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Conceptual Framework

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INTRODUCTION

Blended learning has received increasing attention with the infusion of web-based technologies into the learning and teaching process. Virtually all courses in higher education incorporate information and communication technologies to some degree. These technologies create new opportunities for students to interact with their peers, faculty, and content. The infusion of information and communications technology in higher education draws attention to the theory and practice of blended learning.

Blended learning inherently demands a fundamental rethinking of the educational experience and presents a challenge to traditional presentational approaches. If we are to deal with the theoretical and practical complexities of rethinking the educational experience from a blended learning perspective, then the first challenge is to provide a conceptual order that goes beyond rigid recipes. Such order and coherence is of particular importance for practitioners who may not have a full appreciation of the possibilities that new and emerging technologies present for engaging learners in innovative educational experiences. It seems to us that a conceptual framework may well be of the utmost practical value to assist practitioners to navigate through the educational and technological levels of complexity.

The purpose of this chapter is to describe blended learning briefly and then to establish the rationale through which we can explore the practical challenges in implementing blended learning approaches in higher education. This rationale is operationalized in the Community of Inquiry (CoI) theoretical framework (Garrison, 2011). The Community of Inquiry framework is outlined with a particular focus on teaching presence. From this framework are derived the seven principles of blended learning that shape the structure of this book.

BLENDED LEARNING DESCRIBED

While it is clear to most that the core of blended learning is the integration of face-to-face and online learning activities, it is important to recognize that simply adding an online component does not necessarily meet the threshold of blended learning as defined here. In the book that set the stage for this work, *Blended Learning in Higher Education*, we provided a succinct definition of *blended learning* as “the organic integration of thoughtfully selected and complementary face-to-face and online approaches” (Garrison & Vaughan, 2008, p. 148). By *organic* we meant grounded in practice, and by the use of the term *thoughtfully*, we wanted to indicate a

significant rethinking of how we should be approaching the learning experience.

With regard to a thoughtful approach, we specifically excluded enhancing traditional practices that do not significantly improve student engagement. That said, we do not want to restrict innovative blended learning designs by providing strict parameters as to the percentage of time spent face-to-face or online. We have chosen to provide a qualitative definition, which distinguishes blended learning as an approach that addresses the educational needs of the course or program through a thoughtful fusion of the best and most appropriate face-to-face and online activities. The key is to avoid, at all costs, simply layering on activities and responsibilities until the course is totally unmanageable and students do not have the time to reflect on meaning and engage in discourse for shared understanding.

Blended learning is the inspiration of much of the innovation, both pedagogically and technologically, in higher education. By *innovation* we mean significantly rethinking and redesigning approaches to teaching and learning that fully engage learners. The essential function of blended learning is to extend thinking and discourse over time and space. There is considerable rhetoric in higher education about the importance of engagement, but most institutions' dominant mode of delivery remains delivering content either through the lecture or self-study course modules. Blended learning is specifically directed to enhancing engagement through the innovative adoption of purposeful online learning activities.

The strength of integrating face-to-face synchronous communication and text-based online asynchronous communication is powerfully complementary for higher educational purposes. The goal of blended learning is to bring these together to academically challenge students in ways not possible through either mode individually. There is a distinct multiplier effect when integrating verbal and written modes of communication. An added benefit is that blended learning sustains academic communication over time.

Moreover, students have time to reflect and respond thoughtfully. Finally, while significant administrative advantages are gained through blended learning designs (access, retention, campus space, teaching resources), the focus here is the quality of the learning experience made possible through blended learning approaches.

In the next section we explore the ideas of engagement and academic inquiry central to the ideals of higher education. These ideas are inherent to learning communities and provide the foundation for implementing blended learning. Learning communities provide the conditions for discussion, negotiation, and agreement in face-to-face and online environments with virtually limitless possibilities to connect to others and to information. Such a community, which we describe next, frames the principles that shape this book.

COMMUNITY OF INQUIRY

Lipman (1991) has argued that education is inquiry. He suggests, “The community of inquiry is perhaps the most promising methodology for the encouragement of that fusion of critical and creative cognitive processing known as higher-order thinking” (Lipman, 1991, p. 204). Critical thinking is most often cited as the hallmark of higher education. Therefore, we view a community of inquiry as the concept that best captures the ideal of a higher educational experience. Our belief is that practitioners can create the conditions for critical thinking, rational judgments, and understanding through the engagement of a community of inquiry. Both a sense of community and a commitment to the process of inquiry must be in place.

The Community of Inquiry (CoI) theoretical framework is unique in framing our discussion of the practical implications of blended learning in higher education. It has been the focus of extensive study and validation for over a decade (Garrison, 2011). The premise of the CoI framework is that higher education is both a collaborative and an individually constructivist learning experience. As such, we have this seemingly paradoxical but essential connection

between cognitive independence and social interdependence. We argue that personal reflection and shared discourse are requisite for higher learning and, practically, are best realized in an educational community of inquiry. A community of inquiry is where “students listen to one another with respect, build on one another’s ideas, challenge one another to supply reasons for otherwise unsupported opinions, assist each other in drawing inferences from what has been said, and seek to identify one another’s assumptions” (Lipman, 2003, p. 20).

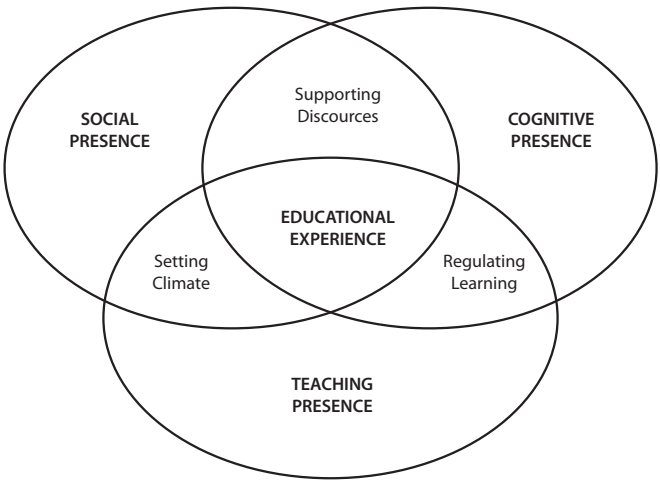


FIGURE 1.1. Community of Inquiry framework

The three key elements or dimensions of the CoI framework are social, cognitive, and teaching presence (Figure 1.1). It is at the convergence of these three mutually reinforcing elements that a collaborative constructivist educational experience is realized. Social presence creates the environment for trust, open communication, and group cohesion. *Cognitive presence* has been defined “as the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse in a critical community

of inquiry” (Garrison, Anderson, & Archer, 2001, p. 11). It has been operationalized through the developmental phases of inquiry – a triggering event, exploration, integration, and resolution. The third and cohesive element, teaching presence, is associated with the design, facilitation, and direction of a community of inquiry. This unifying force brings together the social and cognitive processes directed to personally meaningful and educationally worthwhile outcomes.

<i>ELEMENTS</i>	<i>CATEGORIES</i>	<i>INDICATORS</i> (examples only)
Social Presence	Personal/Affective Open Communication Group Cohesion	Self projection/expressing emotions Learning climate/risk-free expression Group identity/collaboration
Cognitive Presence	Triggering Event Exploration Integration Resolution	Sense of puzzlement Information exchange Connecting ideas Applying new ideas
Teaching Presence	Design & Organization Facilitating Discourse Direct Instruction	Setting curriculum & methods Shaping constructive exchange Focusing and resolving issues

FIGURE 1.2. Community of Inquiry categories and indicators

To assist in gaining a greater appreciation of the categories of each of the presences (Figure 1.2), we provide indicators and examples of meaningful activities associated with each presence. A quality, blended community of inquiry should reflect these activities. It is important to appreciate each category and its progressive or developmental nature. For example, teaching presence begins with a design phase and then progresses to facilitation and direct instruction to ensure the successful resolution of the problem or task. This cycle will repeat throughout a course of studies. The developmental and cyclical nature of each of the presences is perhaps more obvious within cognitive presence and its phases of inquiry. Social presence

also has a developmental progression. The first goal in establishing social presence is to recognize the need for identity with the purpose (academic goal) and not to focus too strongly on interpersonal relationships. Interpersonal relationships can and should develop over time, while issues of open communication and group cohesion must be the primary focus at the beginning of the inquiry process (Garrison, 2011).

TEACHING PRESENCE

Introducing a phenomenon as complex as teaching presence in a blended learning context is a daunting task. Beyond discussing teaching with technology, this task requires explicating, examining, and describing a new approach to teaching in a new era of higher education. We see that required changes in higher education are now emergent, for “neither the purpose, the methods, nor the population for whom education is intended today, bear any resemblance to those on which formal education is historically based” (Pond, 2002, para. 2). These changes include a new way of conceiving of, and offering, teaching and learning.

We focus here on the teaching presence construct as growing evidence points to the importance of teaching presence for the success of a community of inquiry (Akyol & Garrison, 2008; Arbaugh, 2008; Eom, 2006; Shea, Li, Swan, & Pickett, 2005). The conceptual framework we offer requires new ways of thinking about the role of teacher and the role of student. Blended learning provides expanded possibilities and difficult choices for the educator and participants in a community of inquiry. The responsibilities of teaching presence are distributed within the learning community but are not diminished; the importance and challenge is only magnified. Teaching presence is enhanced when participants become more metacognitively aware and are encouraged to assume increasing responsibility and control of their learning. Much attention needs to be focused on

teaching presence if we are to create and sustain the conditions for higher order learning.

This issue of shared responsibility makes the point that each participant in a community of inquiry must take some responsibility for social, cognitive, and teaching presence. This is why the third element is labeled *teaching* presence and not *teacher* presence. It is not just the teacher who is responsible for social and cognitive presence issues. All participants in a collaborative learning environment must assume various degrees of teaching responsibilities depending on the specific content, developmental level, and ability. From a cognitive presence perspective, instructor and students must be prepared to clarify expectations, negotiate requirements, engage in critical discourse, diagnose misconceptions, and assess understanding. Participants must also be aware of social presence issues and ensure that everybody feels that they belong and is comfortable contributing to the discourse but also prepared to challenge ideas respectfully.

The pioneering innovation of virtual communication and community requires both teacher and student to engage, interact, and contribute to learning in new ways. The challenge is that simply providing opportunities for interaction and collaboration does not provide assurance that students will approach their learning in deep and meaningful ways. The role of learner in blended learning environments constitutes multiple roles and responsibilities. This creates role complexity, as participants must assume varying degrees of responsibility to monitor and regulate the dynamics of the learning community. This is consistent with the very nature of a community of inquiry with shared academic goals and processes.

Moving beyond the premise of shared responsibility, what requirements are embodied in the art of teaching in a blended learning environment? First, teaching presence must be true to the learning objectives of the subject while attending to the needs and capabilities students bring to the experience. However, the ways in which the role of effective teaching is crafted in blended learning

environments are different and more complex. We create a clear picture of the role of effective teaching in blended higher education that creates the conditions for deep and meaningful learning. As this occurs, change will occur in the classroom, shifting what is done there as well. As we illuminate and reconstruct the process of teaching in higher education through the creation of blended learning communities, we must also examine the assumptions of teaching, the practices common to all teaching delivery in higher education, the new roles for teacher and student that emerge from these changes, the principles appropriate to the combination of teaching face-to-face and online, and the relevant changes to assessment strategies.

PRINCIPLES

Principles are essential to the translation of theoretical frameworks into coherent practical strategies and techniques. Principles become even more valuable when coping with the complexities of integrating the potential of new and emerging communications technology. While the principles of good practice associated with the traditional classroom have generic value, they do not adequately consider the collaborative constructivist approaches and communication technologies being adopted in higher education.

A principled approach to teaching that emerges from a sustained community of inquiry takes us beyond the traditional lecture all too common in higher education. The principles that shape this book and give structure to teaching presence encourage students to assume greater responsibility and control of their educational experience. To help put the principles discussed here into context, we begin with a brief examination of the most prominent set of teaching and learning principles in higher education. Those are the widely cited and adopted principles of good practice in undergraduate

education published by Chickering and Gamson (1987). These principles are as follows:

1. Encourage contact between students and faculty.
2. Develop reciprocity and cooperation among students.
3. Encourage active learning.
4. Give prompt feedback.
5. Emphasize time on task.
6. Communicate high expectations.
7. Respect diverse talents and ways of learning.

The Chickering and Gamson principles were generated from research on teaching and learning and have guided educational practice in higher education over the last two decades. They were, however, based on traditional practice, which focused largely on the lecture, and were generated and intended for face-to-face environments. Moreover, they were formulated through consensus in a largely atheoretical manner. These principles are too often interpreted as a means to improve the lecture format, which is not necessarily how we can better engage learners in more active and collaborative educational experiences.

While these principles have served higher education well in directing attention to good teaching and learning practice, we believe that these principles need to be updated to address the changing needs in higher education to become information literate in the age of the Internet. These principles must be consistent with the ubiquitous connectivity afforded students today. It is time to create a new set of principles that can better reflect the ideals of a higher education experience by recognizing and utilizing the capabilities of new and emerging information and communications technologies. While these principles are not incongruent with blended learning environments, there are conditions, assumptions, and properties of technologically mediated learning environments that require an update of these principles.

Collaborative constructivist approaches are more than interaction and engagement. As valuable as the principles of contact, cooperation, active learning, feedback, time on task, and respect are, the collaborative approaches and principles discussed here address new requirements of the knowledge age of the 21st century. The educational approaches needed today represent purposeful collaboration to resolve an issue, solve a problem, or create new understandings. The educational process outlined here is situated in the context of a community of learners focused on purposeful inquiry where students collaboratively assume increased responsibility and control to resolve specific problems and issues.

The seven principles that shape this book are deductively derived from the CoI theoretical framework. The principles are organized around the three sub-elements or categories of teaching presence: design, facilitation, and direction. Within each of these three functions and areas of responsibility, we address the elements of social and cognitive presence. Considering the complexity of a collaborative blended learning experience, considerable care and thought must be devoted to design, facilitation, and direction.

The following principles provide a map and guide to creating and sustaining purposeful communities of inquiry:

1. Plan for the creation of open communication and trust.
2. Plan for critical reflection and discourse.
3. Establish community and cohesion.
4. Establish inquiry dynamics (purposeful inquiry).
5. Sustain respect and responsibility.
6. Sustain inquiry that moves to resolution.
7. Ensure assessment is congruent with intended processes and outcomes.

The first two principles speak to the social and cognitive challenge of designing a collaborative blended learning experience. The next two principles address the social and cognitive concerns associated

with facilitating a community of inquiry. The last three deal with the social, cognitive, and assessment responsibilities of directing an educational experience to achieve the desired outcomes successfully. These seven principles are the first step in providing specific practical guidelines to the design, facilitation, and direction of a collaborative community of inquiry.

CONCLUSION

The challenge now is to explore systematically the strategies and techniques where we can fuse face-to-face and online learning that will create purposeful communities of inquiry in the support of deep and meaningful approaches to teaching and learning. We need to explore the strengths and weaknesses of face-to-face and online experiences as we consider each of these principles. This will be done in subsequent chapters, which will focus on the design, facilitation, direction, and assessment of blended learning experiences.