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Redesigning Online Learning for International Graduate Seminar Delivery

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Abstract

Given the crucial role played by universities in a knowledge-based society, understanding how and under what conditions online learning (OL) can improve access to graduate studies is of the highest importance to today's growing global economy. Over the past decade, phenomenal advances have been made in the application of communication and information technologies to support student learning in higher education. Yet, in proportion to overall provision of higher education, the use of technology by faculty for graduate-level, online learning (OL) has been minimal, especially among regular faculty. This paper presents an adapted form of OL, especially designed for traditional universities, with initial data from studies underway in two Canadian universities. Finally, an emerging network of researchers interested in the role of online learning within mainstream higher education is presented.

Résumé

Étant donné le rôle crucial joué par les universités au sein d'une société fondée sur le savoir, comprendre comment et à quelles conditions l'apprentissage en ligne (AL) peut améliorer l'accessibilité aux études supérieures est primordial pour l'économie globale croissante d'aujourd'hui. Au cours de la dernière décennie, des avancées phénoménales ont été réalisées dans l'application des technologies de communication et de l'information afin de soutenir l'apprentissage étudiant dans le cadre d'études supérieures. Toutefois, proportionnellement à l'ensemble de l'enseignement supérieur dispensé, l'utilisation de la technologie par les enseignants pour l'apprentissage en ligne (AL), aux études supérieures, a été minimal, particulièrement parmi les membres réguliers du corps professoral. Cette étude présente une forme adaptée d'AL, spécialement conçue pour les universités traditionnelles, avec des données initiales provenant d'études en cours dans deux universités canadiennes. Finalement, un réseau émergent de chercheurs s'intéressant au rôle de l'apprentissage en ligne dans le cadre de l'éducation supérieure régulière est présenté

Introduction

Understanding how and under what conditions online learning can improve access to postsecondary education for all Canadians is of the

highest importance because of Canada's growing knowledge-based society and the crucial role played by universities in the new economy. Over the past decade, phenomenal advances have been made in the application of communication and information technologies to support student learning in higher education. Yet, in proportion to overall provision of higher education, the use of technology by faculty for graduate-level online learning (OL) has been minimal. What solutions have been fielded by researchers to enable and empower faculty to teach online and why are they not working? Is there any indication that faculty will soon become involved *en masse* in high-quality and accessible online learning? This paper explores an alternative solution to off-campus course delivery, combining elements of blended learning and online learning into what we have termed *Blended Online Learning* (Power, 2008; Power & Vaughan, 2009). It is based on actual authorial teaching practice as well as two studies conducted at two major North American universities, presenting the perceptions of faculty, students, administrators and instructional designers with regard to an alternative approach to delivering the graduate seminar online.

Context

Universities world-wide, backed by a thriving communication and information technology industry, currently have at their disposal technological options that provide students with increased access to higher education (Bates, 2005; Bullen & Janes, 2007). In such a context, there is a heightened level of research into learner-technology interfaces dealing with issues of learning theory application as well as faculty appropriation of technology (Cook, Owston & Garrison, 2004; Lefoe & Hedberg, 2005). Research indicates that initiatives undertaken by universities, namely in North America, to launch stand-alone, asynchronously-based *Web courses*, are meeting with mixed results with regard to learning outcomes (Bowles, 2004; Teather, 2004; Ruth & Sammons, 2007). On the one hand, there is the promise of online learning (OL) going mainstream (Allen & Seaman, 2004; 2007), and on the other, there is a realization of expectations not being met (Carr-Chellman, 2005; Canadian Council on Learning, 2009; OECD, 2005). Insufficient reporting may explain some of the discrepancies in results (Abrami, Bernard, Wade, Schmid, Borokhovski, Tamim, Surkes, Lowerison, Zhang, Nicolaidou, Newman, Wozney & Peretiatkowicz, 2006; Larreamendy-Joerns & Leinhardt, 2006; Tallent-Runnels, Thomas, Lan, Cooper, Ahern, Shaw & Liu, 2006), however, important limits to asynchronous online learning have been identified. For instance, in the past, concerns over quality, first in distance education and more recently, in online learning, have often stemmed from the recurrent problem of learner isolation. This

phenomenon was principally attributable to courses delivered at a distance lacking sufficient student support (Cookson, 1989; Kember, 1995; Rekkedal, 1983; Rovai, 2002). Now, more contemporary, asynchronously based, online learning initiatives appear to have inherited the same problem (Bronack, Riedl & Tashner, 2006; Dunlap, 2005; Sikora & Carroll, 2002), this despite the development of imaginative and powerful learning tools and strategies linked to an asynchronous environment (Harasim, Hiltz, Teles & Turoff, 1995; Hiltz & Goldman 2005).

Moreover, faculty resistance to online learning—based primarily on course quality and workload issues—is such that there appears to be little likelihood of their en masse migration to an asynchronous virtual learning environment (Garrison & Shale, in press; Maguire, 2005). Indeed, despite an annual growth rate of 20% in online learning since 2003 (Allen & Seaman, 2007), OL has still not broken through into mainstream higher education (Shea, Pickett & Li, 2005). For instance, Gambescia & Paolucci (2009) identify 'academic integrity', as in *"educational program offerings that utilize the same assets and quality standards of the traditional programs in the institution"* (In Discussion) as an issue for many universities. Indeed, Sammons (2006) reports that OL is mainly an adjunct faculty phenomenon. Over the years, numerous authors have cited the following reasons for this lack of full time faculty engagement in distance education and 'online learning' (defined as asynchronously-delivered courses): little or no incentive, an already full workload, concern over the quality of (asynchronously-delivered) online learning, a lack of technological competency and/or interest in acquiring required skills, unresolved intellectual property issues, a strong face-to-face tradition of teaching and learning in the Academy and, essentially, a general disbelief in and distrust of technology which, in some instances, is seen as an intrusive and potentially threatening, corporate-inspired means to curb academic freedom (Black, 1992; Carr-Chellman, 2005; Jaffee, 1998; Magnusen, 2005; Rovai & Jordan, 2004; Shea, Pickett & Li, 2005; Twigg, 2003; Wolcott, 1997: Zhen, Garthwait & Pratt, 2008). The overall impression gleaned from numerous studies on faculty attitudes with regard to distance education and online learning is a strong desire to maintain intact a millennial tradition of on-campus teaching and learning (Goodyear, 2001; Jaffee, 1998). Finally, administration-based concerns over this lack of university outreach and its impact on accessibility to higher education coupled with growing pressure from students for more flexible learning opportunities are creating both internal and external stresses on the system (Duderstadt, Atkins & Van Houweling, 2002; Katz & Associates [*sic*], 1999; Nair, 2006).

Current research suggests that stand-alone, asynchronous learning environments are not meeting the needs of students, faculty and administrators and that other models of OL must be developed to better

meet the needs of all concerned (Power, 2008a; Thompson, 2005; Zemsky & Massy, 2004). Literature in the field of online teaching and learning also indicates that faculty needs must be met first in order for those of the students and administrators to be met as well (Shea et al., 2005; Twigg, 2003) With regard to faculty needs, previous research indicates that, for this to happen, solutions must be devised to decisively address workload, quality and technical issues (Mortera-Gutiérrez, 2006). As a result, university administrators, faculty and personnel have been required to rethink and adapt the steps, processes, techniques and solutions inherent in instructional design to develop more flexible forms of online learning (Garrison & Vaughan, 2008; Twigg, 2003).

More specifically, with regard to online learning and graduate studies, the research is far more sparse and inconclusive. Maeroff (2003) does report "distance education" as working best for "mature adult learners", indicating that graduate studies could well be fertile soil for further growth (p. xii). This insight is also supported by studies on learner autonomy and distance education (Moore & Kearsley, 2004) although many studies situate OL as a mainly asynchronous activity (Cornford & Pollock, 2003; Stick, 2004) and as being essentially "disembodied" (Dreyfus, 2001), not talking into account the potential of only recently-available, synchronous online learning environments (Palloff & Pratt, 2004).

Blended Online Learning Design (BOLD)

What solutions have been proposed by researchers in educational technology to enable and empower faculty to teach online and to what extent are they working? Is there any indication that faculty will soon become involved *en masse* in high-quality, accessible and sustainable e-learning? These are but two of the questions researchers are asking in the *Blended Online Learning Design* (BOLD) Research Network (www.bold-research.org). The purpose of this network is to design, develop, implement, monitor and validate new e-learning models aimed at facilitating the adoption of technology by an increasing number of faculty teaching in graduate studies.

Within the theoretical framework of the *Community of Inquiry* concept (Garrison, Anderson & Archer, 2000), this emerging world-wide network introduces the concept of *Blended Online Learning Design* (Power, 2008a; Power, 2008b) which may be the next evolutionary step in e-learning. Seen as an extension of blended learning (i.e., on campus instruction supported by web-based resources), *blended online learning* is defined as a combined asynchronous-mode learning environment (i.e., a web-based course) and synchronous-mode learning environment (i.e., a course offered in real-time via a "virtual classroom"), resulting in a completely

online learning environment. Implementing a combination of technologies used for *blended learning* and *online learning*, the *Community of Inquiry* conceptual framework has been applied to expand graduate studies in higher education. Blended online learning designed-courses combine an asynchronous learning management system (LMS) environment and a synchronous, desktop conferencing (SDC) learning environment, the resulting "blend" of learning environments representing a completely online, course delivery system which is posited will, when compared to existing asynchronous online course delivery environments, a) lower upfront design-related faculty workload, b) reduce learner isolation through real-time dialog and co-construction team activities and, ultimately, c) increase university outreach via borderless education. Furthermore, it is posited that this specific combination of technologies, approach and methodology will provide graduate students and faculty with the required tools to experience the graduate seminar online. This research is deemed critical to the training of highly-qualified personnel in the increasingly competitive arena of university services within a burgeoning knowledge society.

Shea et al. (2005) and Twigg (2003) indicate that faculty have specific needs that, to be met, require adapting online learning to pre-existing practices. The *blended online learning* environment allows faculty a sense of 'continuity of practice' (Power, 2008b) via live conversation with learners (Ng, 2007). In Figure 1, *blended online learning* is set amidst other forms of instruction such as classical **on-campus**, professor-led instruction, asynchronous **online** instruction, **LMS** and/or tutor-led instruction, **blended learning** uniting on-campus and online activities and, finally, ***blended online learning*** which provides learners with a combined **synch**ronous- and **asynch**ronous-based learning environment with advanced knowledge-sharing and creation tools and implementing real-time dialogue, instantaneous feedback, shared viewing and on-screen collaborative work as well as completely networked and borderless 24/7 access to human and documentary online resources (Goodyear, 2001; Hamilton & Cherniavsky, 2006; Sauvé, Villardier, Probst, Kaufman, Boyd, Sanchez & Power, 2006).

With regard to student needs and the isolation factor, research in the last decade shows that for an OL environment to be effective, it must accommodate the "growing role of dialogue" (Moore & Kearsley, 2004, p. 101). This is a departure of sorts from Moore's earlier position when he posited that structure and dialogue were equally important in encouraging learner autonomy (Moore, 1993). This heightened focus on dialogue is directly linked to results from instructional design studies indicating significant improvements in learning through the use of environments that support spontaneous dialogue and negotiation of

meaning (Jonassen, Peck & Wilson, 1999; Duffy, Jonassen & Bednar, 1996; Merrill & Wilson, 2005). Concomitantly, Anderson (2008) is suggesting lower levels of course planning and higher levels of in-class dialogue, thereby bypassing the "monolithic package" (p. 346) approach to course design. This is especially relevant in graduate studies where *lock-step design* (Udumaa & Morrison, 2007) is fundamentally incompatible with more autonomous scientific inquiry.

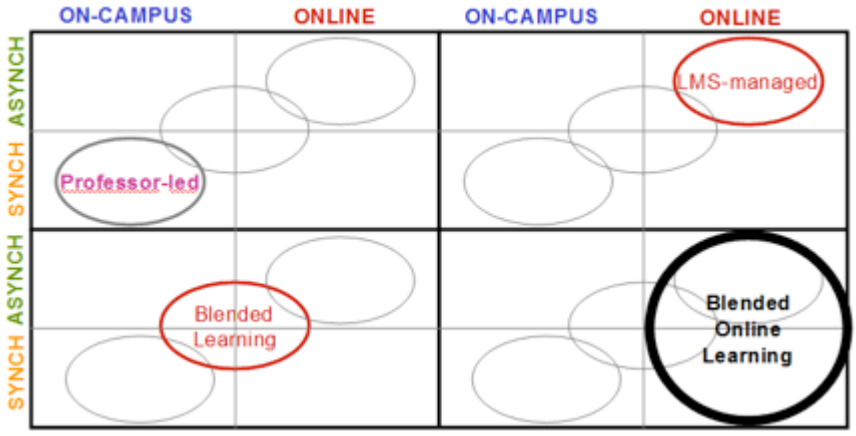

Figure 1: The position of Blended Online Learning among other forms of instruction

Fundamental to recognizing the value of real-time dialog in OL is Wenger's *community of practice* concept which situates learning as an essentially social process in which shared practice becomes the basis for subsequent theoretical development (Lave & Wenger, 1996; Wenger, 1998). A further development of this theory, especially relevant to graduate studies, is seen in the *community of inquiry* (CoI) framework (Lipman, 2003; Garrison, Anderson & Archer, 2000) whereby various 'presences' mingle to form a learning whole. In this study, researchers use CoI-inspired tools to analyze the product of primarily synchronous-based, oral exchanges via synchronous desktop conferencing. Further to these concepts, the associated concept of *blended learning* (Bonk & Graham, 2006; Garrison & Anderson, 2003; Garrison & Vaughan, 2008) contributes to researchers' understanding of how to enhance the quality of learning through a mixture of on-campus and online activities and resources.

"Finally, administration-based concerns over this lack of university outreach and its impact on accessibility to higher education coupled with

growing pressure from students for more flexible learning opportunities have created both internal and external stresses on the system (Duderstadt, Atkins & Van Houweling, 2002; Katz & Associates [*sic*], 1999; Nair, 2006). Interestingly, Dooley and Murphrey (2000) report that "administrators perceived the greatest threat stemming from competition from private and public institutions" all the while contending that "collaboration with public and private institutions was indicated as an opportunity". Moreover, the current trend of growing educational demand in general coupled with the increased number of learners "may overwhelm traditional delivery methods" (Orr, Williams & Pennington, 2009: 258)".

Research Questions

This study examined the following research questions at two Canadian universities:

- What are the advantages and disadvantages of a BOLD-based format?
- What kind of training and support is required to help faculty transition their graduate course to this delivery format?
- What are the recommendations for improving graduate courses delivered in a BOLD format?

Methodology

The methodology in this study was based on the emerging *design research* approach (Jonassen, Cernusca & Ionas, 2007; Sandoval & Bell, 2004). Design research, by focussing not only on design products generated during online course design but on the entire design process through to delivery and ongoing, follow-up assessment, necessarily encompasses a larger reality, thereby contributing greatly to theory-building (Brown, Collins, & Duguid, 1989; Jonassen et al., 2007). As a result, design research often involves intensive in-the-field, observation-based, iterative data collection (Cobb, Confey, diSessa, Lehrer & Schauble, 2003; Joseph, 2004), as was the case in this study. Furthermore, a multiple case study technique compatible with a design research strategy (Stake, 1995; Yin, 1994; Creswell, 1997) was adopted in order to document the object of the study and describe its parameters.

The 2008-2009 two-university, studies implemented such a design research methodology in six case studies, three at each university. The participant sample included a) 3 faculty members at each university (N = 6), each developing their own blended online learning-designed

course; b) students enrolled in the six courses (N = 18 at University X, N = 16 at University Y) c) 3 administrators at each institution (N = 6) d) the instructional designers directly involved and responsible for these courses (N = 4 at University X, N = 3 at University Y).

Semi-structured interviews were conducted among faculty, administrators and instructional designers with questions addressing on-campus seminar design and delivery, virtual classroom seminar delivery, transition issues and recommendations. The student population data collection was accomplished by means of an online questionnaire (i.e., *Survey Monkey*). A preliminary thematic data analysis (Boyle, 1994) of responses to the four principal research questions was then undertaken with the results reported in the following section.

These studies met with each university's Ethics Board guidelines and received approval to proceed.

Results

With regard to the first research question, the advantages and disadvantages of a BOLD delivery format are summarized in Tables 1 and 2) following.

Table 1. Advantages of a BOLD delivery format

Participant Group		
Faculty Perceptions		
University X		**University Y**
Synchronous tools: Flexibility (not 'trapped' in a classroom). Advance preparation and thinking (e.g., course design and organization). Greater sense of engagement with students. Ease of inviting guest speakers.	*Asynchronous* tools: Anywhere, anytime access to the course website. Time for postings (e.g., reflective nature. Classroom time extended indefinitely.	*Synchronous* tools* very effective: ex., break-out rooms, recordings, yes/no, emoticons, on-the-fly surveys, etc. Non geographic-dependant accessibility. Possibility of enrolling students who would not normally take my courses. This outreach is motivating. Greater flexibility, ex., finish slides just-in-time. On-the-fly invited speaker involvement. Solution to time management issues. Quality of didactic relationship with students. Instant access

		to online resources. Really enjoyable, even relaxing. *Respondents focused on the synchronous tools in their answers because they were already very familiar with the asynchronous tools.)	

Participant Group

Student Perceptions

University X		**University Y**	
Synchronous tools: Taking greater responsibility for your learning.	*Asynchronous tools:* Anywhere, anytime earning. Convenience of online communications and resources. Work at your own pace/schedule.	*Synchronous* tools: Flexibility, time management issues, improved personal life/professional life equilibrium, quality of instructional experience, maintenance of peer--to-peer and faculty -student proximity.	*Asynchronous* tools: Non geographic-dependant accessibility instant access to online resources and a generally satisfying quality learning experience

Participant Group

Administrator Perceptions

University X		**University Y**
Synchronous tools: Equity of access. Same courses offered by the same “core” faculty members.	*Asynchronous* tools: Multiple forms of communication. Revenue generation potential (e.g., expanded access/reduced costs) Convenience and flexibility of completing courses from off-campus.	*Synchronous* tools*: Expanded access to graduate students. Some students would never come on-campus, so going online increases enrolments. More flexible and sustainable teaching and learning environment. Cost efficiencies. Increased opportunities for dialogue and debate.

Participant Group	
Instructional Designer Perceptions	
University X	**University Y**
Course scheduling flexibility Potential to address different learning preferences. Opportunity to maximize synchronous and asynchronous modes of communication (e.g., energized audio conversations and reflective and integrated discussion forums). Archived synchronous sessions and asynchronous discussion forums.	BOLD-courses were indeed successful in accelerating faculty migration online. BOLD courses, ideal in situations where programs are not attracting sufficient numbers to remain viable. Pedagogy particularly well adapted to adult professional populations. Lower design levels allow for ID support among more faculty.

Table 2. Disadvantages of a BOLD delivery format

Participant Group		
Faculty Perceptions		
University X		**University Y**
Synchronous tools: Technology problems and issues (e.g., the synchronous is not a user friendly application). Time zone and scheduling issues for synchronous sessions.	*Asynchronous* tools: Focus on text-based access to the course communication. Extra time and effort required (e.g., need to schedule and maintain a "presence").	Set class times can be problematic for some students. Support from an ID is necessary to get started. Occasional technical glitches (rare). Availability of quick tech support a necessity. Absence of actual in-class social contact.

Participant Group	
Student Perceptions	
University X	**University Y**
Technology problems and issues. Lack of face-to-face communication with professor and peers (e.g., leads to superficial relationships). Procrastination and lack of motivation. Perceived feeling of being "on your own".	Lack of visual contact made exchanges somewhat stilted. Connectivity issues. Hard to remain focused for a long time. Loss of 'professorial charisma'. Hard to 'get the ball rolling' initially (re exchanges among students), before bonds were created. Set time (same disadvantage as on-campus courses).

Participant Group	
Administrator Perceptions	
University X	**University Y**
Technology problems and issues (e.g. support for evening courses). Course design and development issues (no internal department support—leads to a transfer of lecture notes). More difficult to schedule courses that have a synchronous component. Decreased opportunities for informal interactions between graduate students and faculty members.	Requires considerable bandwidth availability. Several technological 'weak links' that can prevent the course from taking place. Too little known at this point to arrive at any definitive conclusions, more testing needed. Some faculty require an inordinate amount of technical support; should that trend continue, it would prove non sustainable in the long-term. But I don't think it will.

Participant Group	
Instructional Designer Perceptions	
University X	**University Y**
Cost. Technology problems and issues. Lack of trust and intimacy with other students (e.g., takes an “extra” effort to get to know other students and the professor). Duplication of poor campus-based teaching practices.	There is still too much variability in how faculty use the virtual classroom to determine best practice. Despite counsels to the contrary, some faculty use the VC as a lecture-hall. That is 'deadly'. Some students may experience scheduling issues. Worries about use of rapid instructional design, process-based techniques rather than more familiar classical ID, product-based practices.

Interviews with faculty and instructional designers at the two universities provided a series of insights about the process of transitioning a graduate course to a BOLD delivery format. This advice is summarized in Table 3.

Table 3. Advice for transitioning a graduate course to a BOLD delivery format

Participant Group	
Faculty Perceptions	
University X	**University Y**
Need to have access to an instructional designer or team who understands what makes for a good educational experience at a distance. Knowing what kind of institutional tools you have access to and who can support your use of these tools. Time to play with your ideas and available technologies. Avoid replicating information transmission practices. Development of quality control and standards within departments and faculties. Develop and support faculty mentoring programs (e.g., Communities of Practice). Develop a reflective practitioner/inquiry approach.	Need to take the necessary time to learn how the system works (how to do this, where to find that); mustn't be rushed. Work with a competent ID, one who has had training in synchronous course delivery. Transition to correcting papers on-screen somewhat taxing, actually a lot of work, tools lacking. Need to develop an improved course course syllabus (a Learner Guide), value added. Just try it. Be innovative; overcome your prejudice; don't be scared to try new technology.
Participant Group	
Instructional Designer Perceptions	
University X	**University Y**
Training faculty as mentors. Sharing of best practice models and examples. Demonstrating the benefits of BOLD. Getting faculty to experience a BOLD delivery course from a student perspective. Helping faculty develop some comfort with the technology in order to reduce anxiety. Importance of providing tech. support during the synchronous sessions.	Focus on redesign rather than design. Avoid completely new courses that require major front-end design. Learning curve much higher for asynchronous environment than synchronous among faculty. Latter usually takes a few hours of practice whereas mastering the LMS quite time-consuming. Virtual classroom a real change in practice for faculty. Course release recommended first time.

Finally, a series of recommendations for improving graduate courses offered in a BOLD format were provided by faculty, students, administrators and instructional designers at the two study institutions. Table 4 illustrates these recommendations.

Table 4. Recommendations for improving graduate courses offered in a BOLD delivery format

Participant Group	
Faculty Perceptions	
University X	**University Y**
Make the synchronous communication tool more user friendly. Greater integration of Web 2.0 tools (e.g., collaboration potential). Incorporating other forms of rich media (e.g., simulations, games, video, audio).	Next time, record a series of video clips, especially one to welcome students and introduce the course. Insure continued faculty financial support in order to adapt materials to other student populations having other needs.
Participant Group	
Student Perceptions	
University X	**University Y**
Provide an orientation session to the technology tools that will be used for the course/program. Virtual office hours for professors. Increased assessment feedback and communication with professors (e.g., check-points and deadlines for assignments). Get professors to use the synchronous communication tool more often. Improve the quality of the technology tools and online course resources. Create more personalized and collaborative learning opportunities (e.g., project-based work). Extend the length of the semester for BOLD delivery courses.	I would encourage my fellow students to enrol in this kind of course and to participate actively in the online forum and in the virtual classroom. Take this course! It's really enriching! I would tell tell them to try the online course. Get a good headset and make sure you have a good Internet connection. Go for it! Great experience both educationally and socially.
Participant Group	
Administrator Perceptions	
University X	**University Y**
Continue to build collaborative relationships with service units (e.g., Faculty of Graduate Studies, Registrar, IT, Library and the Teaching & Learning Centre). Need for departmental instructional design support for BOLD courses. Continue to improve the quality of BOLD courses/programs. Strengthen relationships with the manufacturer of the synchronous application in order to incubate, innovate and research new ways of using this tool. Focus on improving access to graduate courses—not just on reducing operating costs and increasing revenues. Greater research focus on BOLD through the use of graduate students.	We need to adapt to planning activities in a different way (with regard to on-campus courses). Classroom allocation is managed by a different service; with the virtual classroom, we have taken on managing scheduling. So we have to better integrate that task into our service offering. Faculty need training, some a fair amount of it, which can tax our training department. So we'll have to better anticipate actual training needs and streamline it to make it more efficient. We can improve our faculty support by making sure professors have the kind of support they need when they need it. That will likely improve 'uptake' (virtual classroom adoption) among faculty.

Participant Group	
Instructional Designer Perceptions	
University X	**University Y**
Work on improving the quality of BOLD courses. Greater focus on course planning and preparation Faculty modeling "online engagement" for their students Tighter integration of the use of synchronous and asynchronous technologies (e.g., not just "add-ons").	We IDs have to make sure that we are up to date on our synchronous activity development literature. Make sure faculty do not develop a reliance (dependency) on the virtual classroom but also develop their websites. Never underestimate the amount of faculty supported required. Provide liberally, not sparingly.

Discussion

Respondents were, for the most part, enthused about the introduction of the virtual classroom. Comments among faculty such as *"Mixing the communication technologies create very interesting learning spaces"*, (XF2) are representative of discourse among this population. Another faculty member immediately saw the advantage of teaching in this way: *"This was one of the most enjoyable courses I have ever given. I don't intend to go back into the classroom"* (YF3). Another, when asked how about the difference between teaching on campus and teaching online using the BOLD model simply stated: *"…there is no difference whatsoever"* (YF4). Students were equally adamant that the BOLD model met their needs: *"I can participate in graduate courses from the comfort of my home without the hassle and stress of commuting to campus"* (XS2). When queried about the quality of instruction, another stated: *"It's the same quality as on campus, face-to-face, or even better,… same group reflection process, more opportunity for conversation, easier to have guest speakers, lots of 'space' for personal expression, ... it saves me time, no driving, fewer expenses, I don't even have to get dressed up or prepare a lunch… "* (YS3). As for the other two groups—the administrators and the instructional designers—overall, there was also marked approval of BOLD courses. One administrator pointed to *"…equity of access… the same courses are offered by the same core faculty…"* (XA2) as being significant, especially, as mentioned earlier, in light of academic integrity issues raised by Gambescia & Paolucci, 2009. Another focussed on outreach: *"We are able to reach students wherever they are, especially at the graduate level…"* (YA1). However, another administrator brought context to this discussion: *"…it's still too early to say... We're still experimenting with it (the virtual classroom)"* (YA3). Finally, with regard to the instructional designers, one assessed the potential of BOLD courses in this way: *"There is the potential to create a more active learning environment for*

all students" (XID1) whereas another emphasized an improvement in student assiduity: *"There seems to be lower attrition in a synchronous [classroom-based] course than in an asynchronous [discussion forum-based] course"* (YID2). However, one designer expressed a common fear: *"I'm worried about lower levels of design… some faculty may just use the virtual classroom for lecturing"* (XID3).

Conclusion

Clearly, further research is required to ascertain trends in user practices. However, these studies demonstrate the potential of significantly increasing knowledge about online learning practice, learner needs, faculty practices and university outreach through blended online learning which is significant at a time when online learning is rapidly expanding, often without the support of adequate scientific research. More specifically, this research has contributed to knowledge-building through the study of synchronous-mode implemented learning strategies and technologies in higher education. The study is also contributing to documenting rarely-studied, observation-based faculty and learner interactions in a virtual classroom environment. This study has significant social relevance as it contributes to understanding how increasing levels of equal access to quality higher education may be achieved, both within Canada and around the world. Moreover, it contributes to the field of instructional design and technology through innovative and evidence-based blended online learning design strategies. The results obtained from these studies are also potentially useful to instructional designers and ID researchers worldwide.

Finally, this research is original because it is investigating an emerging online learning model—blended online learning—based on the most advanced educational technologies available to educators today. Furthermore, it represents a departure from the distance education-inspired design model still prevalent in asynchronous-mode, online learning today, proposing instead, an on-campus, faculty practice-inspired design model. Finally, it brings together separate but complementary conceptual frameworks, blended learning, online learning and faculty communities of inquiry.

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