

The Blended Course Delivery Method: The Not-So-Distant Education

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Abstract

Current evidence indicates that the blended course delivery method can reduce costs, improve student academic performance, and improve instructor success in meeting course learning objectives when compared to face-to-face instruction. The present examination of best practices employed the Institute for Higher Education Policy (IHEP) (2000) quality benchmarks for Internet-based instruction as a framework for organizing 19 suggestions for designing and delivering blended courses. Results indicated that our specific faculty development experiences mirrored the more general IHEP framework.

That if a course delivery method existed that promised improved academic outcomes, increased student retention, greater convenience, improved interaction among students and instructors, and enhanced flexibility for course participants? Further, what if both student and faculty reactions to the course delivery method were consistently positive (Garnham & Kaleta, 2002; Twigg, 2003)? In addition, what if an institution's administration determined that the course delivery method could be more cost effective than its traditional delivery practices (Twigg, 2003)? The blended course delivery method has been shown to enrich the experience of students and faculty while also addressing administrative priorities.

Online education at postsecondary institutions continues to expand and blended instruction constitutes a greater portion of that growth each year. In fact, approximately 70% of institutions of higher education (IHE) provide some coursework fully online, with 80% offering blended courses (Arabasz, Boggs, & Baker, 2003). Arabasz et al. also note that 30% of surveyed IHE's expect the number of blended courses they offer to increase more than 10% during the upcoming academic year. Blended instruction is defined as the delivery of instruction using both face-to-face meetings and online media to provide course content. The time spent in traditional teaching (face-to-face) and online instruction can vary dramatically. According to the president of Penn State University, "the convergence of classroom and online education is the single greatest unrecognized trend in higher education today" (Young, 2002, p. A33).

The blended format for academic instruction evolved from its two distinct variations. Readers are certainly aware of the rapid growth of Web-based degree programs that are entirely online and eliminate all face-to-face meetings. These programs continue to increase in popularity, especially due to the convenience of participating off campus (Martyn, 2003). Faculty report both increased stress levels and excessive time investments related to leading Web-based courses (Ramage, 2002). Further, instructors have expressed concern about the lack of face-to-face interaction with students. Interestingly, Web-based classes have been shown to have somewhat lower success rates and greater withdrawal rates than traditional or blended courses (Dziuban & Moskal, 2003). A study conducted at the University of California, Davis determined that students expect face-to-face interaction with faculty (Matthews, 2003).

Traditional face-to-face instruction is clearly under scrutiny. Technological innovation and the desire of today's college-age population to participate in coursework that employs technological tools are challenging faculty (Martyn, 2003). Inquiry-based learning, some argue, can be served better through a technologically driven learner-centered approach (Garrison, Kanuka, & Hawes, n.d.). Additionally, numerous IHEs face rising costs, and learning technologies are viewed by many as an attractive means to address the ever-increasing costs of providing postsecondary instruction (Garrison, 2004; Marsh, McFadden, & Price, 2003).

Studies have demonstrated that blended instruction can positively affect numerous aspects of the academic experience. Results of a study across thirty IHEs found improved learner outcomes in 20 of the 30 projects, and no significant difference in the remaining ten (Twigg, 2003). Participating institutions reduced costs by an average of 40%. Additional results point to enhanced student interest in subject matter, better retention rates, and increased student satisfaction with the course delivery method (Young, 2002). Faculty reported greater flexibility with course development, increased contact among students and instructors, and better integration of inquiry-based instructional methods (Garnham & Kaleta, 2002; Garrison, 2004). The blended "approach uses traditional strengths of a research university to enhance the students' educational experience—with a focus on using technology as a tool with which to think and learn" (Garrison, Kanuka, & Hawes, n.d.).

In response to the rapid growth of online enrollments in higher education, researchers have begun identifying the elements that make up quality online instruction. The Sloan Consortium, an association of colleges and universities whose goal is the promotion of quality online education, has a series of publications on topics that include the examination of elements of quality online instruction. A recent Sloan publication included studies examining blended instructional environments and noted that it "offers rich possibilities for what many see as the best of both learning modes" (Mayadas, Bourne, & Moore, 2004).

Benchmarks

The Institute of Higher Education and Policy (IHEP) (2000) conducted a study resulting in twenty-four identified benchmarks across seven categories that were considered essential to promote excellence in distance learning environments. The benchmarks were identified based upon an extensive literature review and input from IHEs that had been identified as leaders in Web-based education initiatives. The study was designed to determine the extent to which the identified benchmarks are included in the policies, procedures, and practices of the colleges and universities considered leaders in Internet-based education. Additionally, the project sought to determine how important the institutions' students, faculty, and administration believe them to be. The quality benchmarks are intended as a tool for policymakers including IHE administrators, accrediting bodies, and any relevant state government entities. Additionally, faculty and students are encouraged to employ the benchmarks. One intended outcome of the IHEP research was to provide a basis for further examination of benchmarks in Webbased higher education. Subsequently, the purpose of the current work was to generate exemplars and note their alignment with benchmarks produced by IHEP research.

Rationale

As we advance through the first decade of the 21st century, it is imperative that universities adapt to the needs of the technologically astute student and the ubiquitous nature of technology in society. With the growing opportunities to meet educational requirements through technological means, mainline university programs accustomed to delivering coursework strictly through face-to-face meetings have to consider innovative methods to better serve their students.

Until recently, our institution offered very few blended courses for students. Additionally, we recognized a need to develop alternatives to the traditional course structure. The shift from face-to-face-only course models became necessary for several reasons: the rapidly changing needs of the student population, competition from other universities including online universities, and a college-wide endorsement of online course delivery.

Student considerations have also played an important role in the shift to online delivery of instruction. Our students consider multiple factors when selecting a university, program, and course schedule. Factors include location of employment and residence relative to the college campus, availability of child-care, and cost per credit hour. In addition, discussions with students have indicated satisfaction with their college experience, but also a desire for alternatives to the face-to-face format. Consequently, as faculty, we were interested in exploring innovative ways to teach. These factors led us to work as a group to develop some of our first blended courses.

Our university faces new competition from a postsecondary institution within seven miles of our campus. The other college offers numerous majors at its main campus, as well as offering coursework on thirteen additional branch campuses and outreach locations. Additionally, institutions offering degrees that may be earned without ever visiting a college campus pose new challenges to our institution. Subsequently market forces have also prompted our interest in innovative course delivery methods.

Last, our university administration has voiced a desire for faculty to explore unique methods of course delivery. Blackboard is the online course delivery platform in use at our university. With the emphasis on our campus to use Blackboard within our courses, each of us has sought effective means to employ Blackboard in our instruction. These imperatives naturally led to the notion of creating blended courses.

In response, we initiated development of our blended courses while continuing to dialogue about the successes, stumbling blocks, and unknowns encountered at each step of the course development process. An emphasis on practicality was critical, with the caveat that we must begin by being receptive to all of our initial ideas.

Reflecting on our Experiences and the Benchmarks

Three faculty members began discussing the challenges and practices they believed were critical to delivering blended instruction. This group agreed to generate guidelines suitable for others seeking to develop and deliver blended courses. The detailed guidelines were generated based on experiences directly attributable to the course development and course delivery work experiences of the three instructors. The IHEP (2000) stated that the benchmarks "may be useful to faculty" (p. 25). Though clearly a proper step, the benchmarks may be too general to be of great use to practitioners. Thus, the present examination of our own practice produced exemplars in the context of a number of the benchmark domains. We engaged in a process of categorizing our exemplar statements by particular benchmark domains (i.e., institutional support, course development, teaching/learning, course structure, student support, faculty support, evaluation, and assessment) believed essential for quality Internet-based instruction. That is, we inductively decided which of our exemplars were representative of particular IHEP domains, and assigned the exemplars to domains accordingly.

Each faculty member examined the suggested practices generated by the other faculty members. Each suggested practice was assigned a benchmark according to the judgment of each faculty member. For example, the suggestion to "conduct a computer orientation session" was assigned, by all three instructors, to the benchmark domain titled "course structure." Therefore, 100% agreement was obtained regarding the alignment of the "computer orientation" exemplar to the course structure benchmark domain. If two of the three had agreed on the assignment of a suggestion to a benchmark domain, then 66% agreement would be the result. Readers should bear in mind that the original faculty-generated suggestions were authored without any reference to the benchmark domains. The categorization activity (exemplars categorized by IHEP domains) occurred subsequent to the authoring suggestions described here.

Table 1 contains a descriptor of the suggested exemplar, the abbreviated name of the assigned benchmark domain, and the percentage agreement among the faculty. If at least two of three faculty did not agree (which happened with only one of the eighteen exemplars), then no agreement is reported. Faculty best practice suggestions, or exemplars, and associated benchmark domains are listed by agreement percentage in descending order.

Table 1: Suggested Exemplars and Associated IHEP Quality Benchmarks

Exemplar	Benchmark Domain	Agreement %
Employ group learning strategies	Teaching/Learning	100
Respond rapidly to communication	Teaching/Learning	100
Take digital images/learn names	Teaching/Learning	100
Provide sufficient scaffolding	Course structure	100
Make the most of face-to-face meetings	Course structure	100
Computer skills orientation session	Course structure	100
Use multiple technologies	Course structure	100
Experiencing online courses and peer		
mentors	Faculty support	100
Faculty need technical/pedagogical		
training	Faculty support	100
Employ common language across		
college/departments	Course development	100
Post helpful information on the		
course Web site	Student support	100
Obtain learner feedback frequently	Teaching/Learning	66
Use discussion board for course		
questions	Teaching/Learning	66
Avoid overly passive course delivery		
methods	Course development	66
Course plan should reflect "best		
practice" in distance learning	Course development	66
Identify minimal responders early	Evaluation/Assessmer	nt 66
Measure student online participation	Evaluation/Assessmer	nt 66
Use rubrics	Course structure	66
Assess students frequently	Evaluation/Assessmer	nt O

Findings

Across the 19 suggested exemplars generated by the faculty participants, 11 obtained 100% agreement regarding domain designation. Seven suggestions reached 66% agreement (two of three raters agreed about domain assignment), and one suggestion produced no agreement relative to domain assignment.

The domain most frequently addressed was teaching/learning (6 of 19 exemplars). The second and third most likely were course structure (5 of 19 suggestions), and course development (3 of 19 suggestions). The rating activity was employed to determine if the various suggestions fit the existing IHEP framework. The faculty's development experiences mirrored, in most cases, the existing framework developed in the IHEP study, which employed expert opinion. Our activity, however, was inductive. We were curious to see whether our specific suggestions fit under a larger set of principles focusing on quality, and on a pilot basis, we found that our activities align with the quality domains reported in the IHEP study. What follows are the suggestions for best practice generated by the authors that were attributed to IHEP Benchmarks for Success in Internet-based Distance Education. The suggestions have been organized by benchmark domain.

Course Development

The Course Development domain references course materials, standards for course development, and the level of student engagement. Specifically, the benchmarks state that learning outcomes, not available technology, should determine course design. In addition, course materials should align with program objectives, and student assignments should require higher-level thinking. Three recommendations clustered under the course development benchmark.

Common language across college/departments. Students participating in courses across a college or department may encounter similar topics addressed by different terminology. Examples include referring to blended courses as hybrid courses, or referring to discussion boards as asynchronous chats. Mayadas, Bourne, and Moore (2004) point out that different interpretations of meaning across departments or colleges may result. A need exists for discussion of various course elements in consistent ways to avoid unnecessary confusion for faculty and students. During course development, reducing sources of confusion or misinterpretation may become especially important in an already complex activity.

Course plans should reflect "effective practice" in distance learning. We recommend faculty determine what effective practice is at any given time and use those instructional techniques. Readers are encouraged to explore not only the IHEP (2000) study for effective practices, but also the work of the Sloan consortium, whose examination of effective practices is available online (http://www.sloan-c.org/effective/browse.asp). It is critical that during course development faculty give consideration to current literature about how to create classes effectively. Well-designed courses should promote problem-solving skills. (Rubash, 2004). Additionally, distance learning, including blended learning methods, provides opportunities to individualize instruction. Course developers should be aware that well-developed course methodologies cannot be hastily produced. Sufficient lead time—some say up to six months—is necessary to build an online course (Garnham & Kaleta, 2002).

Avoid overly passive course delivery methods. Whenever possible include links, research, and exercises that encourage students to engage course topics in ways other than simply reading from a monitor. Field activities, practice activities, and the use of links that employ audio and video address this recommendation (Rubash, 2004). The authors' experience suggests that students find lengthy reading from a monitor to be especially challenging.

Teaching/Learning

The Teaching/Learning benchmarks focus on the interaction between faculty and students. The results of the Institute's work in this area emphasize that avenues such as voicemail or e-mail can be employed as a few of a larger set of communication tools. Use of discussion boards would apply here as well. An additional element of Teaching/Learning concerns feedback to students. In particular, timely and constructive feedback surfaced as an important quality element within this domain. Instruction in evaluation of source quality is a third element. Specifically, instruction in how to conduct research online and how to assess the usefulness of an information source are valued. Five suggestions aligned with this benchmark.

Employ group learning strategies. By and large, group learning strategies are effective, and in blended courses, the formation and employment of groups clearly has value as a support system. Expansion of the number and range of students who will enroll in blended courses will affect the range of entry-level skills, and an instructor may find a beginning college student as well as more mature students in the same class. Likewise, the technological literacy across diverse participants can range widely. Mature students can model appropriate study and self-discipline skill in our experience, and younger learners may be able to contribute technological advice and support. In some cases, the reverse is true: mature learners are technologically savvy, and the younger students are primarily focused on the educational experience. We have found that even in distance courses, students may not ask questions of the instructor as readily as they seek advice from one another. Group learning, especially tasks in which discussion boards are employed as the primary group communication avenue, often prompts great support and communication about course assignments among students. Although we seek to provide timely feedback, we have found that group members can detect a foundering peer and offer to tutor and otherwise support the student experiencing difficulty.

Respond rapidly to personal communication. Today, students expect rapid response to their communication. Attempting to respond within twenty-four hours should be a reasonable goal for faculty. What may be as valued by students is the nature of the response. When students are experiencing life challenges such as family illness, we try to respond in supportive ways. Providing a large university experience with a small college "feel" has been our objective.

Take digital images/learn names. Capturing digital images of each student during the first class meeting assists in learning names. Students are told that no requirement exists for this practice, as we do this to learn their names in a shorter time. Students are informed that the pictures are only for the use of the faculty member. We make every effort to learn names, and students appear to be impressed with that effort. From the student's perspective, being treated as a person, not a "number," is highly valued. Using pictures to learn names appears to affect the qualitative dimension of communication, and aligns with the teaching/learning domain. Learning names quickly, perhaps, serves to reduce any perceived isolation present in Web-based courses

Obtain learner feedback frequently. Frequent learner feedback is a principle of good instruction. In online instruction, this notion becomes even more important. Summative feedback, in our experience, is not sufficient. Continuous feedback for formative purposes is especially necessary in blended courses, as the development and modification of such courses is likely to occur "on the fly." We suggest employing online surveys that are taken by students frequently, perhaps weekly. Besides engaging students on a regularly scheduled basis, the survey includes a request that students complete a short summary of what they've learned, thus providing the instructor the opportunity to potentially detect whether a student has understood the online lesson. Additionally, students report likes and dislikes within both the lesson and course. For example, in one of the author's courses, students noted that they especially appreciated hands-on activities during the class meetings, and subsequently, more of those activities were included than originally planned. In another instance, students indicated that the online individual activities were too numerous given the length of the course (which was offered during an alternative summer five-week session). Therefore, the instructor presented an option permitting students to eliminate some activities in exchange for a higher weighting of test scores. Some took the option, while others completed the activities as originally specified.

Use discussion board for course questions. In order to manage the potentially overwhelming volume of e-mails associated with online work, we employ discussion boards for course-related questions. By course-related question, we mean those related to course mechanics, such as where do we submit assignment X? Students can post questions and comments, and peers may respond with answers. Numerous questions about assignments are common, and if answered in a more accessible place, then others with similar questions may access an answer without querying the instructor. We have found that students are sometimes able to respond to other's questions more quickly than the instructor. Employing discussion boards not only speeds up communication, but may also build a sense of community among students who have infrequent face-to-face contact. Although using a listserv or a discussion board for these purposes is not a new idea, we find that providing multiple ways of accessing information assists in reducing the perception of isolation. Perceived isolation is, in our opinion, present in Web-based courses, be they blended or otherwise.

Evaluation / Assessment

The evaluation and assessment benchmarks were considered important by all institutions responding to the IHEP (2000) study. Although their work clearly focused on how an institution employs and responds to evaluation data (e.g., to monitor student retention), instructors, like institutions, must make decisions related to their critical course objectives. Using multiple assessment modes is desirable, coupled with a regular review of outcomes. What follows are the authors' suggestions that clustered with the evaluation and assessment benchmark.

Identify minimal responders early. If assignments are required in a blended course on a weekly or semi-weekly basis, then a pattern of non-responding or limited responding may become evident. Communication with limited responders is vital to diagnose and solve problems. We have found that some students will not seek help due to embarrassment, limited computer skills, lack of Internet access, or simply poor understanding of a course requirement. The intent of communication with such students is to resolve problems. Additionally, the documentation of instructor attempts to be proactive regarding problems is warranted if differences in opinion about instructor helpfulness and availability arise during or after a course.

Measure student online participation. The discussion board is an important communication tool in all distance education environments. The nature of discussion boards permits group work (remotely) and group products. Although a variety of ways to determine online participation may exist, certainly one of the simplest is to examine the use of course discussion boards. Other issues arise when making "quality of contribution" judgments. One of the authors has attempted to evaluate online participation by examining the number of entries per student and contributions to a task assigned to that individual's work group. By examining participation by task within group, a more manageable unit of analysis is possible. Two dimensions might be appropriate as a potential scoring system: depth of contribution and frequency of contribution. Although instructors must make decisions regarding rubrics that evaluate depth of contribution while giving consideration to its balance with frequency of contribution (it is possible to make few contributions in frequency and great contributions in depth), such measures serve as a starting point for indicating observable evidence of online participation.

Assess students frequently. Frequent assessments assist students in progressing through the course in a timely manner. The nature of online courses requires more self-direction and discipline to pace oneself appropriately. More frequent assessments assist in pacing and raise the probability that students will complete course tasks in a timely manner.

Course Structure

Course structure makes reference to the need for students to have a clear understanding of course expectations, including assignment due dates and learning outcomes. In addition, students should have the opportunity to determine, before the course begins, if they possess the self-motivation to complete an online course and whether their technology resources are sufficient given the course design. Last, students should be provided access to library resources through the World Wide Web. Five recommendations clustered with the course structure category.

Conduct a computer skills orientation session. This may be accomplished in one of two ways. First, students could be required to contact the instructor in advance of the course and be asked to provide, electronically, a written statement explaining their interest in the course. The intent of the statement is to demonstrate the potential for success in the course, which typically requires a student to be more proactive and responsible for learning than in a face-to-face course. Additionally, this would also be a means of demonstrating whether the student has access to the technology necessary to participate in the course. A second method of providing an orientation is to use the first face-to-face course meeting for computer skills training. This obviously requires the first meeting to happen at the inception of the term. Our experience has demonstrated that students who do not possess the necessary technology, the computer skills, or the motivation to begin course participation at the outset of the term were far more likely not to finish the course.

Provide sufficient scaffolding. Because students do not have consistent face-to-face contact with the instructor, clear instructions and expectations are critical. Detailed explanations along with expert products and specific suggestions regarding how to proceed with an assignment are helpful. In addition, "spot checks" for long-term assignments should be considered. Timely feedback and opportunities for "live discussion" should also be given consideration. For many students, working independently is a relatively new experience, and they may have many questions that can be addressed in detailed course task guidelines and opportunities for regular feedback.

Use rubrics. Although the use of rubrics for evaluation of assignments is more common in teacher education today, especially given the need for unitwide assessment systems mandated by accreditation, use of rubrics in blended instruction are especially valuable. Because there are fewer face-to-face meetings, students who require more support will be at a perceived disadvantage, especially if they have limited experience with distance education. Complete descriptions of task requirements and the criteria for above target, below target, and target performance levels are important. Again, for many students, working independently may be a new experience, and a rubric for grading will answer many questions. The authors have had the experience of students requesting more detail about course assignments because they must complete the tasks independently. Often, they are still in the process of learning to use instructional technology, such as Blackboard, which they often perceive as an additional learning task. Providing as much information about the content tasks as possible is valued, given the perceived increase in what must be learned in the course.

Make the most of face-to-face meetings. Course instructors should utilize class meetings to the fullest extent possible by eliminating the use of class time for purposes other than hands-on instruction. One of the authors has developed a Web site as a location for posting all materials necessary for the class meeting. It is then projected on a screen during class

time and used as an outline for topics and activities to be discussed and completed. All required readings are posted electronically so that students may easily access them prior to class meetings. During class meetings, very little time is used for direct lecture, and the focus is on hands-on activities. Students are encouraged to revisit materials on their own time, which eliminates many random classtime questions and e-mails. Included on the Web site are all assignments and corresponding rubrics. These documents are also available on the course Blackboard site. Additionally, because Blackboard access is terminated upon graduation, the Web site provides student access to course materials following graduation.

Use multiple technologies. During class meetings, the authors recommend utilizing as many effective electronic resources as possible. Dawson and Harris (1999) recommend that any technology employed should allow the user to do something that he or she could not do—or at least could not do as well—without technology. They believe this question should be considered when contemplating the use of any electronic technology. In particular, the authors believe that three electronic sources—namely digital libraries, class Web sites, and Internet instructional delivery systems—allow for more effective instruction with the blended model. These resources give the students better access to materials and make research more efficient and effective.

Student Support

The domain titled "Student Support" refers to the array of student services generally found on college and university campuses. These include but are not limited to admissions, financial aid, technological training, and assistance for students. The benchmark authors note that "it is important to understand that traditional on-campus students are among those participating in Internet-based distance education, taking one or two online courses because it is convenient or to avoid conflicts with another course" (p. 19). Thus, available student support services should provide for a wider and more diverse population than might otherwise be expected. Further, students who are taking distance-based courses and do not routinely come to campus may have a greater need for support than a traditional student taking face-to-face courses. One suggestion generated by the authors is aligned with the Student Support domain.

Post helpful information on the course Web site. Students often encounter technical difficulties at inopportune times; having rapid and easy access regarding how to contact technical support is essential. In addition, it is helpful to have detailed instructions on the course Web site as to how to locate various resources, methods for conducting quality research, or something as seemingly routine as accessing the campus online library. Students "in the heat of the moment" may forget how to access information they need for an assignment due the next morning.

Faculty Support

Because not every faculty member commands the ability, skills, and temperament to teach an Internet-based distance-learning course, the faculty support benchmarks address the resources necessary for assisting faculty in teaching online. This includes the systematic process institutions have developed to transition faculty from teaching in the traditional face-to-face format to teaching online and the training and assistance that will be available to faculty throughout the entire process. Peer mentoring and written resources regarding how to deal with issues that arise from student use of electronically accessed data are also included here. The benchmark developers found that "a major reason for the less than optimum presence of assistance was lack of resources, not lack of will" (Înstitute for Higher Education Policy, 2000, p. 20). They found that as colleges and universities try to keep up with the student demand, personnel and financial resources were lacking. Some faculty found the prospect of teaching online to be overwhelming; therefore, it was essential that faculty be instructed in the pedagogy of online teaching and the

dynamics of the online environment. Two suggestions identified by the authors aligned with the faculty support domain.

Faculty need technical/pedagogical training. Generally, faculty are not provided with any pedagogical or technical training prior to teaching a blended or fully online course. Faculty frequently must seek appropriate training for pedagogical approaches and technical expertise on their own, which may only be accessible at disparate locations and at faculty cost. Thus, both technical and pedagogical training, offered through the university, should be made available.

Faculty should experience online courses and peer mentors. Faculty who are going to teach online should have an opportunity to experience online instruction firsthand. If they are given a chance to be a "fly on the wall" and talk with the instructor of the course, they may gain invaluable insight into this process prior to engaging in it themselves. Another option is to provide faculty a peer mentor as they experience the process of developing of an online course. In our situation, it was found that the dialogue amongst the authors, who were all in the teaching and designing phases, was found to be of particular benefit.

Conclusion

Benchmarks and identified exemplars serve a number of purposes. As we have reported, they may serve as a guide for faculty preparing or teaching Web-enhanced courses. Second, they may be useful to university personnel providing staff development to campus faculty or to instructors providing graduate level training to future online educators. Additionally, the potential exists for guidelines of this nature to affect university policy regarding use of technology in education. Given that online instruction is quickly becoming a necessary method of course delivery, institutions and faculty alike are obliged to craft quality instructional design and delivery systems. Finally, as suggestions regarding the effective use of technology reach obsolescence rapidly, consistent updates of quality benchmarks are warranted, and empirically derived indicators of all the IHEP quality benchmarks would provide even greater direction.

Despite dramatic growth of distance-based higher education, the literature contains few careful examinations of strategies for ensuring quality in Web-based learning. The present faculty reflection about best practice generated exemplars of a number of the IHEP benchmarks for success in Internet-based distance education. Although the categorization of exemplars by benchmarks was a reflective activity with three instructors, the outcome may offer an additional avenue for supporting the results of the IHEP quality benchmark study. If those whose experiences in blended course development and delivery find that the lessons learned align with pre-existing quality indicators, then a more cohesive conversation may develop among those who develop and teach blended courses. Quality is certainly a concern among students and faculty alike. A literature base that systematically shares the development experiences of many can serve beginning level course developers, as well as those who currently teach Internet-based classes. If contributors to the emerging applied literature about course development can work within a quality conceptual framework, then distance learning course developers may more readily take advantage of others' lessons in quality.

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Editor's Remarks continued from p. 122

examination of the preservice teachers beliefs and about teaching and learning. This study reminds us that technology alone does not necessitate improved learning but requires thoughtful engagement among the human participants in technology based learning activities.

Adam Friedman and Sara Kajder also remind us that a techno-centric approach to preservice teacher education does not adequately prepare them to use technology in their future classrooms. The article "Perceptions of Beginning Teacher Education Students Regarding Educational Technology" discusses the importance of emphasizing pedagogical content knowledge in conjunction with technology skill development. The results of their study indicate that such an approach aided the development of preservice teachers' identities as technology-using teachers, and provided them with a critical lens to question and challenge the use of technology in classroom activities. Rubash, A. R. (2004). Designing distance delivery courses. *T.H.E. Journal Online*. Retrieved January 17, 2005, from http://www.thejournal.com/magazine/vault/A5134/cfm.

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Finally, with a focus on blended course delivery that combines online media and face to face interaction, Lyman Dukes III, Scott Waring, and Mark Koorland develop a framework for designing and delivering blended courses that reflect excellence in distance education as defined by the Institute of Higher Education and Policy (2000). Guidelines presented in the article "The Blended Course Delivery Method: The Not So Distant Education" highlight the importance of effective communication and collaboration between students and between instructor and students. The authors hope that with the development of a quality conceptual framework, faculty members will be able to take advantage of the lessons learned by others in a blended course delivery endeavor. As indicated at the beginning of this column, the benefits and costs of technology enhanced learning are not always apparent. The articles presented in this issue of *JCTE* continue to shed light on the intricacies involved in educating teachers with and about technology.

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158 Journal of Computing in Teacher Education Volume 22 / Number 4 Summer 2006

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