CrossMark

Communities of Inquiry in Online Nurse Practitioner Education

Laurie Posey, EdD, Sandra Davis, PhD, ACNP-BC,
Linda Briggs, DNP, ACNP-BC, and Brenda Sheingold, PhD, MSOD

ABSTRACT

To become competent clinicians, nurse practitioner students must learn to think critically and interact effectively while applying advanced knowledge to complex situations. The Community of Inquiry framework is a prominent model guiding the design and assessment of online learning. In this study, the interrelated components of a Community of Inquiry—teaching, social, and cognitive presences—are analyzed in the context of four online nurse practitioner learning activities that used different teaching strategies to promote critical reflection and dialogue: asynchronous discussion; synchronous presentations; collaborative projects; and VoiceThread. The results of this analysis can assist nurse practitioner educators in developing high-quality online learning experiences.

Keywords: cognitive presence, collaborative learning, community of inquiry, critical thinking, diagnostic reasoning, discussion facilitation, nurse practitioner, online education, online teaching strategies, practical inquiry, social presence, teaching presence

Nurse practitioner (NP) students must develop the ability to think critically and interact effectively while applying advanced knowledge in the context of complex situations. To enable achievement of such higher order learning objectives within distance-based NP programs, educators must take full advantage of the online learning environment to engage communities of learners in critical thinking and collaborative problem-solving. A useful model to guide the design of learning experiences that support learners' critical reflection and engagement within collaborative online learning experiences is the Community of Inquiry (CoI) framework. In this study, the interrelated components of a CoI—teaching, social, and cognitive presences—are analyzed in the context of four online NP learning activities that used different teaching strategies to promote critical reflection and dialogue.

BACKGROUND

Originally developed as a means of studying higher order learning in text-based computer conferencing, the CoI framework has emerged as a prominent model guiding research related to online learning activities to support critical thinking. The model depicts the online learning experience as an integration of three dynamic and interrelated presences. *Cognitive presence* refers to learners' ability to construct and confirm meaning through individual reflection within online dialogue; *social presence* refers to the extent to which learners perceive themselves as real and connected to others within the dialogue; and *teaching presence* refers to the purposeful design, facilitation, and direction of cognitive and social learning to achieve deep, meaningful learning outcomes.[1] An interactive diagram of the CoI framework along with examples illustrating each of the three presences is available online at https://coi.athabascau.ca/coi-model/an-interactive-coi-model/.

The CoI model is grounded in John Dewey's theory of practical inquiry in which learners move cyclically through a process of cognitive reflection and interactive dialogue when engaged in higher order learning tasks.[2] The CoI model reflects a social constructivist approach to teaching and learning in which learners actively construct meaning as they engage with others in the inquiry process.[3] As illustrated in Figure 1, practical inquiry begins with a triggering event (eg, task or problem) that creates dissonance and prompts learners' exploration of new

Figure 1. Practical inquiry model.
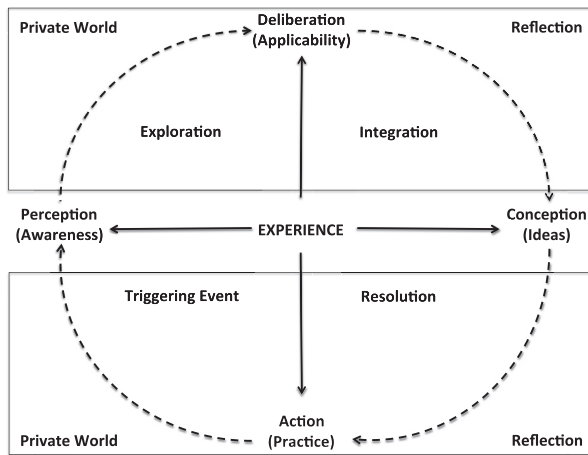
From Garrison.[11]

information and knowledge. Through deliberation in a collaborative dialogue, learners move toward integration as they make sense of what they are learning. The fourth phase of the cycle is resolution of the issue or problem as learners have an opportunity to apply or practice what they have learned. Success or failure of the application process determines whether or not the inquiry cycle continues.[1]

The four phases of practical inquiry—triggering event, exploration, integration, and resolution—constitute a learners' cognitive presence within the learning experience. Social presence, evidenced by emotional expression, open communication, and group cohesion, is essential for a productive collaborative dialogue through which individuals explore and integrate new knowledge. Teaching presence, including instructional management, building understanding, and providing direct instruction, supports both cognitive and social presences within the practical inquiry cycle.[1]

To provide a means of gathering evidence of cognitive, social, and teaching presences within an online learning community, Garrison et al[1] developed a coding template that included categories and sample indicators for each type of presence (Table). In addition to qualitative assessment of the asynchronous dialogue, the template can be used as a guide for educators in designing high-quality online learning activities that promote deep levels of learning. Educators should consider each type of presence and recognize their roles in designing activities and facilitating social

presence to support learners in moving successfully through all phases of practical inquiry (ie, cognitive presence).

The CoI framework has supported the design and assessment of quality of online learning at the program, course, and learning activity levels. Swapna and colleagues[4] applied the framework to the design and evaluation of a cohort-based doctor of education program that included online courses, on-campus experiences, inquiry groups, and asynchronous sessions. Student responses to a survey of faculty instruction and feedback (teaching presence); support, learning environments, and community-building (social presence); and application of student learning (cognitive presence) were highly positive, supporting the use of CoI for the design of effective online programs. In a study of 55 online courses within an master's of business administration program, Arbaugh[5] empirically validated the distinct existence of cognitive, social, and teaching presences, and later developed the 34-item Community of Inquiry Framework Survey.[6] Application of the survey within a graduate-level online course revealed high mean scores for all three CoI elements and supported the use of CoI as a framework for course design.[7] At the activity level, Kanuka and colleagues[8] examined the degree of cognitive presence as an indicator of discussion quality within five different types of activities and concluded that more structured activities prompting students to confront each others' opinions resulted in higher degrees of cognitive presence.

Teaching presence appears to be an important factor in promoting cognitive presence and deep levels of learning. Garrison and Cleveland-Innes[9] studied the effect of different levels of instructor involvement on three different student approaches to learning: a surface approach, characterized by minimum effort to realize minimum outcomes; a deep approach, characterized by learner involvement in material in a search for meaning; and an achievement approach, characterized by motivation to achieve the highest grades. The authors found that learners in courses with a high degree of teaching presence were more likely to adopt a deep approach to learning. Lending further support for these findings, Prasad[10] examined the relationships between critical thinking and teaching presence in an asynchronous discussion and found that teaching presence resulted