Bridging the Gap Between Facilitated and Non-Facilitated Online Courses

By Julie Radachy and Christa Ehmann Powers

Online curriculum designers must decide whether the advantages of a non-facilitated online course (such as lower cost) outweigh the disadvantages (limited student support.) There is another option: on-demand instruction from subject-matter experts where students determine when human adaptive instruction is needed.

To provide sufficient learning opportunities for students, institutions of higher learning must seek innovative instructional methods to deliver the course content. In addition to providing the instruction, leaders of online courses must maximize the use of technologies within the course and while interacting with student learners (Young 2004). While instructional models vary, an increasing number of institutions have integrated e-Learning options into their curricula, offering fully- or partially-online courses. Course facilitators lead some of these, while others are self-paced and lack a facilitator. Since its inception, the components of e-Learning have become more specialized and often serve as a gauge to evaluate the quality of an institution’s program against its counterparts.

E-Learning courses are continuously incorporating new technologies to enhance student learning, thereby increasing the success and course completion rates. Weblogs, texts, audio presentations, Webinars, and audio conferences are among the tools designers employ to help students learn the course material (Weller 2005). Regardless of the technology, the course design should enable students to maximize the benefits of the chosen learning activities.

Due to the nonlinear approach to time and space in e-Learning courses, instructional designers are able to use the technologies in a way that encourages
multiple interactions with the course material, from initial practice to final product. This increases the opportunities for student learning within various online environments. For instance, offering immediate feedback on work (whether graded or non-graded, or both) in the course increases student success rate, as some students will be able to solve the problem without outside intervention after receiving this feedback (Salter 2004).

In these cases, providing immediate or “on-demand” feedback enables the students to continue with the course material while simultaneously allowing students to learn the correct course content. Similarly, on-demand instruction provides the often much-needed feedback. This decreases the time spent on learning the course material without waiting for primary instructor feedback. This enables the students to continue with the course material after receiving this feedback (Salter 2004).

Technological advances … allow opportunities for rethinking traditional course constructs, instructor roles, and learners’ relationships with course content. … Opportunities exist for delivering courses that are facilitated by a distributed workforce of educators rather than assigning one instructor to one cohort of students.

In this article, therefore, we include three primary components. First, we provide readers with an overview of the range and the role of instructor facilitation within online courses. Second, we discuss a new model for online course delivery that involves a distributed, on-demand facilitator workforce. In the final section, regarding the need for future research and investigation, we address questions and issues surrounding the teaching and learning within this distributed, on-demand facilitator course model.

An overview of the role of facilitation in student learning

When authoring an online course, the designer must consider the level and type of facilitation between teacher and learner. As with face-to-face course formats and programs (for example, a chemistry lab, versus a mathematics seminar), online courses also require different levels of facilitation. In a face-to-face classroom environment, the common perception is that instructors are the primary and most direct source of content knowledge. In an online setting, however, many see the role of the instructor as one of a coach or facilitator. Online, students take more of an active role in determining, for example, the sequencing, pacing, and timing of their learning (Berge 2009).

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also progressed at a more consistent pace with an instructor than without, and generally, those students with an instructor completed all the course requirements and had a lesser rate of withdrawal (Reiser 1977).

A similar, more recent study by Springer (2008) focused on four online undergraduate psychology courses that took place at the University of Manitoba. While the findings of Reiser’s (1977) study were inconclusive since many of the students enrolled in the self-paced course withdrew, students at the University of Manitoba who progressed faster through the course units performed better on the final exam than those who spent longer on course units (Springer 2008). Since each group in the aforementioned studies included different students, who may or may not have had the aptitude or the individual discipline to succeed in online courses, the reasons why students withdrew or did poorly on exams may be the result of individual student cir-

Now, it is obvious that online instruction can indeed be primarily lecture-driven (see, for example, MIT courseware) just as any face-to-face course. However, much scholarship about online learning discusses the role of facilitators, where they exist, in creating learner-centered interactions to best enable their students to learn the material (Bransford 2000). Although Bransford’s (2000) work addressed children, many of the same learning needs transfer to college-age students as well, including the need to communicate, prompt rate of feedback return, and the establishment of active learning roles (Shea 2006).

The facilitator’s roles

Therefore, the facilitator in an online course can serve several roles, among them sharing content knowledge, offering a warm and approachable social presence, creating short- and long-term goals, and mastering the technical aspects of operating a learning management system (LMS) (Merrill 2003). Similarly, Berge (2009) divides the online facilitator’s role into four distinct sections (pedagogical, social, managerial, and technical), while emphasizing that each function is not independent of the others.

As a pedagogical facilitator, the course leader is responsible for asking Socratic questions to help the students understand the material and ensure that the course discussions stay focused. Since the online medium is often characterized as impersonal, the facilitator must also typically acquire a social role by creating a safe environment that is conducive to learning and taking an interest in his or her students. Simultaneously, the instructor must take a managerial role by initiating a course agenda, developing the course discussions, and creating the course materials. Last, the facilitator must take a technical role. Expanding on notions of technical proficiency outlined in, for example, Merrill’s (2003) framework, Berge (2009) charges facilitators with not only having knowledge of the platform but also inventing effective online communication strategies to offer meaningful feedback.

Juxtaposing the courses that have human facilitators involved in their delivery, self-paced courses that lack facilitator interaction have also existed for decades. The challenges of such courses have been documented.

Studies comparing designs

A study led by Reiser (1977) followed two sets of students in an introductory research course included in Arizona State University’s political science degree program, one in a self-paced course and the other in an instructor-led course. Students enrolled in a self-paced course generally procrastinated on their course quizzes more than their instructor-led counterparts because the former did not have deadlines. Students
Mentorship models

Emerging as a middle ground between traditionally facilitated and non-facilitated, self-paced courses are those courses that incorporate various distributed or decentralized human-led elements that serve to replace a single facilitator’s course role. For instance, rather than having facilitator-initiated course community building, some courses have students join different professional networks or associations; student participants then report back to the group as to their findings. Another design for decentralized facilitation has more advanced students in a self-paced course mentor students beginning the same course, which demonstrates the value in reinforcing content knowledge for both the new and experienced learners.

This mentorship model has been documented across degree programs as well. For example, Boston University, which offers an online degree in physical therapy, has connected students within the program by allowing seniors to “telementor” underclassmen by e-mail during their clinical experiences (Hayhurst 2009). Using e-mail as an instructional tool has a two-fold benefit; the senior-level students are able to share their knowledge, thus interacting with the material an additional time to reinforce those concepts, and the underclassmen are able to learn the material from an experienced student.

Experiments with decentralized, facilitated online courses

As the technology continues to evolve, institutions of higher education are experimenting with other innovative strategies for more decentralized, facilitated online courses of study that go beyond the aforementioned peer mentoring elements. Focusing on curbing the cost of higher education course delivery while enhancing student learning, the National Center for Academic Transformation (NCAT) has promoted and researched numerous redesigns of high enrollment courses at two- and four-year post secondary institutions across the U.S. Although not exclusive to online courses, NCAT strategies employ information technology (much of it online technology) to “redesign learning environments to produce better learning outcomes for students at a reduced cost to the institution” (See www.center.rpi.edu/).

Although specific to individual institutions, course redesigns typically involve gathering feedback mechanisms from students and/or other assessors, identifying areas where change needs to take place, as well as planning and finally implementing the course changes. Documented results include an average of 37% cost savings in course delivery, with reduced drop-failure-cumstance and not necessarily the self-paced, non-facilitated nature of the course. Hence, while some may argue that online courses need facilitation because of these results, student factors for withdrawal in non-facilitated courses indeed warrant further investigation (see Frydenberg 2007).

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**Texas Tech University**

In 2006, Texas Tech University redesigned their first year composition course based on the premise that in order to write well, students must write often. The university decreased the required class time while simultaneously increasing the students’ practical application of writing. This framework divides its instructors into two groups, “classroom instructors” and “document instructors.” Students receive an objective grade on their writing assignments from the “document instructors” using the computer program TOPIC (Texas Tech Online-Print Integrated Curriculum). They receive face-to-face instruction from the classroom instructors (Wasley 2006). In this system, students meet one time per week for eighty minutes and receive approximately thirty-three written assignments (Rice 2007).

While this structure saves time and eliminates biased grading procedures, opponents argue that this organizational structure begins the dissolution of the relationship between students and their teachers. Some instructors at Texas Tech have voiced concerns that it is difficult to motivate students to attend class, since classroom instructors do not have leverage over the students’ grades. However, using TOPIC at the university level has enabled the university to develop a standardized curriculum for their composition course rather than varied learning objectives and outcomes for each course section (Wasley 2006). While some would question the validity of the scores students earn, Rice (2007) explains that document readers must be within eight points of each other with their assessments of written works; otherwise, a third read is required.

**Virginia Tech**

In a similar vein as Texas Tech’s redesigned first year composition course, Virginia Tech has created a Math Emporium, a room housing 500 computers. With computer-assisted learning available 24 hours a day, students progress through the self-paced mathematics courses, either individually or in groups. They can receive assistance from faculty members and from certain students, when they are available.

Since beginning the Math Emporium in the 1990s, Virginia Tech noticed improved student-faculty relations, higher grades as a result of more student-centered learning, and improved retention. With the success of mathematics courses offered in the Math Emporium, Virginia Tech hopes to replicate this learning experience in other disciplines, including economics, biology, and business (Dittoe 2002).

One reason for the success of this model is that it reaches a variety of learners with the audio and video presentations, interactive tools, and practice exercises that allow students to work with the material until they feel confident enough to complete a graded assessment (Robinson 2006). An added benefit is the increased time management abilities in the first-year students, as students taking the online course in the Emporium are required to self-regulate their time (Williams). While increasing students’ mastery of concepts, Virginia Tech is able to reduce the cost of this education 75% since students still have access to faculty and peers when needed, but fewer people are necessary in a self-regulated learning environment (Robinson 2006).

**Decentralized, on-demand course facilitation**

Building upon these existing frameworks, we propose another instructional model, one that leverages a decentralized, on-demand facilitator network. Specifically, students progress through interactive online course modules that include audio and video presentations, practice activities, reading assignments, quizzes, tests and other graded assessments. The student then decides when to access one-to-one tutoring from a network of professional online educators who are available 24/7.

**The self-regulated learning (SRL) model**

Students self-select asynchronous and/or synchronous instruction provided by an online network of professional educators when they need supplemental assistance with the online course content. This model is not unlike one-to-one longitudinal tutorial instructional models, regulated largely by students’ individual progress. These models do not rely on small group classrooms or lecture hall formats as the main teaching mechanism (see, for example, University of Oxford 2000). Such a model allows students to receive tailored one-to-one online instructional support from professional educators throughout their progression of course modules (also see Twigg 2003, 2009).

On-demand assistance between online tutor and student occurs in a virtual whiteboard environment. The whiteboard is a real-time interactive learning environment where both tutor and student alike use text, colors, and graphical tools to discuss ideas and solve problems (Hewett 2006). Specialized mathematical and language tools enable students to more easily input data like fractions and accented characters onto the whiteboard. For courses that require written work, such as essays or reports, students submit their writing to online tutors who provide qualitative critiques and, when applicable, final quantitative scores on student essays.

While a single course instructor, much like traditional face-to-face courses, facilitates most online college
level courses, our model is grounded in a self-regulated learning (SRL) framework (see Willem 2006). This model promotes a student’s self-governance of the variables within the courses, offering a relatively high level of flexibility for the student.

**SRL process**

Within the SRL framework, students access on-demand tutorial instruction when desired as they set individual goals for assessments and assignment submissions. Through the course materials and the assistance from on-demand tutors, students proceed through each of the stages of the SRL process:

1. **the planning-analysis phase**, where students observe the learning objectives and customize their approach to learning the course material;
2. **the reflection-monitoring stage**, where students examine whether the approach to learning the material is working; and
3. **the evaluation-application phase**, when students finally evaluate whether the approach has worked (Willem 2006).

**Studies supporting SRL**

Supporting the SRL approach is Lee (2008), who reports that a class of students who regularly use SRL averaged 67.09 on three online modules that require problem-based learning whereas a class of students who did not use SRL only averaged 56.75. If students determine, with the help of various learning activities and course indicators, that they have not mastered the learning objectives in step three of the self-regulated learning sequence, they may seek on-demand assistance and adjust their approach on future self-regulated learning tasks appropriately.

Individual components of this instructional course delivery model have been studied and indicate efficacy from both a process and outcomes perspective. Numerous independent studies and reports demonstrate that on-demand facilitation via online tutoring opportunities can foster student achievement in various subject areas and help improve student retention (see, for example, BCC 2005; Langer 2008).

Calfee (2007) also reported that students earned significantly higher grades as a result of using online tutoring. Similarly, in a trial study conducted in the Fall of 2007, researchers at Open Universities Australia concluded that students using the online tutoring service experienced higher success rates and course completions (DeFazio and Deden 2008).

Process-based analytic studies of writing sample archives (synchronous and asynchronous sessions, as well as essay critiques) indicate enhancement of student learning. For example, Hewett’s (2006) process-based analytic study of a sample of high school and college students who used asynchronous online tutoring found that students used approximately 40% of the advice that tutors provided to them to improve their writing, as shown through textual iteration and presupposition analysis. Seeming to apply their own authority in subsequent revisions, students decided which advice to implement and which advice to omit.

Hewett also found that students tended to be “non-responsive” to certain types of comments that, interestingly, the online tutors themselves reported may have been problematic and difficult to understand. After evaluating the most challenging kinds of tutor statements, Hewett concluded that online writing tutors (and by extension online writing instructors) needed specific training targeting the phraseology and construction of their written commentary.

In a similar study of synchronous online interactions, Hewett (2004-2005) reported that two-thirds of student and online tutor talk was directly tied to revision in subsequent student writing. The kinds of revisions, however, differed significantly from revisions tied to asynchronous interaction. Linguistic analysis of student draft changes determined that students used such synchronous instruction for broader, more global changes to their writing. Asynchronous interactions yielded more local revisions.

Noteworthy of these studies is that these were the first published empirical studies in the rhetoric and composition field to prove that student writing can improve through on-demand, online writing tutorials.

**Standardizing quality and consistency in SRL**

Within the context of any distributed facilitator model of course delivery (whether on-demand or not), standardization of the quality of tutor-student interaction and the consistency of assigned assessment scores is imperative. This standardization can be achieved through intensive training, on-going evaluation, and professional development activities. Implementing these measures highlights both the administrative and pedagogical challenges attending to individual learner needs within an efficient and standard training program.

These complexities have been documented in various publications (e.g. Ehmann Powers in progress, manuscript under review; Ehmann Powers and Hewett 2008; Hewett and Ehmann Powers 2005, 2007). To address these issues, every tutor in the distributed network completes a subject-specific certification program that involves a combination of self-paced online modules, interactive sessions with veteran tutors, and meta-cognitive exercises. In their online practice sessions, tutors undergo an orientation to their respective

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technology platforms and then work with academic coordinators and veteran tutors who assume a variety of student roles. Simulated tutorial exercises represent diverse situations and student needs that typically are encountered throughout the semester (for example, scenarios involving ESOL learners, non-traditional students, as well as students with varying learning styles). Upon completion of the training program, tutors must demonstrate competence in specific content areas, a mastery of online communication and instruction, and an understanding of the values that drive the organization’s practice.

All tutors who review writing assessments complete an additional 10- to 15-hour training program, which addresses the fundamental pedagogical issues of tutoring writing in an online setting. Tutors participate in norming sessions to assure consistency and reliability across both individual tutor scores and the larger tutor pool. In addition to this orientation, academic directors review and back-read samples of completed assessments to confirm consistency of scoring. Should tutors demonstrate inconsistencies, additional training and norming sessions are required.

The aforementioned scholarship supports the use of online tutoring as an effective on-demand form of instruction and reinforces the need for sufficient training. However, engaging learners in all aspects of an online course that is fundamentally grounded in a self-regulated learning approach is difficult (Lee 2008). There is consensus in the literature that one of the primary reasons students withdraw from an online course is a feeling of isolation (Freeman n.d.). It is essential, therefore, to have a level of non-subject-specific support mechanisms for learners.

A team of “student services” course advisors who are in regular contact with students on, for example, success skills and time-management techniques can achieve this goal. Social networking sites, such as Ning (www.ning.com), can also address this need by allowing both prospective and current students to connect and form associations necessary to their engagement with the course. Students have the opportunity to join content-specific discussions that match the course content. Students can enter the student lounge and connect with others enrolled in different courses, or those who are still gathering information. In addition to conversing with other students, regular communication initiated by the course advisor can decrease perceptions of isolation that online learners often express, since, otherwise, many students remain silent, waiting for another to begin the conversation (Lorenzetti 2005).

Future development and research

We have presented an instructional model that involves interactive content and access to on-demand instruction. Although the technical logistics of progressing through the course modules and accessing the on-demand help are straightforward, questions surrounding self-regulated learning within a distributed on-demand facilitator course model still exist. Since the theory and practice of on-demand content assistance by professional educators in an entirely online environment is a relatively new phenomenon in education, a deeper understanding of which learners are best suited to this type of instructional model is needed.

In order for researchers and course developers to explore both pedagogical and operational approaches and recommend appropriate modifications, issues such as student and faculty experiences gained via surveys, course evaluations, focus groups, and student records across multiple courses must be closely analyzed. Future research may include examining which learners, as well as which content areas, are ideally served by this type of model. As there are a variety of learning styles, and the learning environment itself is nonlinear, there are many approaches that may actively engage a wider variety of future learners. With changes in the approaches, modifications will also need to be made to the support offered to students, making the support of future students a priority.

While the instructional model described in this article encourages human-to-human interactions with the course advisor, the social network, and one or more tutors, relationships may be developed with partner institutions that can address the need for face-to-face interaction that some students desire. For these individuals at local institutions and for the tutors themselves, more training may occur to help best equip current and future students with the skills necessary to succeed in their academic coursework.

Conclusion

Merging on-demand assistance with self-regulated learning provides a course environment in which students can progress according to their own needs while having repeated access to content-matter experts when they determine that help is needed. This instructional model can help adult learners for whom traditional, single instructor online courses may not be appropriate.

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**Use of Virtual Worlds for Learning**

In the “Modalities” section of The eLearning Guild member profile, we ask, “How often does your organization use Virtual Worlds to deliver training and learning?”

To date, 6500 members have answered that question. We tabulated these responses (see Figure 1), and found that just under 21% of respondents report using virtual worlds “often” or “sometimes.”

The trend toward virtual worlds is growing, and Guild Research will track and report on this trend in future months.

**Figure 1**

Virtual worlds usage by 6500 Guild members

Source: eLearning Guild Research