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# Signature Pedagogies in Online Classes

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# **SIGNATURE PEDAGOGIES IN ONLINE CLASSES**

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*Instructors design interactivity during online sessions in different ways. In this exploratory study, researchers examined which signature pedagogies provided successful learning during online synchronous sessions. Researchers analysed online recordings of synchronous sessions from four courses throughout one semester and after each session students were invited to complete a survey to gather their perceptions about the learning activities. The preliminary findings inform future designs for online courses that incorporate synchronous sessions to foster a community of inquiry. Teachers using technologies for blended learning or those teaching fully online may be interested in the findings from this study.*

Keywords: online learning; synchronous; signature pedagogies; higher education

## **SIGNATURE PEDAGOGIES**

Signature pedagogies, first introduced by Shulman (2005), are forms of teaching and learning characteristic of a profession. They are forms of instruction that one typically associates with particular professions (Shulman, 2005). The Office of Teaching and Learning at the Werklund School of Education, University of Calgary (2017), lists these signature pedagogies as a starting point: problem-based learning, community-based learning, place-based learning, inquiry-based learning and case-based learning. In order to illustrate an example of signature pedagogies in educational professions, the authors describe case-based learning. Cases are generally written as narratives in need of a resolution. Cases can be used to provoke thinking about compelling issues,

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providing students with opportunities to reflect on questions and negotiate understanding and be “prepared to think, to perform, and to act with integrity” (Shulman, 2005, p. 52). Students can also write their own cases and draw on personal and professional experiences, referred to as the pedagogy of case writing (Meyer & Shannon, 2010). In professional graduate programs, instructors can develop cases as provocations to help students contemplate how research can be designed in response to a relevant professional problem of practice.

### **SYNCHRONOUS SESSIONS**

Synchronous sessions, or real-time virtual meeting rooms where students meet with the instructor simultaneously, are often elements of online courses. In the Werklund School of Education, it is common that synchronous sessions are offered three times throughout each term during graduate-level online courses. Instructors design interactivity during these sessions in different ways (Brown, Schroeder & Eaton, 2016). There is literature about web-conferencing software and courses taught fully online (Bower, 2016; Clark & Mayer, 2011); however, there is a gap in understanding how instructors facilitate interactivity during online synchronous sessions (Park & Bonk, 2007). Students indicate synchronous delivery offers little interaction (McBrien, Cheng & Jones; Park & Bonk, 2007) and researchers argue that student-centered approaches can improve a sense of community in online courses (Bower, 2016; Park & Bonk, 2007; Young & Bruce, 2011). Online courses continue to evolve as emerging technologies and signature pedagogies (Chick, Haynie & Gurung, 2012; Shulman, 2005) are understood and used by instructors for developing high quality and engaging communities of inquiry. As such, there is a need to study online synchronous sessions and the impact these sessions and signature pedagogies used during these sessions can have on student learning in order to continue redesigning and improving the quality of online courses.

## THEORETICAL FRAMEWORK

This project uses the community of inquiry framework (Akyol & Garrison, 2008; Garrison, 2007, Garrison, Anderson & Archer, 2000) to examine how synchronous sessions support student learning, as teaching, learning and cognitive presence, while considering the notion of signature pedagogies. The layering of signature pedagogies with the community of inquiry framework allowed us to take an innovative approach for the project that we have not previously observed in the literature (Figure 1).

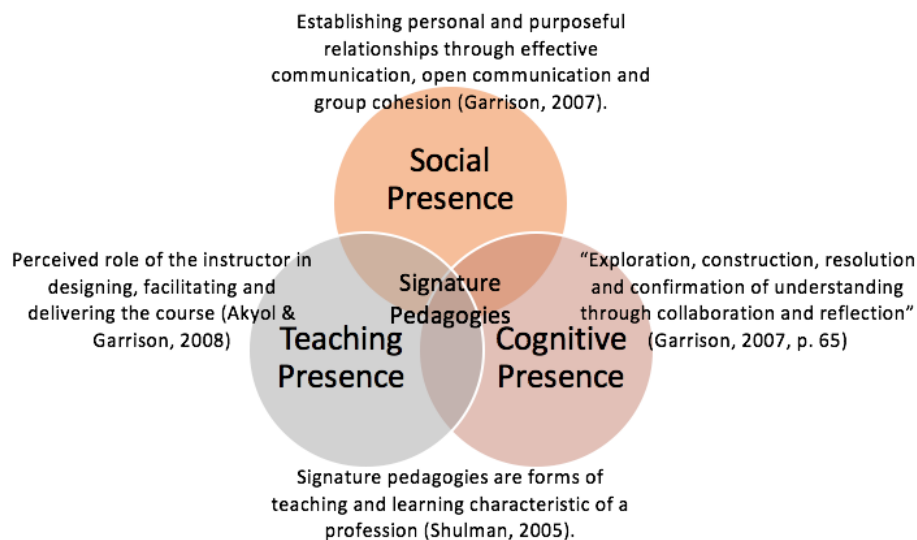


Figure 1: Layering Signature Pedagogies with the Community of Inquiry (COI) Framework

## METHODOLOGY

Using a mixed methods action-research approach, this exploratory study drew data from four graduate research classes involving three different instructors. These courses focused on supporting working professionals with research projects during their graduate programs. The overall question guiding the research was: How do online synchronous sessions support student learning in professional graduate programs engaging in research-active opportunities for scholarship of the

profession? Each instructor recorded three synchronous sessions during one academic term. In this paper, preliminary findings are based on the first synchronous session offered to students at the beginning of the term. The sequence of teaching activities in the recordings were documented and analyzed by the research team. The transcripts were color coded to differentiate the instructors' oral communications using the microphone and written communications using the chat box. The research team reviewed the transcripts and conducted an analysis of teaching activities that occurred during the sessions. Following the first synchronous session, students received an invitation to complete an online survey. In the survey, students provided feedback about the teaching strategies used during the synchronous sessions and evaluated their experience in the synchronous session. Survey responses from students (n = 15) across four graduate classes were reviewed by the research team.

## **FINDINGS**

Survey responses indicated the first synchronous session provided an introduction and roadmap for the course. One student commented, "It set the ground rules, expectations, answered questions, provided structure, and created a sense of purpose for the course." However, some students noted the first session did not serve to support learning about research design. As one student noted, "While beneficial, I would say this did not specifically address learning about research design."

Table 1 provides a sequence of teaching activities used in one synchronous session at the beginning of a term to provide an example of the flow of activities and how these activities demonstrate social, cognitive and teaching presence from the COI framework and signature pedagogies.

Teaching Activities	Description	COI & Signature Pedagogies
Introductions	The instructor used a prompt to invite each student to use the microphone and provide a self-introduction at the beginning of the class – “What do you see when you look out your favourite window?”	Social & Cognitive Presence
Whole Class Dialogue	Using a round robin technique, the instructor asked students to respond to the following questions: <ul style="list-style-type: none"> <li>• What do you need for support this term? How can I provide you with the best learning experience this term?</li> <li>• How were discussion forums used in your previous online courses?</li> <li>• Do you have other input on what worked for you? How were you held accountable to put together your work?</li> </ul>	Social & Teaching Presence
Presentation	The instructor provided an overview of the course: <ul style="list-style-type: none"> <li>• Instructor discussed tasks and expectations in the course.</li> <li>• Instructor discussed feedback and the importance in gathering feedback during the course from the course instructor but also from expertise outside of the course (i.e. their research supervisor).</li> </ul>	Teaching Presence
Case-Based Learning Discussion	The instructor provided a case in a brief scenario format describing a challenging research situation. The scenario provided a provocation and prompted dialogue about what students should do to avoid this type of situation.	Signature Pedagogy & COI
Chat Box Question	The instructor asked students to simultaneously provide the name of their research supervisor using text communication in the chat box.	Teaching Presence
Last word	Each student was provided with an opportunity to ask a question or make a comment before closing the session. The instructor ended the session by thanking the students for helping to collaboratively design and tailor their learning experiences.	Social Presence

Table 1: Sequence of Teaching Activities

One of the learning outcomes common to all of the research courses that are part of this study is to engage in a scholarly community of inquiry. Based on the preliminary analysis of the survey results, students indicated they were engaged during the initial synchronous session by the dialogue that occurred during the session and having an opportunity to receive immediate instructor and peer feedback. Common instructional strategies that promoted student dialogue and engagement during introductory synchronous sessions included providing students with provocations, seeking student input and instructor responsiveness. Instructors asked students to respond to provocations such as case-based scenarios for learning. One instructor prompted students with a quote from one of the course readings to invite students to reflect and dialogue about challenges in their professional contexts – “Caring, conscientious educators reflect on their practice and work to improve it. That

kind of reflection is at the heart of action research” (Hendricks, 2013, p. iv). One of the instructors used a visual artifact of balancing rocks as a provocation. The instructor commented on how the visual represents the upcoming work and how everyone will be “learning together” and “building foundations.”

Instructors regularly invited students to contribute and provide their input during the synchronous sessions. For example, one instructor encouraged participants to provide input by stating, “I would love to hear from others in the group...I would like to open up the microphone and get your input.” Students were regularly invited to respond to instructor questions and instructors were also responsive to student questions. Students also reported they appreciated receiving feedback about their research ideas. These active student engagement techniques used by the instructors during the introductory online sessions align with field-tested activities found effective by other researchers (Barkley, 2009; Zepke & Leach, 2010).

Communication challenges also occurred during these introductory sessions. In one of the sessions, the instructor’s sound faded for short durations seven times during the initial 1 hour and 16-minute session. One survey respondent commented, “Had the connection been better, it would have created an opportunity for the cohort to have a scholarly discussion.” Exploring the impact of technical issues during synchronous sessions on the development of community of inquiry is an area that requires further exploration. As the study was still in process at the time of publication, the findings presented here present interim results of the analysis of initial synchronous sessions. Subsequent publications will report on the completed study, including synchronous sessions that take place in the middle and at the end of the course, additional survey data and student, instructor and administrator interview data.

## CONCLUSION

In the synchronous sessions, instructors used a variety of strategies to foster social, cognitive and teaching presence and encourage students to contribute using oral and written communications. Instructional strategies promoting social presence and providing opportunities for all students to respond (i.e. opening introductions, closing final words) are commonly used by instructors. Student engagement is also supported through provocations, seeking student input and instructor responsiveness throughout the sessions. Furthermore, instructors use signature pedagogies, such as case-based learning approaches for promoting interactions in a community of inquiry.

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