership and share their subject matter knowledge with students" (Anderson et al., 2001, p. 8). The CoI framework

category describes instructor behaviour that is more directive than participative. In contrast, the assumptions behind travelling the learning path are more consonant with what Biesta (2012) describes as the two roles of the instructor: both a resource and a teacher. Biesta describes the fundamental difference between "being taught by" and "learning from" (2012, p. 42). The balance between these two roles, in our perspective, underscores the three crucial behaviours of online teachers identified by Edwards, Perry, and Janzen (2011): challengers, affirmers, and influencers.

Table 3

Travelling the Learning Path

Themes	Indicators	Definition
Encouraging another look / curiosity	Other possibilities and explanations are presented or requested, often with rationale.	Adding depth and meaning specific to an objective or a topic. Providing examples.
	Focus the discussion to course topic.	Telling them why they have to do something (rationale).
Confirming and aiming for metacognition	Confirmatory feedback, often with explanation.	Directly assessing understanding of course materials, providing feedback with confirmation.
	Identifying student thought processes.	Developing metacognition and strengths awareness.
	Identifying student strengths.	Showing the group how their thinking came together.
	Summarizing the discussion.	Motivation as an underlying purpose.
Guiding self-correction	Corrective feedback, may include redirection.	Clarifying students' misconceptions that impair their capacity to build
	Use strengths to do better.	

		more correct conceptions and mental schemata.
		Feedback with redirection.
Modeling expert application of knowledge	Personal and experiential knowledge presented, including links & resources.	Directing students to resources for further individual or group study; saying why a thing is so.

Encouraging another look/curiosity. This is the theme where the instructors engage as challengers. This category included comments aiming to refocus or redirect the student's reasoning, often by asking probing questions or encouraging deeper analysis. When *encouraging another look/curiosity*, the instructor did not make a value judgment about the student's post, but rather engaged actively in the conversation to try to nudge the student into fine-tuning his/her thinking process. This is in contrast to the more direct and assertive role described by Anderson et al. (2001) in their category of "direct instruction," as in:

> I think you are on to something here…. Talk a little more about that, please expand.

And:

> I would also be curious to see the types of studies found, interview studies, done on providers, and how often they misread X-rays but don't talk to their patients…. What pressures are they under to correctly diagnose? What differential diagnoses do they not share with the patient? Why not?

Confirming and aiming for metacognition. The second theme corroborated the affirmer role (Edwards, Perry, & Janzen, 2011). The appending portion of these comments was often intended to promote metacognition or an awareness of the students' learning process that would be useable after the completion of the course:

You thought about how the information in this assignment applied to more areas than we would usually consider.

The CoI framework contains a corresponding category labeled "confirming understanding." Although related, *confirming and aiming for metacognition* reflects a more complex type of teaching presence, closer to the "learning from" than the "being taught by" described by Biesta (2012). With the additional component directed towards metacognition, comments within this theme were intended to address both content as well as process.

Guiding self-correction. Here, our findings diverged from the CoI framework's corresponding category of "injecting knowledge," although the role of instructor as influencer was still present. Under *guiding self-correction*, the instructor provides corrective feedback, often accompanied with some form of redirection, to clarify students' misconceptions. More importantly, guiding self-correction reflects instances in which the instructors bring up their own knowledge or experience to direct learners to specific resources that can advance their understanding:

Go back one more time to think about what was the variable of interest (it wasn't the nurses, trust me! It was something related to why or how med errors occur.). You were closer when you said that both studies "explored causes and solutions to the issues", so the DVs were probably more like causes of med errors.

Modeling expert application of knowledge. The final theme contained influencer comments (Edwards, Perry, & Janzen, 2011), for example the instructor sharing her own scholarly experience to guide students in their future academic careers. Unlike the CoI framework's "direct instruction" category, here the instructor used a more indirect strategy presenting relevant knowledge for student consideration.

Without being invested in how the student might (or might not) use the information, instruction preserved the autonomy of the student:

> F3, you asked me how I go about my literature reviews. It depends, but most commonly, I craft an outline of the study or the article and then flesh it out with some writing, so I know what kind of evidence I need and the thinking that is leading up to the purpose of the study or the main point of the article. Then I go find the evidence that I need.

> It is not uncommon for me to have to alter my writing or change parts of the study or the paper, based on what I find, but that, I think, is good science. It forces me to keep an open mind.

Discussion

1. Does an update of the CoI taxonomy more elegantly capture teaching presence in an online graduate nursing course?

Our study revealed that some components of the CoI framework were appropriate in the context of this course, albeit with some modifications, while others needed to be removed or reworked. The analysis of our data also justified the addition of new categories that could capture aspects of teaching presence not conveyed by the original framework.

Adapting and Repurposing CoI

The most durable portions of the original teaching presence framework were aspects of encouraging student involvement and interaction. Successful questioning and prompting techniques that assist learners to deepen discourse are well documented. Imparting knowledge through curating content and demonstration of expertise are also time-worn teaching tools.

Components that were removed. Data analysis supported discarding teaching presence constructs and themes stressing netiquette, navigating the learning management system, and responding to technical concerns. The maturation of learning management systems, instructional technology support, and student-instructor familiarity with online environments may all be combining to eliminate the need for instructional teaching presence regarding computer software and hardware concerns.

Finally, data analysis did not support retaining the category of "injecting knowledge" as a means of direct instruction. Instead, teaching presence that shared expertise and knowledge within forums was characterized by instructors as divulging how they would have managed a situation or tagging onto a comment about where they tended to go for information supported a theme named *modeling expert application of knowledge*. This difference in themes (injecting knowledge compared to modeling the expert application of knowledge) may have been a reflection of a philosophy relying on guiding the learner towards discovery and connection-making. The data in fact supported modeling behaviours of the expert learner as well as encouraging student academic strengths. Modeling behaviours are congruent with the influencer role mentioned in Edwards, Perry, and Janzen (2011).

Re-worked categories. All aspects of the framework required some level of re-working, but in particular "facilitating discourse" received the bulk of our attention. The original CoI section of facilitating discourse contained three categories (cohesive, interactive, and affective), covering six different indicators. Our work changed the categories into three overarching themes, *engaging*, *thanking*, and *bridging the gap*, that captured the essense of *creating rich discussion*. In our revision, "group cohesion" and "managing emotion" were much less important than engagement with course material and moving students toward excellence. We collapsed what Anderson et al. (2001) called "interactive and cohesive comments" into our theme of engaging which has the

purpose of challenging students to respond to content and to their peers by using neutral interrogatives and consensus building strategies. Teaching presence here focuses on getting the students to engage with each other, and not as much with the instructor. In the online learning environment, it is easier for participants to focus on the content and what the instructor wants, but more challenging for them to engage with each other. Therefore, engaging aims to first direct students to talk with one another by providing explicit directions, and then to identify areas of accord/discord to discuss and resolve.

Data analysis most clearly supported transitioning the CoI's category of "affective comments," which included "acknowledging" indicators, to *thanking* as a technique to create rich discussion. Previously combined with aspects of managing affective content that included rules about confidentiality and politeness, in the emerging framework thanking developed into a strong and singular theme, which saturated quickly. One of the most striking aspects of thanking was its linked nature: an appreciation never stood alone but was always followed by the specific reason for the appreciation and/or what students might do to gain greater understanding. This coupling of appreciation with a specific assessment—or assignment—moved the comment from civility to instruction and mirrored the affirmer role of Edwards, Perry, and Janzen (2011). Because thanking comments were offered regardless of prior course performance, this theme was a manifestation of the unconditional positive regard that characterizes the intervention of nursing presence, and a combination of caring and teaching presence (Doona, Haggerty, & Chase, 1997).

The final theme, *bridging the gap* identifies commonalities between student experiences and between student-instructor experiences. It is possible that comments in this category were an attempt to compensate for the absence of physical proximity that is critical to the implementation of nursing presence. These changes in the framework

were congruent with maximizing strengths and potential, as well as with the challenger role identified by Edwards, Perry, and Janzen (2011).

Bridging the gap comments are consistent with knowing your nursing self and your teaching self, and bringing that awareness to your work. The emergence of this theme, reworking the CoI's "safe space indicator," may indicate a maturation of online instructor presense that reflects advancements in the field and increasing comfort of teachers and students with the environment.

   Adding to the CoI. Finally, the original framework described "direct instruction" with no categories but six indicators, while our analysis supported direct instruction as a type of teaching presence composed of four categories and named *travelling the learning path*. Since the discussion format is student-centric, it is fair to de-emphasize direct instruction as an aspect of teaching presence. *Confirming and aiming for metacognition*, plus *encouraging curiosity* were two prominent categories. Confirming and aiming for metacognition was primarily derived from instructor comments, while encouraging curiosity was particularly found in the presentation of assignments and selection of readings. Our additions to the CoI both refute and amplify a limitation idenitified by Annand (2019), namely, discussion by itself may not be sufficient for learning, as Garrison (2007) originally asserted. We found that a strong, sustained, and theory-based instructor teaching presence was associated with deep learning in a discussion format.

The development of the two categories—confirming and aiming for metacognition, and encouraging curiosity—within travelling the learning path may be explained by the philosophical emphases of the instructors involved in the study, and their disciplinary background. Teaching presence and nursing presence both require deliberate action while simultaneously respecting the person's individuality and unique nature.

Supporting inquiry that optimizes student achievement is a goal that parallels the nursing clinical goal of maximizing potential, no matter the situation and across the lifespan. Nurses and nursing instructors may blend the roles described in Edwards, Perry, and Janzen (2011) to plan activities that will move the other towards a mutually-understood goal.

2. **How does the development of this taxonomy shed light on the relationship between a disciplinary (nursing) teaching philosophy and its expression in an online environment?**

Four aspects of the RTNP influenced the manifestation of teaching presence in the online classroom. The first aspect was the *deliberate and intentional nature of teaching presence*. Instructors took care to remind students of deadlines and coached them to their best work. Feedback prompt sheets used by all instructors included student strength profiles, and reminded instructors to begin a comment with the student's name and incorporate one or more of their strengths.

The second aspect of the RTNP capitalized on the *unique student-instructor relationship*. Often, the entrée into individuality was the student's work history, allowing the instructor to connect professionally over the same specialty, make a mental construct of the student, or assist the student in bridging course concepts into the student's current work setting for added impact.

Use of self in teaching presence manifested as the third part of the RTNP through each instructor's own voice in how they created rich discussions. Use of self (each instructor's vivid personality) was apparent in individualization of templated comments and was conspicuously absent in grading rubrics, course objectives, and activity objectives, where creativity and individualization was not welcome.

The fourth and final philosophical construct was *maximizing learner's strengths*. The language of expectations and directions in the syllabus and comments to students were relentlessly positive, even when comments sought to guide students away from an error or toward an optimal achievement.

The course was set up to manifest the RTNP. Structuring the modules over three weeks allowed for deep dives into content and connections across people and ideas. Separating students into small discussion groups enabled intense conversations with students within the small-group forums. Surveying for strengths profiles using a nationally-available and validated tool helped us focus on maximizing potential in our formative and summative comments. These four practices did many things for the course that did not always directly coorelate to a specific outcome, but overall added to the new framework.

Conclusions

The emergence of technology as an essential component in almost every teaching setting has resulted in a re-evaluation of the role that the teacher plays in the learning process. In particular, the spread of online teaching has resulted in an increased interest in identifying the characteristics of effective teaching presence in online courses. However, there has been limited research looking at whether teaching presence is a stable and constant concept whose characteristics are invariable regardless of the context to which it is applied, or rather a fluid abstraction that is manifested in different ways that are highly discipline specific. In an effort to address this question, our study took as its point of departure the most widely accepted framework to analyze teaching presence, the CoI taxonomy. We wished to determine whether the CoI model adequately captured the features of teaching presence that emerged from the analyisis of an online graduate nursing course.

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Our study focused on a discussion-based online course. Facilitating student engagement and directing student learning throughout discussions were prevalent teaching behaviours that were also well captured in the CoI framework. This finding confirmed that students both learn from and are taught by the teacher (Biesta, 2012). In contrast, we did find a number of areas in which the instructors in our study exhibited behaviours that differed from those captured in the CoI. This was most evident in the case of behaviours that sought to reduce the distance between teacher and learner and behaviours that emphasized and built on students' existing strengths.

We suggest that the differences between the original CoI scheme and the one that emerged from our analysis are due to the disciplinary underpinnings of the instructors' teaching philosophy. The features of teaching presence that emerged in this study illustrated the three characteristics of effective online teachers—challengers, affirmers and influencers—that Edwards, Perry, and Janzen (2011) identify.

Our study has a number of inherent limitations that need to be acknowledged. First of all, the study analyzed a single course taught at a specific institution classified as very high research activity (R1). The course setting and the personal characteristics of the instructors involved are likely to have played a significant role in the aspects of teaching presence that emerged from the analysis. The retrospective method and convenience sample are not as strong as prospective methods and any design that would incorporate randomization. These concerns limit the transferability of our results to other settings and arguably to other disciplines. In order to validate the claim that teaching presence is discipline-specific, and the proposed modifications to the CoI framework, additional research would be needed that compares courses across a variety of disciplines and taught in different settings, introducing randomization and control.

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