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'Communities of Inquiry' in Online University Courses

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My practice as an educator has been significantly influenced by Garrison and colleagues' *Community of Inquiry (CoI)* framework (Garrison et al., 2000) which consists of three interdependent presences - teaching presence, social presence, and cognitive presence (see Figure 1). At the framework's centre (where the three presences overlap) is the educational experience which is the proper object of course design, development and delivery.
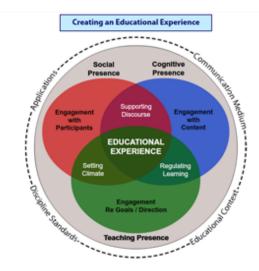

Figure 1. *CoI* model. Communities of Inquiry website (2013). Used with permission. Retrieved from https://coi.athabascau.ca/

Over the past decade-and-a-half, *CoI* has emerged as a widely used framework for teaching and learning in blended classrooms (i.e. face-to-face with a robust online component) and in fully online learning settings, particularly in higher education.

I had the opportunity to work with Dr. Garrison during the first two years of my doctoral work at the University of Calgary. My thesis (in progress) focusses on the exploration of social presence - "the ability of students in the Community of Inquiry to project their personal characteristics into the community, thereby presenting themselves to the other students as 'real people'" in Massively Open Online Courses (i.e. MOOCs) (Garrison et al., 2000, p. 89).

In choosing to purposefully implement the *Community of Inquiry* framework into two online university courses, I hope to enhance the extent to which the three presences contribute to a rewarding, engaging, and academically challenging educational experience which is relevant to students' professional and academic careers. Implementing a *CoI* approach has required me to redesign one course significantly. In the case of the second course, I needed to create it from little more than a title and a calendar description. Addressed to a degree in the design of both courses is the use of Krajcik and Blumenfield's (2006) five "key features" of project-based learning (PBL):

- *Driving Questions*: Meaningful questions that are "anchored in real-world situations" (p.321);

- *Situated Inquiry*: Practice that mirrors academic/scientific/ professional processes;

- *Collaboration*: The learning environment becomes a community;

- *Learning Technologies*: Using tools to actively create knowledge;

- *Artifacts*: "External representations of constructed knowledge" (p.326).

In this monograph, I will make explicit some of the choices I have made while designing and developing the two online courses.

Institutional Setting and Student Profile

The University of New Brunswick (UNB) is a comprehensive university with about 10,000 students across two campuses. The Faculty of Education offers undergraduate and graduate programs in a wide range of specializations to approximately 650 students. Of this number, approximately 200 are enrolled full-time. The 450 or so remaining students study part-time. The focus of the B.Ed offerings is on training and certification to teach in Canadian public schools. The graduate education programs (Masters and Ph.D) include a wide range of online offerings to support the many students who are studying from a distance.

Course Descriptions

The description for the graduate ED 6228: Designing Instructional Materials course is as follows:

> This course is intended for instructional designers, teachers, trainers, and others who want to learn how to present and structure instructional information in worksheets, manuals, and online lessons in order to promote learning. The course includes an overview of research-based theories and principles, and opportunities

to apply those principles to the creation of effective instructional communications for a variety of learners, content areas, and contexts.

This is an elective course situated within the Instructional Design area of study.

The description for the undergraduate ED 4113: Introduction to Distance Learning in Adult Education course is as follows:

> Provides an opportunity to explore and become familiar with currently available learning technologies to deliver distance education programs and courses. Use of these technologies will be required throughout the course.

This is also an elective course which can be credited towards one of three certificates and degrees in Adult Education.

D2L Learning Management System

UNB's Faculty of Education uses Desire2Learn (D2L) as its learning management system (LMS).

D2L, similar to other LMSs, has the following features which can be incorporated into the delivery of blended and fully online courses:

- Content areas: For sharing textual information, files, and multimedia;

- Discussion threads: Public and private (which can be locked after certain dates);

- Dropbox: For accepting and returning assignments;

- Gradebook: For administering and returning grades;

- Quizzes and surveys;

- News: Course announcements;

- Customizable templates; Mappings between elements; and the setting of appearance and interface preferences.

In addition to the above, D2L collects user analytics which, for example, permit the instructor to see how frequently individual students have logged in and which content students have accessed.

Preparing for Summer 2016

Once I was hired to teach ED 6228 and ED 4113, I spent several days brainstorming possibilities and making notes related to how I thought the courses should ideally be taught and how they should be integrated into D2L.

Preparing the Syllabus

In both instances, the implementation of PBL began with the course syllabus.

The following steps were taken:

- I inserted a definition of PBL and a rationale for its use;

- I wrote specific learning objectives for the course which could then be tied to individual assignments;

- I created learning activities which were aligned with Krajcik and Blumenfield's (2006) five "key features" of PBL;

- I set expectations for collaboration and participation through a 'participation' grade and through the design of participatory learning activities.

By developing the two syllabi in tandem (albeit for two very different courses), I was able to work with one master course design template which I could then alter as needed for each course.

Course Design

I requested from IT Services a D2L 'sandbox' course for each course. The sandbox courses were used for design and experimentation purposes and to build the formative versions of both courses. After I was comfortable with the content and format for both courses, I exported their respective sandboxes into the "live" course shells that students would have access to.

Choice of Media

I felt from the outset that it was important to increase the level of social presence within the course. As an element of the *CoI* framework, social presence refers to:

> the ability of students in the Community of Inquiry to project their personal characteristics into the community, thereby presenting themselves to the other students as "real people."…It is associated with categories of indicators including emotional expression, open communication, and group cohesion. (Garrison et al., 2000, p. 89 and 102)

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I also wanted to reduce the amount of text which students needed to work through in terms of the course directions and notes. In my opinion, and based on past experience, having large sections of text detracts from the course content and leads to frequent email and discussion queries for clarification. For these reasons, I decided to make use of video as a key component for these courses. Initially, this took the form of a brief introductory clip which appeared in a 'Getting Started' folder at the beginning of each course. Through the video, I provided an overview of the content and format of each course. I also posted an announcement which

appeared in the news area of each course directing students where to go to find resources within the D2L shell.

Complementing the decision to make greater use of video, I also felt it was important to build in opportunities for synchronous (i.e., formally scheduled) student engagement. For this reason, I have scheduled three online conferencing sessions over the six-week term. These optional sessions will be delivered through Adobe Connect. They will occur at the beginning, middle, and end of the course. I will make myself available for one hour at a time. Through these sessions, students will have the opportunity to discuss the course content, clarify expectations, ask questions, or simply chat with one another. This will hopefully build social presence within the group and help model good practices in online instructional design.

Guidelines for Collaboration and Interaction

While the D2L LMS boasts numerous tools through which to facilitate course-related communication that enhances social presence, I felt it was also important to encourage collaboration on course assignments in the following ways:

- in ED 6228, students can choose to work together individually or in groups for all assignments, including the final project;

- participation is graded. This includes contributions to the project team in instances where students choose to work in groups;

- students are required to prepare a cover sheet for each assignment making their individual work contributions to their project team explicit (e.g., stating who completed which tasks);

- in ED 4113, students are required to post their works-in-progress and respond with constructive feedback to their peers' work;

- in both courses, students are required to evaluate their own participation and justify their evaluation. This includes detailing the extent to which they collaborated effectively with their colleagues.

In so far as education is a collective enterprise, I have tried to design assignments and other learning activities which incorporate the kinds of ongoing, multi-modal, collaborative tasks that are part of the workflow of instructors in a wide range of roles and settings. Concurrently, I have endeavoured to grant students the autonomy to choose who they will work with and the workflow processes they will follow. Students in both courses also have their choice of deadlines for the weekly reading and writing assignments. I will also be conducting periodic surveys in order to capture small samples of anonymous feedback related to students' experiences within the course. This will permit me to make adjustments to deadlines, course direction, and to help gage students' overall course experience throughout what is a highly compressed summer term.

Conclusion

As the summer 2016 semester begins, I am looking forward to seeing both courses unfold. Students have had access to the introductory video, electronic course text and syllabus for nearly two months. (I placed a link to a publicly accessible Google-folder with these materials in an email sent via D2L's messaging system.) As well, I opened the D2L shell to students nearly two weeks before the official launch of the course. While it remains to be seen how successful the new course design, evaluation scheme, and delivery approach will

be, I am cautiously optimistic regarding its potential for success. Assuming that the approach proves viable, I will refine its implementation for summer 2017 and seek to engage in an Research Ethics Board-approved study to investigate both courses further.

References

Garrison, 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), 87-105.

Krajcik, J. & Blumenfeld, P. (2006). Project-based learning. In R. K. Sawyer (Ed.), *The Cambridge Handbook of the Learning Sciences* (pp. 317-334). New York, NY: Cambridge University Press. (Chapter 19)

Reigeluth, C. M., Watson, W. R., Watson, S. L., Dutta, P., Zengguan, C., Powell, N. (2008). Roles for technology in the information-age paradigm of education: Learning management systems. *Educational Technology*, 48(6). 32-40.

About the Author

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Discussion Questions

1. Consider your experiences as a learner or instructor in an online environment. What were some of the challenges you encountered that can be attributed to the online setting? What elements of the online course design helped to enhance your learning?

2. Desire2Learn and other learning management systems (LMS) have a wide range of features and functions which can be used for content delivery, learning activities, and evaluation. What features would you like to see in an LMS that aren't there yet? How might you work around these feature limitations?

3. Consider an activity or project that you have used with students in a face-to-face classroom. Would this activity/ project lend itself to a blended or fully online setting? Why or why not? What changes would you need to make in order for it to be effective online?