

Critical thinking in the Online Classroom

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This is part 3 in a 3 part series discussing the concept of 'presence' in online learning communities. I've been writing about *online presence* in this series and though complex, it is best understood by the [Community of Inquiry](#) (CoI) model, a framework of three dimensions that work together to create what I call a *complete learning experience* (though the creators of the model call it an 'educational experience' where all three coincide (Garrison et al., 2000). In part one, I reviewed [instructor presence](#) and part two, [social presence](#). Though this third dimension is officially labeled '*cognitive presence*' I have made reference to *critical thinking*, as this is what should be happening in the cognitive presence domain, which I'll elaborate on further in the post. I'll also provide several examples of what cognitive presence *looks* like (or sounds like as I'll be using actual student feedback to illustrate), and for those interested, practical strategies to build and support cognitive presence (critical thinking) in an online learning community.

What is Cognitive Presence?

I thought social presence was the most abstract and elusive, but I was wrong, it's this dimension, *Cognitive Presence* that is the hardest to get my head around and put on paper. It's in this dimension where all the action is – where the student *learns - thinks critically* – he or she goes through the process of constructing knowledge, inquiring, exploring, and thinking. This model is interesting, as it illustrates how other aspects of presence, social and teaching presence need to exist before critical thinking skills are engaged and deep learning can happen. Though CoI is a model (or theory), I do see how it works in real life learning communities, based upon my analysis of student feedback, engagement levels (measured by LMS activity) and retention numbers of our online student body at my workplace. Granted, some level of learning can happen without either social or teacher presence, yet to create the very best environment for learning online all three dimensions are necessary.

Cognitive presence: is the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse (Garrison, Anderson, & Archer, 2001).

How does cognitive presence lead to critical thinking?

There are four categories of events within the cognitive dimension that need to happen to stimulate the cognitive processes and critical thinking, 1) triggering event, 2) exploration, 3) integration and 4) resolution. These are nothing new from the educators perspective – we want the student to become interested, in the topic (*trigger*), and be motivated to explore, ask questions, discuss (*exploration*), leading students to construct knowledge, learn and think by means of discourse and discussion (*integration*) and finally to think critically, apply the knowledge to other areas, draw conclusions and demonstrate knowledge (*resolution*).

These events do not need to happen sequentially, they may overlap and run into one another – it might get messy, but all this to illustrate the need for meaningful interaction and discourse that supports the student's development of higher order thinking skills.

Strategies for developing Critical Thinking

Creating opportunities within the course for these above mentioned events to happen takes planning, it is part of the instructional strategy, the course design. However, It does not have to be complicated, or time-consuming to develop – but intentional and purposeful. Here are some examples of types of activities that support cognitive presence.

- **Discussion forums** that include meaningful and thought-provoking questions that get students to think and apply the course content. Clear participation guidelines and expectations for students are an important part of the activity. Instructor involvement will be needed to monitor and guide the discussion.
- **Small group activities** where students discuss a topic, even a complex one – with the goal of creating something together – for example, a [unified] position statement on a controversial topic *OR* an analysis of a problem [in the form of a presentation] that involves applying the course content and drawing upon other resources.
- **Forum structured for a debate** – this takes some upfront work – but is worthwhile. For example, the instructor assigns each student one of three points of view on a given [controversial] topic, prompting students to engage in discussion/discourse through an asynchronous discussion forum [or live chat] defending their assigned point of view, *even if they do not personally support that point of view*. This can be effective, as it encourages students to appreciate diversity, acknowledge others' perspectives and points of view different from their own.
- **Reflection Activities** – having students create a blog to work on throughout the course is one example, where students discuss and write about what they've learned in class. This is effective in promoting thinking, and getting students to internalize content. Other reflection activities could be as simple as students creating a [Slideshare](#) or [Prezi](#) presentation, blog post, or forum posting at the end of the course describing the critical things they learned from the class, how the class might have changed his or her thinking and/or how they will apply the new knowledge beyond the class.
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A study reported in the *British Journal of Educational Technology* in 2007 on cognitive building activities similar to those mentioned above, determined factors contributing to the activities success:

1. They were well structured.
2. They provided clearly defined roles and responsibilities for the students.
3. They provoked the students to explicitly confront others' opinions. ([Kanuka et al., 2007](#)).

What the students say...

You may be thinking, OK sounds good in theory but does this really work with students? Yes I believe it does – after reading through student responses from our last session in our online program at my workplace I was convinced more than ever, not only of the value of the instructor and his or her presence, but that discussion forums and group activities do develop critical thinking, promote deep thinking and engage students' higher order thinking skills. Below I've shared feedback from students, which are responses to the question "*What did you like best about the course?*"

"I liked how certain questions were asked and then I was allowed to think about them. Then when I came to the conclusion that I was not sure, Dr. ____ then took us to the [course materials] to draw our conclusions..." [Discussion forums encouraged critical discourse].

"I loved the challenge of this course to compare philosophy [from different viewpoints].... The choice project was awesome being able to watch films and converse about their philosophical meaning was very fun." [Comparing activity forced use of critical thinking]

"Probably the responses required by students after the reading assignments ... it made me think deeply and apply my answer not only to the material, but to other [areas] as well." [This reflection activity supports analysis and deep thinking].

These are *real* student comments, though I've removed professor names, and references to specific course materials to protect privacy of students.

In this post, I've just scratched the surface of what can be done in this presence domain, as there are factors to consider that I've not been able to address, for example course topic, delivery platform, course duration, number of students etc. But hopefully I've given you some ideas for supporting and promoting critical thinking within your own online courses.

Resources:

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2-3), 87-10

Kanuka, H., Liam, R. & Laflamme, E. (2007). The influence of instructional methods on the quality of online discussion. *British Journal of Educational Technology*, 38(2), 260 – 271.