Contents

DISTANCE LEARNING

PURPOSE
Distance Learning, an official publication of the United States Distance Learning Association (USDLA), is sponsored by the USDLA, by the Fischler School of Education and Human Services at Nova Southeastern University, and by Information Age Publishing. Distance Learning is published six times a year for leaders, practitioners, and decision makers in the fields of distance learning, e-learning, telecommunications, and related areas. It is a professional magazine with information for those who provide instruction to all types of learners, of all ages, using telecommunications technologies of all types. Articles are written by practitioners for practitioners with the intent of providing usable information and ideas for readers. Articles are accepted from authors with interesting and important information about the effective practice of distance teaching and learning.

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Contact:

Kathleen Clemens
USDLA Director of Marketing
kclemens@usdla.org

USDLA
8 Winter Street, Suite 508
Boston, MA 02108
800-275-5162
(617) 399-1771 Fax

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Instructor Competencies:
Standards for Face-to-Face, Online, and Blended Settings
(Revised 3rd Edition)

(Published in cooperation with the Association for Educational Communications and Technology and the International Board of Standards for Training, Performance and Instruction)

By **James D. Klein,** *Arizona State University,*
J. Michael Spector, *Florida State University,*
Barbara Grabowski, *Pennsylvania State University,* and **Ileana de la Teja,** *LICEF Research Center, Tele-universite*

This edition is not just a rehash of old, albeit classic and still important, stuff. Instead, it provides a fresh perspective on a topic of perennial interest for those working in the field that has been variously called training and development, human resource development, performance technology, and workplace learning and performance. The fresh perspective takes into consideration two additional instructor settings to the traditional face-to-face environments that most instructors and trainers know -- that is, online and blended settings. These settings are, of course, becoming more critical as instruction moves beyond classroom settings to include virtual and combinations of classroom and other media delivery methods.

The ibstpi instructor competencies match up well to *Mapping the Future* (Bernthal, Colteryahn, Davis, Naughton, Rothwell, & Wellins 2004), the current ASTD competency study of the field now known as Workplace Learning and Performance (WLP) and previously known as Training and Development (T&D). WLP is more than a new name for an old subject and represents a fundamental paradigm shift in what it means to be a professional in the field formerly known as training. WLP is all about getting improved performance -- and therefore improved results -- in organizational settings through planned and unplanned learning interventions. Instruction is thus a means to an end and not an end in itself. The ibstpi instructor competencies dovetail well with that philosophy.

CONTENTS: Dedication. The ibstpi Board. Acknowledgements. Author Biographical Sketches. Foreword. Preface. **Chapter 1:** An Introduction to Instructor Competencies Overview. The Evolution of Instructor Competence. Traditional Conceptualizations of Instruction. New Learning Paradigms. New Educational Technologies. New Roles and Settings for Instructors. Face-to Face Settings. Online Settings. Blended Settings. Conclusion. **Chapter 2:** The ibstpi Competency Development Model. Overview. What is a Competency?. The Competency Development Model. Applying the Model to Instructor Competencies. Conclusion. **Chapter 3:** The ibstpi Instructor Competencies. **Chapter 4:** Instructor Competencies: Discussion and Rationale. Overview. Professional Foundations. Planning and Preparation, Instructional Methods and Strategies, Assessment and Evaluation, Management. Conclusion. **Chapter 5:** The Uses of the ibstpi Instructor Competencies. Overview. Individual Uses. Organizational Uses. Instructor Competencies and Certification. Conclusion. **Chapter 6:** Competency Validation Study. Overview. Foundation of the ibstpi Instructor Competencies. Worldwide Validation Study. Conclusion. Epilogue. References. **Appendices. A.** The 1993 ibstpi Instructor Competencies and Performance Statements. **B.** The ibstpi Code of Ethics for Instructors. **C.** Additional Resources for Instructors. **D.** Glossary of Terms. Index.

Selected Strategies for Interaction in Web-based Courses

Annette C. Sherry and Shirley F. Yamashita

In the ideal college classroom, students would seek multiple ways to become engaged with ideas and processes. They would constantly read, question, reflect, postulate, experiment, write, and discuss. Collaboration with classmates, independent study, and interaction with the instructor would be seamless and, of course, all would have beatific smiles.

It is the rare institution of higher learning that does not assert that excellent teaching is a high priority (Lazerson, Wagener, & Shumanis, 1999). Researchers, who focus on quality in teaching at this level, provide ample guidance (McKeachie, 2003). Accrediting bodies set forth benchmarks that may or may not include suggestions about ways to meet these standards (Institute for Higher Education Policy, 2000; Western Association of Schools and Colleges, 1997). Instructional designers (Smith & Ragan, 1999) provide systematic methods for matching identified learning outcomes with specific instructional strategies.

Realistically, though, within higher education in both traditional courses and "Web-HiEd" ones (Web-based college courses), faculty members know how challenging it is to achieve the idealized scenario. With the multiple demands on their time to balance teaching and research—and incorporating service activities in a meaningful manner—committed faculty members have little time, and frequently, too little reward, for designing or redesigning courses. Reading and applying suggested strategies from theoretical texts, interpreting standards for specific classes, and determining which strategies are potentially relevant for identified students take a good deal of time and effort.

When the course under consideration is a Web-based one, especially if it is an entirely new offering, the task can seem insurmountable. Where then can experienced and fledgling distance educators begin?

FRAMEWORK FOR INTERACTION

Despite questions raised by some researchers (Lowell & Persichitte, 2003), Moore's framework for interaction in distance learning (Moore,

Annette C. Sherry, Associate Professor, Wist 231, Department of Educational Technology, College of Education, University of Hawai`i at Manoa, 1776 University Avenue, Honolulu, HI 96822. E-mail: asherry@hawaii.edu

Shirley F. Yamashita, Associate Specialist, Wist 227, Department of Educational Technology, College of Education, University of Hawai`i at Manoa, 1776 University Avenue, Honolulu, HI 96822. E-mail: sfyamash@hawaii.edu

1989) and Wagner's for interaction with technology itself (Wagner, 1994) can provide a way to conceptualize and strategize instructional events for online learners. A growing emphasis on effective pedagogy in online courses encourages dissemination of proven instructional strategies (Collis & Strijker, 2003; McDonald, 2002; Sherry, 2003; Yamashita, 2003).

Two college faculty members in a College of Education at a Research I university located in the western part of the United States offer a view of selected strategies they developed, guided by a four-part framework for interaction (Moore, 1989; Wagner, 1994). The two authors design, develop, deliver, and manage Web-based courses for their students in the undergraduate-level course taught by one and in the graduate-level course taught by the other. Both of these educators have extensive experience teaching at the K-university levels, have received the teaching excellence award from their university, and have more than 5 years of experience teaching online courses.

As both are committed to active learning, they begin the process of preparing their courses for online learners by considering how their students can be guided to successfully interact in regard to: learner to instructor (and, concomitantly, instructor to learner), learner to learner, learner to content, and learner to technology.

Although Moore (1989) suggests the back-and-forth nature between the learner and the instructor in the second interaction, "learner to instructor," as well as from the instructor to learner, one of the authors noted the importance of explicitly conceptualizing this construct as two distinct parts to ensure that both receive equal emphasis as a Web-based course is developed.

With this framework for interaction, "Web-HiEd" instructors can begin by asking themselves, "How can I involve my students with content; with me and me with them; with each other; and with the technology?"

APPLICATION OF FRAMEWORK

Ten examples of responses to such questions are provided in the following strategies the authors developed for their online courses. These examples are in no way a comprehensive view of the course designs, but serve to exemplify how each type of interaction is explicitly addressed in Web-based distance learning.

Both courses are taught within the Department of Educational Technology in the College of Education at their university. The undergraduate course, Links to Lifelong Learning, is a 3-credit course in a cluster of three 3-credit introductory educational technology courses. All undergraduate education majors are required to choose one course from this cluster. The graduate course, Teaching/Training Technologies, is also a 3-credit course. It is required for all entering master's degree students in the department and is frequently elected by other graduate-level students in the College. In both courses, the typical student will generally report having little to no experience as an online learner. In the undergraduate course, little to some expertise in using technology is the norm. Reports of some expertise with technology tend to be somewhat more frequent in the graduate level course.

STRATEGIES FOR INTERACTION

Two examples of similar strategies that both instructors employ for each of the four main interactions are described. These 10 examples depict the relationship between the strategies and involvement by the learner.

LEARNER-TO-INSTRUCTOR INTERACTION

In an online environment, students need to have no hesitation in initiating communication with their instructors.

Strategy 1. To convey the importance of active learning from the start, students are asked to reflect on their expectations as online learners.

As they enroll in the graduate course, students receive a 16-item self-inventory about their willingness to interact fully as online learners. If only 12-15 items are answered positively, a warning message alerts them to the fact that they may need to exert extra effort to be successful. Less than that, the message turns into an alarm that suggests they acquire some specific knowledge and skills prior to enrolling. Undergraduates also take a 21-item self-inventory that contains selected questions that also address their motivation to be active online learners. Depending on the total score, different comments and recommendations appear.

Strategy 2. As each course progresses, planned outreach is continued. Engagement with the instructors is required throughout both courses.

Graduate level students provide written reflections about their ability to address criteria in their culminating work on electronic portfolios. Students in the undergraduate course are asked to write two reflective papers that answer key questions about their online learning experience, detailing areas of strength and areas for further development; one paper is submitted early in the course and the sec-

ond paper is submitted toward the end of the course.

INSTRUCTOR-TO-LEARNER INTERACTION

In regard to the obverse interaction, instructor-to-learner interaction, responses are required from the students about their involvement. Both instructors overtly address the hesitancy online learners frequently experience when beginning an online course.

Strategy 3. The instructors display and send warm, welcoming messages.

The graduates are welcomed with a letter sent by surface mail that contains detailed information about the course. Surface mail is used before the start of the course because, regardless of the students' ability to meet for a face-to-face orientation, one objective is for these students to function wholly as online learners so they might develop their own beliefs about this type of learning environment. The undergraduates, on the other hand, do have an option for attending a face-to-face orientation. If they are unable to attend the face-to-face orientation, a Web-based orientation is provided. The undergraduates also see an online greeting designed visually and verbally to be inviting, as well as filled with practical information about the course and the Web site. A relevant and appealing high-quality animated gif is included, adding to the friendly atmosphere.

Strategy 4. Learners soon realize, too, that their instructors are ready to provide quick responses for help and feedback about progress. This information is given by e-mail messages and in online discussion forums. When there is an unavoidable delay, a reason is provided and options suggested. Students begin to see that if a problem occurs in the course, then there

Communication within *WebCT*

Synchronous Communication Tools	Asynchronous Communication Tools
Chat There are 6 "chat" rooms on our Web site. By selecting one of the rooms you and one or more people can simultaneously type messages to each other. ***Office***: Available at posted times to indicate that the instructor will be ready to chat ***Rooms 2–4***: Available at all times only to ETEC 602 students and the instructor with any ETEC 602 student(s) who stop by and at other times for anyone in ETEC 602 who uses the room. Note. "Conversations" in all of the above "rooms" are automatically recorded in text-based versions. There are also two other chat rooms where conversations are <u>not</u> recorded: *General Chat for ETEC 602* and *General Chat for All Courses*. The former is specific to students enrolled in the course; the latter is specific to students enrolled in any WebCT course at UH.	**Private E-Mail** The E-mail in *WebCT* functions just like any other type of E-mail with the exception being that you must go to the ETEC 602 Web site to "check" your mailbox. This E-mail is the one that all students should use during the course. It is the first one that I check and, thus, the one that will provide you with the option for receiving the quickest response. If a problem ever arises in reaching me by this means, do use my external E-mail: asherry@hawaii.edu. **Forum** There is a Forum site that supports threaded discussions; that is, a way for all of us to post written messages that everyone in the course may read. Students are encouraged to reply to messages that appear in the various Forums (or Fora). There will be some required use of the Forums as well as an *Ask Ed Tech Forum*, which is the best place to post a question about using technology. All are urged to offer answers to such questions.

Figure 1. Portion of the illustrated welcoming letter sent to entering graduate-level online students.

are ways that the instructor will provide support.

The graduate level faculty member uses the student-tracking feature to identify students who are not accessing the site frequently. She follows up with informal e-mail messages to ensure there are no major problems in terms of access. The undergraduate level faculty member encourages students to use the student-tracking feature to self-evaluate their engagement with the course. The undergraduate level faculty member also sends encouraging, supportive e-mail to individual students on an ongoing basis. Both instructors include questions for their students, which require responses to draw their students into active participation. Interactions between instructors and

learners focus on attitudes, knowledge and skills. Because students tend to hold more positive views of their distance learning experiences when they believe that they can interact—regardless of whether or not they actually do so (Fulford & Zhang, 1993)—support for interaction is embedded throughout both courses to minimize the psychological distance learners can feel in cyberspace.

LEARNER-TO-LEARNER INTERACTION

Students in brick and mortar classrooms need few reminders that they are part of a learning community. On the Web, this connection is more tenuous.

Strategy 5. Early in the course, undergraduates and graduate-level

Requirements for
Assigned and UNassigned Postings

ASSIGNED DISCUSSION BOARD POSTINGS
(Topics Assigned by Instructor)

Week of:	Discussion Board Topic:
January 15 - January 22	01. Introducing Myself to the ETEC 448 Learning Community
January 23 - January 29	No Assigned Posting Due
January 30 - February 5	02. What is the Difference Between the Internet and the World Wide Web?
February 6 - February 12	03. My Favorite Search Engine and Search Engine Tips
February 13 - February 19	04. My Reflections on the Importance of Evaluating Web Sites
February 20 - February 26	05. My Answers for the Copyright Scenarios from Mrs. Ka'aloa
February 27 - March 5	06. Sharing My Web Site Plan
March 6 - March 12	07. My Thoughts on HTML
March 13 - March 19	08. What Software I've Chosen to Use to Construct My Web Site
March 20 - March 26	No Assigned Posting Due: Wednesday, March 26, is KUHIO DAY HOLIDAY
March 27 - April 2	09. Visit the First Draft of My Web Site and Give Me Feedback
April 3 - April 9	No Assigned Posting Due
April 10 - April 16	No Assigned Posting Due

Figure 2. Portion of one way undergraduate-level students are informed about participation in online discussions.

students are asked to contact other members of the class and get to know each other.

The graduate-level students participate in required synchronous chats with each other and work in virtual teams to produce a visual presentation about the team. In a similar manner, undergraduates provide their digitized images, which are displayed (with their permission) on the password-protected class Web site and are encouraged to get acquainted with each other by e-mail and chat.

Strategy 6. The discussion forum is used as a way for students in both groups to display their drafts for assignments.

Both instructors require peer review, giving the reviewer an opportunity to focus on others' interpretations and the developer a chance to receive multiple viewpoints.

LEARNER-TO-CONTENT INTERACTION

Acquiring requisite knowledge, skills, and attitudes—that is, attaining course goals—is at the heart of all learning. Given the ready access to materials and instructors that online courses can offer distant learners, these students appear to have somewhat of an advantage over their classroom-based counterparts. Online courses can readily be designed to engage learners with critical content by reaching them as a whole group and as individuals.

Strategy 7. Both graduate-level students and undergraduates are presented with consistent, inviting interfaces with content revealed on regular schedule.

For graduate-level students, content is chunked into five modules that are revealed approximately every three weeks. For the undergraduates, content is revealed weekly, a strategy that seems to work particularly well for undergraduate learning environments, as it parallels the face-to-face classroom and requires weekly contact with the learning environment.

Strategy 8. Individualized practice and feedback are expected for both groups of students.

To assess their grasp of key concepts, graduate-level students take online quizzes in multiple choice and matching formats. Upon completion, they see their scores and comments about the choices they made. Quizzes may be repeated for additional practice. Grading is based solely on completion, not on results, because the emphasis is on practice and feedback prior to beginning related assignments, which will be formally evaluated and graded. Weekly updates posted by the instructor call attention to

responses made by the students in general.

Similarly, the undergraduates' course is designed to require practice and feedback. The students participate in assigned and unassigned online discussions with each other about critical issues. The open-ended format of their required, unassigned discussions provide them with the opportunity to seek more information about subject matter if they choose to do so, while being formally assessed for participation, not content. The unassigned discussions also allow for individuality of contributions, as the student can also choose to share ideas relevant to the course, provide feedback for colleagues, and provide support and encouragement, among other initiatives. The results of their required, assigned discussions are created to parallel the course topics and are formally evaluated for content.

LEARNER-TO-TECHNOLOGY INTERACTION

Despite the technological sophistication of many of today's college students, especially 18-25 year olds who are apt to have had computers integrated throughout their school years, many of the online learners report uncertainty about being successful in "Web-HiEd." Even students with experience in one or more online courses tend to report being concerned about adjusting to their Web-based "classroom." This response is not unexpected, given that unless a university-wide template for cyber-classes is mandated, each online course can have features unique to its site as a result of either, or both, the instructor's design or the course software.

Strategy 9. Learners in both courses are presented with information about the technology itself from the start of the course.

The information that both groups receive at the beginning of the semester includes not only information about content, but also emphasizes the technologies that are employed. For example, the synchronous chat function that is one of the course tools is explained and demonstrated in both courses through required chats sessions. During those sessions, the instructors demonstrate ways to send URLs and communicate privately with others during the public chat time.

Job aids consisting of step-by-step directions and accompanying screen shots are included on both sites to guide students in the use of features, such as using the "drop box" tool for assignments, creating a file to link to Web pages students have created on external servers, or uploading slide shows to the presentation area.

Strategy 10. Traditional technologies are not overlooked.

To mitigate students' frustration for instances when access time may be slow, stopped out, or beyond a student's ability to reach a networked computer, the two instructors remind their students that telephones and faxes are options, too.

ADDITIONAL EXAMPLES OF STRATEGIES

The descriptions of these selected strategies give one perspective of the ways two online instructors acknowledge the fourfold construct for interaction in their course designs. Additional perspectives are available at http://webct2.hawaii.edu. Once there, the viewer may login to *WebCT*. To view information about strategies for the graduate level students, "webct2003gr" may be used for both the login and password. For the undergraduates, "webct2003sy" may be used for both.

Instructional Design Viewpoint. As the strategies are examined, some readers may wish to consider them from an instructional design vantage point. Within that context, learning outcomes of declarative (factual knowledge); concept learning (physical and conceptual classifications); rule learning—that is relational rule learning ("if-then" concepts), procedural rule learning (steps in a process), and higher order rule learning (problem solving); as well as attitudinal learning (Smith & Ragan, 1999) are supported with tactics embedded within the overall course design when relevant.

Declarative Knowledge. Through that prism, declarative knowledge about the course and the Web site itself is buttressed using the strategy of carefully organizing and "chunking" necessary factual materials (see Strategy 7).

Concept Learning. Students display their digitized images and present ideas about specific topics—concept learning—by classifying ideas by physical or defined properties (see Strategy 5).

Rule Learning. The fourth strategy expresses how relational rule learning can be recognized as learners find that *if* they have questions for their instructors, they can *then* clarify the issues using e-mail. Additional relational rule learning occurs as students are informed abut alternative ways to communicate outside the Web site (see Strategy 10). Procedural rule learning is planned when step-by-step processes are visualized for the students in job aids as noted in Strategy 9 and in the welcoming explanations about orientation materials on the Web site described in Strategy 3. The higher order rule learning of problem solving is guided by what might be seen as "mini" case studies when students review each others' projects and offer peer feedback (see Strategy 6).

A human version of an expert system, another strategy recommended to support problem solving, is offered as the instructors' expertise is offered in response to specific actions by the students (see strategy 8).

Attitudinal Learning. Tactics for attitudinal learning outcomes appear at the beginning of this list (see Strategy 1). There, the potential for cognitive dissonance to occur is incorporated when students are asked to examine their perspectives about success as online learners in relation to an existing framework. If differences are identified, students may very well become more open to new perspectives. As the learners examine their attitudes about online courses and specific aspects of the coursework (see Strategy 2), attitudinal outcomes are once again addressed.

FINAL THOUGHTS

Instructional designers rely on learning outcomes as part of their "toolbox" for course development. Including the additional tool—the distance education interactivity framework—can complement the traditional "tools" with its potential for offering a solid framework for distance educators and their students.

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Yamashita, S. (2003). *Synergistic cyber classes: Transcending the traditional with progressive telecollaborative learning environments* Retrieved August 13, 2003, from http://blackboard.ucalgary.ca (Note: The Blackboard server is password protected so only authorized users can access the resources on the server.)

"IN THE IDEAL COLLEGE CLASSROOM, STUDENTS WOULD SEEK MULTIPLE WAYS TO BECOME ENGAGED WITH IDEAS AND PROCESSES."

—ANNETTE SHERRY AND SHIRLEY YAMASHITA

Teaching Online
Hints from the Trenches

Pat Kelley and Nancy J. Maushak

A recent e-mail from a colleague in eastern Europe initiated a discussion about what goes into a Web course and prompted the writing of this article. Each person's experience with teaching online is unique. This article will share our experiences in creating, implementing, and managing an online course including things to consider such as software, policies, and course components.

BACKGROUND

Institutions have varied reasons for offering distance education courses. Top among these reasons is access.

From a student point of view, access "anytime, anywhere" is becoming a necessity. Family situations and workforce demands make removal of the traditional time constraints of attending face-to-face an important goal of distance education programs. Students desire and need access from convenient locations, including home or work. While the students are looking for access "anytime, anywhere," universities are hoping that offering distance education courses will allow them to access new audiences, which will result in increased student enrollment.

Many institutions offer distance education courses with the goal of making education more affordable for students and reducing an institution's per-student costs. However, in many cases, this does not occur. The up-front costs of program development and technology infrastructure can greatly impede return on investment. At many institutions, a reduction in normal fees is offset by the assessment of a technology fee, making the cost to distant students the same or greater than to on-campus students.

The National Center for Educational Statistics (NCES, 2002) estimated that 1.6 million students enrolled in distance education courses during the academic year 1997-1998. Three years later, this had grown to an estimated 2.8 million students and an estimated 118,100 different college-level, credit-granting distance education courses. Approximately one third of these courses were part of a degree program designed to be completed totally via distance education (NCES, 2003)

If you are thinking about developing an online course, there are several factors you need to consider before really getting started. These factors include: software options; interaction; support issues; content and format issues; institutional policies; and time. While we cannot provide you with more time, we can offer a framework to assist you in making a decision related to the other factors.

Pat Kelley, Texas Tech University, Box 41071, Lubbock, TX 79409. Telephone: (806) 742-1997.
E-mail: pat.kelley@ttu.edu

Nancy J. Maushak, Texas Tech University, Box 41071, Lubbock, TX 79409. Telephone: (806) 742-1997.
E-mail: nancy.maushak@ttu.edu

SOFTWARE CONSIDERATIONS

In general, there are two ways to go in developing an online course: a course management system (CMS) or WYSIWYG Web-development software. Best-known examples of CMSs are Blackboard and WebCT. Major WYSIWYG Web-development packages include Microsoft Frontpage and Macromedia Dreamweaver.

In simplest terms, a CMS provides the tools and a framework to assist instructors in the creation, teaching, and management of an online course. Your institution may have already made the decision to standardize online courses with a particular CMS. In fact, in the 2002 academic year, 30% of online courses offered by 4-year institutions used a CMS (Meerts, 2003). Typical tools and features found in a CMS include class rosters, grade book, quizzes, interaction tools, and, of course, course content. An excellent source of information about course management systems is http://www.edutools.info/course/index.jsp. At this website, you can review product specifications and compare products in order to make an informed decision when selecting a CMS.

Using a CMS has several advantages and, unfortunately, some disadvantages. In general, a CMS is relatively easy to use. Everything is included in a safe, secure environment. An instructor can choose to use all or only a few of the available tools, which usually include content management, student management, communication, assessment, and grade book. When all courses are standardized by using a CMS, students become comfortable with the environment and come to rely on the standardization. However, the setup of a CMS can somewhat restrict pedagogical decisions. This pedagogical restriction and the

degree of standardization can impact students by not allowing them to experience the diversity of faculty perspectives in alternative environments.

WYSIWYG is an acronym for "what you see is what you get." These programs allow the user to develop a Web site or interface without the need to use codes (markup) such as HTML. As you create, you can see what the result will be. Examples of true WYSIWYG editors include Microsoft's Frontpage or Adobe's PageMill. Macromedia's Dreamweaver works like a true WYSIWYG editor, but makes it easy to view code and fine-tune the results (if you have skills in HTML).

Microsoft's Frontpage is perhaps one of the easiest editors to use. At Texas Tech University, we have pre-service students use Frontpage to set up online portfolios. In less than an hour, students create a four-page website, complete with graphics and hyperlinks. Adding and fine-tuning the content takes a little longer, but that is really nothing but word processing.

Those more comfortable with technology will find Macromedia's Dreamweaver fairly easy to use. It has a higher learning curve than Frontpage, but is a more powerful application. The most current version of Dreamweaver has a function to help the Web designer meet Americans with Disabilities Act guidelines. It also works in both PC and Macintosh environments while FrontPage only works in the PC environment. If databases are your thing, Dreamweaver, along with the server technology, should be your choice.

The advantages of using a Web development tool include low cost, ease of use, and freedom to "do your own thing." While both of us have chosen to use software instead of a CMS, we recognize that there is a downside. The website you create

will not be a secure environment and will be accessible to anyone with an internet connection. To create interaction among students and between students and instructor, you will need to look for alternatives available on the Web.

INTERACTION ALTERNATIVES

An online course can be an isolating environment for both the instructor and the students. "The most important challenge facing distance education is the need to develop a rich level of personal interchange between professor and student and among students themselves" (American Federation of Teachers, 2001, p. 10). The good thing is, there are many ways to accomplish this interaction: e-mail, listservs, instant messaging (IM), discussion groups, desktop conferencing (both audio and video), fax, and even phone.

E-mail is something that most students are already familiar with and is easy to use. However, you can quickly become overwhelmed with e-mail unless you set up some guidelines. You can have Outlook filter e-mail from a class into a special folder by requiring your students to use the course number in the subject line. While this does not reduce the number of e-mails you have to deal with, it does make managing them much easier. Students seem to expect an immediate response to their e-mail (even if it is sent at 2 in the morning!). Letting them know up front to expect a response within a certain time frame can help ease some of their anxiety. Turning in assignments by attaching them to an e-mail works well, but you may need to provide a tutorial on working with attachments for your students.

Instant messaging works great for synchronous communication. Students seem to like this real-time

discussion; however, you should not require large work groups to get together this way because scheduling conflicts quickly arise. Requiring students to add you to their list of contacts for IM is a great way to have one-on-one conversations with your students. IM allows users to see when their contacts are online, so IM becomes a way of "running into your students in the hallway" and is a great way to add a more personal touch.

Discussion groups or threaded discussions work well if you provide specific discussion topics and monitor the posts. This can be a great way to allow students to think about their response before posting it, but be cautious of requiring a certain number of posts, as students quickly fall back on saying such things as "I agree" or "Good idea" without putting any thought into responses.

Sometimes it is just necessary to fall back on older technologies. A simple phone call can quickly clarify any misunderstandings and provide a real personal touch. Fax and mail work great for students who are not comfortable sending attachments. Mail can be used to send CD-ROMs with additional readings, presentations, videos, and so forth to students.

SUPPORT

The level and type of support provided to faculty in the developmental phase and the initial offering of an online course are important. Three types of support that may or may not be available at your institution are technical support, professional development, and course development assistance.

Technical support is crucial to the success of an online class. Our server crashed a month after the start of the semester and was down for several days. Students were unable to access the website and, to

make matters worse, no one from technical support had been backing up the server. Although this is a rare occurrence, you should be prepared for these types of technical problems and know from whom and where you can get help.

We have been lucky at our institution to have a Technology Learning and Teaching Center that provides a broad range of professional development. Many short courses are offered, including pedagogical concerns in moving a traditional class to the online environment, as well as courses on using the variety of software discussed previously. However, this level of assistance is not available everywhere. In reality, most instructors that teach online have spent time on their own to learn hardware and software in addition to new pedagogy crucial to the quality of an online course.

As you review websites of institutions offering online courses and programs, you will notice that, at many, course development is done by a team and not solely by the instructor. This team may include a technology professional, an instructional designer, and a course expert (you!). If this type of support is available at your institution, take advantage of it. For the most part, we design, implement, deliver, and manage our own courses. Luckily, the time requirements for course design, implementation, and delivery decrease over time. However, there are always management issues connected to the course, including maintaining the most up-to-date content and checking links.

POLICY

Policies vary among institutions. Institutional policies that can affect your decision to teach online include faculty incentives for development and delivery of online

classes, class size limits, and intellectual property.

Incentives offered by many institutions include release time, stipends, assistance such as a research assistant assigned to help with the class, and recognition toward promotion and tenure. Pachnowski and Jurczyk (2003) studied motivating factors and found that administrators feel that faculty are motivated by these types of incentives. However, the same study found that faculty who decide to teach an online course are usually intrinsically motivated. They want to utilize technology, try new methods, diversify program offerings, and reach a more diverse student population. Our personal experience supports this view. Incentives offered by the administration have been few and far between. If we had waited for policies to be in place to support online teaching, we would still be waiting. Hopefully, you will find that while you are personally motivated for teaching online, there are institutional incentives to support your efforts.

There is no answer to the question of what is the ideal class size for an online course. Class size should be set through normal channels and may vary widely, depending on the subject. Factors to consider include: the subject matter, the students, the types of assignments, and the types of feedback required for the course. The American Federation of Teachers (AFT, 2001) indicates that good distance education "generally requires more teacher preparation time than a traditional class as well as more time devoted to interacting with students" (p. 21). Students may need more interaction than in traditional classes to compensate for the lack of face-to-face interaction.

Several issues arise in regard to intellectual property when discussing online courses. Our university is still struggling with these issues,

including who owns what part or all of an online course. Check with your university to see if such a policy has been developed and what it contains. For lack of institutional policy, we currently operate on the plan that if we leave the university, the university keeps a copy of the course, but we are allowed to take a copy with us.

CONTENT AND FORMAT

Course development can be easier if you have a plan for the format and composition of the website. This format can provide a template for future course development. Remember, this is your primary communication with your students, therefore you need to include all the information you would share during a face-to-face introduction (office hours, course objectives, class policies). Class policies and protocols should be included in this section (e.g., your name must be on the assignment, penalties for late submission, a statement about accommodations for students with disabilities, possibilities for remediation of assignments, grading, and academic policies).

There are some parts that need to be included in every course and do not vary greatly from course to course, then there are parts that should be included in each course that are specific to that subject and, finally, there are optional parts that may be included in some courses—or not. The same navigation links to major portions of the course should be included on each page. The image in Figure 1 shows the banner and navigation bar from one of our online classes.

Information that should be included in every course may fall into three categories: general information, course modules (or lessons), and tools and options. General information that needs to be included are the course title and number, course syllabus/outline, course schedule, course requirements, an introduction to the course and instructor, textbooks and required readings, and a copyright statement. A START HERE type of page which gives basic instructions on registering and distance education at the university is always useful.

The course module/lesson section would include links to each of the lessons for the course. This section is the "meat" of your course. You will need to decide if you want to post (or activate) all of the lessons at one time or if you want to space them out and link them to a schedule. A separate page which lists all of the assignments and their point values could be included in this section. It is useful to have a set format for each lesson or module, a tem-

plate for you to fill in the blanks. We generally include the following:

- Introduction
- Objectives
- Step-by-step procedure
- Resources (text, hyperlinks, additional readings, etc.)
- Evaluation
- Due date

The tools and options sections should include: information on viewing options (for individuals with disabilities); information about university e-mail; a tutorial on attaching documents; using interaction tools (listservs, threaded discussions, instant messages); a link to university resources (calendars, library, registration); e-mail link to the instructor; directions for submitting assignments and checking grades; and protocols for naming assignment files.

RANDOM THOUGHTS

The following suggestions do not fall into any category, but we think they provide useful information and are things that we have learned as we have taught courses via the Internet.

It is important that your courses are accessible to as many students as possible, including individuals with disabilities. Bear in mind that
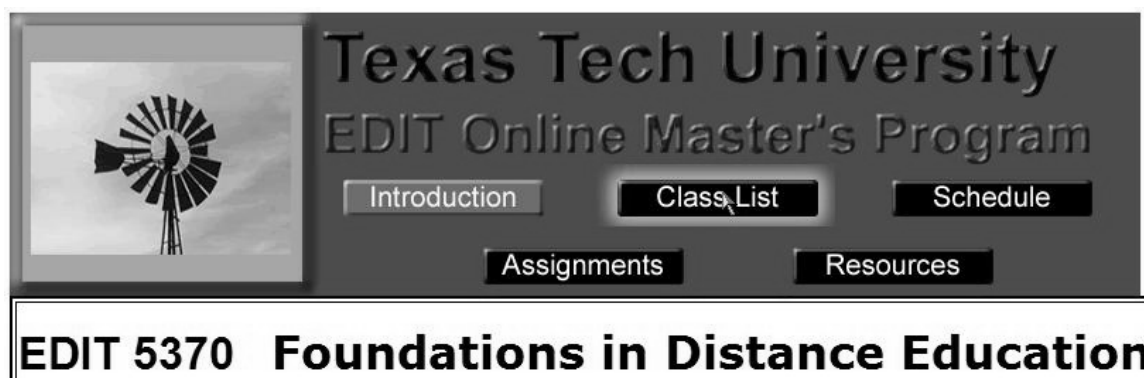

Figure 1

many students connect to the Internet on a dial-up system. Try to keep the course simple; "bells and whistles" can significantly lengthen download times, and should be added only when they make a significant contribution to the course. For example, streaming video is very useful for demonstrations, but a streaming video that is just a "talking head" is an inefficient use of technology. For students with disabilities, information on enlarging print or speech access is necessary in order to access the course. For these students, all illustrations should include "alt" tags that describe the illustration, and tables should have a text format option.

There are several suggestions related to assignments, due dates, and submissions. We have found that due dates are necessary. If you do not set due dates, you are swamped at the end of the semester with assignments to be graded. This also does not allow time for students to remediate their work. In planning your assignment schedule, it is helpful to have a separate page that indicates due dates and assignment descriptions which is then linked to the various lessons. This allows you to update each semester on one page and eliminates the need to go back each semester to each lesson module. Maintaining the integrity of tests is also an issue. You need to decide the function of the test; as a learning experience or as confirmation of knowledge. The tests or quizzes we use as a learning experience are written as if they were open-book tests. For tests that you feel are necessary as a confirmation of knowledge, you will need to set up a system that identifies a proctor (located near the student) who will administer the test.

Students feel more comfortable if they feel they know the instructor and the instructor knows them. A short page that introduces the instructor, preferably with a photograph, allows the students to connect with the instructor. The introduction can include a professional history, research interests, and may also include personal information. We find it useful to have an e-mail or submission of a self-introduction as the first assignment. This allows the students and instructor to become familiar with each other and the submission system.

SUMMARY

It is difficult to address all of the issues related to online instruction in one short article. Creating, implementing, and teaching an online course is a unique and ongoing experience. As with most things related to technology, change and development are rapid and continuous. Software options are constantly evolving and becoming easier and more accessible. Institutional policies and support are gradually being developed and provided. As with any course delivery option, content and format are being updated as the field develops. The basic framework can help you adjust as these changes are being made.

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"AN ONLINE COURSE CAN BE AN ISOLATING ENVIRONMENT FOR BOTH THE INSTRUCTOR AND THE STUDENTS. 'THE MOST IMPORTANT CHALLENGE FACING DISTANCE EDUCATION IS THE NEED TO DEVELOP A RICH LEVEL OF PERSONAL INTERCHANGE BETWEEN PROFESSOR AND STUDENTS AND AMONG STUDENTS THEMSELVES' (AMERICAN FEDERATION OF TEACHERS, 2001)."

"STUDENTS FEEL MORE COMFORTABLE IF THEY FEEL THEY KNOW THE INSTRUCTOR AND THE INSTRUCTOR KNOWS THEM."

—PAT KELLEY AND NANCY MAUSHAK

The Classics are Coming Back!

Seven classic publications in the field of instructional technology are once again available. These seven are a must for professionals in the fields of instructional technology or distance education.

Extending Education Through Technology, a collection of writings by Jim Finn, long considered the "father of educational communications and technology," features articles written by Finn decades ago that are still widely quoted and directly relevant to the issues of the field today.

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Three books on this list of classics, Ball and Barnes' *Research, Principles, and Practices in Visual Communications*, Chu and Schramm's *Learning from Television*, and Ofiesh and Meierhenry's *Trends in Programmed Instruction*, are the primary sources for research and design in instructional technology and distance education. Some claim, and they are probably correct, that much of what are considered "best practices' today can be traced directly back to the conclusions provided by these three extremely important monographs..

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Should Distance Education Constitute Different Rewards for Faculty?

Lisa O'Quinn and Michael Corry

W hile higher education has attempted to react to economic demands for skilled workers by delivering courses in formats convenient for students (i.e., distance education), it is questionable if institutions of higher learning have addressed the impact these demands have had on the internal core of the university—the faculty. Many facets of faculty's roles have changed as a result of technology and distance education (Baldwin, 1998; Gunawardena, 1992; Strain, 1987;), but it is questionable if higher education's infrastructure has provided any impetus for faculty to more fully integrate technology into their courses or participate in distance education (DeSieno, 1995).

The development of distance education technologies has created conditions that require faculty to adapt to a new way of teaching and communicating with their students. In some distance education settings, instructors and students do not have the usual face-to-face contact that exists in traditional classroom settings. Thus, special means must be devised for assigning, guiding, and evaluating students' work. In order to communicate with students, instructors frequently utilize sophisticated and expensive technological devices which are not under instructors' exclusive control and often require special technical knowledge that instructors may not fully possess.

Distance education requires not only that faculty learn how to use new technologies, it also requires a paradigm shift in how educators orchestrate the act of learning (Dillon & Walsh, 1992; Hassenplug & Harnish, 1998). As Beaudoin (1990) noted,

> The emergence of increasingly student-centered learning activities in the 1970s facilitated by new instructional technology intro-

Lisa O'Quinn, Associate Professor, Northern Virginia Community College, Division of Business and Public Services, 8333 Little River Turnpike, Annandale, VA 22003. Telephone: (703) 323-3164.
E-mail: loquinn@nvcc.edu

Michael Corry, Associate Professor, George Washington University, 2134 G. St. N.W., Room 103, Washington, DC 20052. Telephone: (202) 994-9295. E-mail: mcorry@gwu.edu

duced in the 1980s contributing to a dramatic evolution in faculty roles raises fundamental questions within the professorate about how it will contribute to the teaching-learning process in the 1990s and beyond.

In addition to creating new learning strategies that are more student-centered and learning how to use new technologies, faculty teaching distance courses also must develop their course content and determine how it will be delivered—months prior to the course start date. Planning and preparation must be seen as a front-end activity rather than a formative one that continues throughout the course (Cyrs, 1989; Wolcott, 1993). Faculty must decide by what means they will deliver courses, define the content, and decide how they will address the content of the course in the time they are allowed.

Thus, given the time and effort that faculty must devote to learning to identify appropriate means of using new technologies and adopting new ways of facilitating learning, the question remains, as faculty roles change, should institutional rewards also change?

The literature reveals that very few institutional rewards exist for the purpose of motivating faculty to teach via distance education. Wolcott (1999); Betts (1998); Clark (1993); Olcott and Wright (1995); Dillon and Walsh (1992); Wagner et al. (1999); Smith, Eddy, Richards and Dixon (2000) all noted the absence of institutional rewards for faculty participation in technology and/or distance education training programs. Survey results from Wolcott (1999) and Betts (1998), both of whom conducted their research at Carnegie I classified institutions provided a means by which faculty could receive credit toward research or scholarship through their participation in distance education. Most faculty surveyed by

Betts and Wolcott did not receive additional monetary compensation for developing or teaching distance education courses At best, the most external recognition faculty could hope to have achieved was recognition from a department chair for "carrying their academic load" for the department via distance education.

Betts' study, conducted at the George Washington University, also measured what factors motivated faculty to participate in distance education. Betts surveyed 8 deans and 993 faculty and received responses from 532 faculty and 7 deans. More than half of the faculty surveyed replied that they did not believe that they should be rewarded any differently for their involvement in distance education (Betts, 1998).

Wolcott (1999) pilot tested a survey of faculty at 45 Carnegie Category I (research) private and public institutions to examine three factors: (1) locus of motivation; (2) institutional values and commitment; and (3) return on investment. The 33 of 46 faculty members who responded included tenure track, research, and clinical faculty who had taught or were teaching a distance education course at the university.

In response to Wolcott's (1999) questions which attempted to ascertain how faculty measured the return on their investment of deciding to teach distance education courses, faculty tended to be neutral in many of their responses, leaning toward the disagree response scale. The only exception to these neutral to negative responses was one question which addressed the equity of their rewards for teaching via distance education as compared to the rewards (if any) received by their colleagues. Forty-six percent of faculty surveyed said that they agreed that the rewards they received for

teaching distance education courses were comparable to compensation other faculty received for the same type of work. Fifteen respondents strongly disagreed with the statement that their distance education teaching had earned them strong recognition from their department chairs, college, or university.

The majority of faculty who responded to Wolcott's (1999) survey strongly disagreed with the following statements: (1) their participation in distance education earns them credit toward improving their record of research and scholarship (69.7%); (2) compensation for teaching a distance education course is equitable (66.6%); (3) faculty receive equal credit for producing distance education materials (54.6%); (4) the rewards they receive in return for teaching distance education are proportionate to the amount of time and effort they put forth (54.6%); (5) their efforts in distance education earn them informal merit (54%) and (6) their participation in distance education allows them to have a positive impact on their ability to receive tenure or promotion in professorship rank (51.1%). The results from Wolcott's survey reinforce evidence of a lack of rewards in distance education (Gilcher & Johnstone, 1989).

Wolcott's (1999) findings also revealed a correlation between type of response and faculty's academic rank. Assistant professors strongly disagreed that the rewards they received for involvement in distance education were equal to those their colleagues received for classroom education. Assistant professors also disagreed more frequently than their fellow respondents that the rewards for distance education were equal to those rewards given for classroom teaching (67.6%) and equal with respect to the amount of time and energy invested (83.4%).

Associate professors, more often than assistant professors or full professors surveyed, disagreed more strongly that their efforts in distance education had a positive effect on their gaining tenure or advancement in rank. They strongly disagreed that their involvement in distance education earned them formal rewards or recognition (66.7%) or that it had a positive impact on them earning merit increases (55.6%). These two areas of distance education (lack of formal rewards and lack of merit increases), coupled with the lack of distance education's impact on tenure and promotion, generated more strongly held negative responses by assistant and associate professors. These two groups of faculty also strongly disagreed that their participation in distance education earned them more credit in improving their record of services and earning informal recognition.

When examining the land grant institutions that were included in Wolcott's (1999) survey, they provided evidence of engaging in alternative delivery methods and reaching students beyond the physical bounds of their campuses. All the universities surveyed included distance education in their mission statements, but their commitment to distance education was not reinforced in their fiscal allocation for distance education programs. When evaluating faculty performance, all institutions that participated in the survey rewarded faculty more highly for their research than for their distance or classroom teaching. However, given the small sample size of Wolcott's survey, these findings may not be representative of the literature which perceives a lack of equitable rewards for faculty who engage in distance education

The differing levels of support and recognition of distance education faculty between the university and department levels led one faculty member included in Wolcott's

survey to mention that the provost should recognize the value of distance education and reward faculty accordingly. Department chairs cannot run the risk of rewarding their faculty if the provost fails to see the value in this type of education. Thus, the attitude of the administration has a direct bearing on faculty teaching in distance education and this support allows departments to reward their faculty.

Most distance learning programs utilize both full-time and part-time faculty in the delivery of their programs, as few distance learning programs have enough full-time faculty who can devote their entire teaching loads to distance education courses. Some institutions hire practitioners to serve as distance learning mentors who are academically credentialed, but have very little distance learning experience. Although having practitioners serve as course mentors or assistants is accepted, the credibility of the distance learning course still rests on full-time faculty, even if there are small numbers of these faculty who choose to participate in distance education programs (Beaudoin, 1990). Thus, universities find ways in which to reward these faculty, as rewards will enable universities to not only recruit faculty to teach in distance education, but to retain them as well. If faculty are not rewarded or recognized for their contributions to distance education, they may choose to engage in other activities that are more highly valued by the institution, as faculty are cognizant of the risk they may run by participating in distance education.

BACKGROUND OF THE STUDY

This study analyzed faculty responses to the questions "Should community college faculty be

rewarded differently for their involvement in distance education?," "How should faculty be compensated for participating in distance education training?," and "How should faculty be compensated for developing distance courses?" The population of this study included division chairs and faculty at five campuses of one community college in the Southeastern part of the United States whose teaching loads consisted of (1) distance education courses and classroom courses; (2) solely distance courses; and (3) solely classroom courses. At the time this survey was conducted in the fall of 2001, the total student headcount consisted of 39,138. All division chairs (15) and faculty (572) were surveyed, and 13 division chairs and 167 faculty replied.

The community college where this study was conducted offered courses via distance education using four methods: (1) written correspondence courses through the use of the U.S. Postal Service; (2) Blackboard via the Internet; (3) telecourses; and (4) audiovisual courses. Telecourses are delivered through the seven cable television systems currently available in the state where the community college operates. The audiovisual courses are provided through an asynchronous learning network. Blackboard version 5 is a comprehensive and flexible e-learning software platform that delivers a course management system, and, with a Level Two or Level Three license, a customizable institution-wide portal and online communities. In addition, a Level Three license includes advanced integration tools and application programming interfaces to seamlessly integrate Blackboard 5 with existing institution systems (http://www.blackboard.com/).

FACULTY CHARACTERISTICS

The divisions in which the 116 "classroom faculty" who responded to the survey taught included a range of seven disciplines from liberal arts to the sciences and social sciences, the 51 multiple delivery faculty who responded to the survey taught across five disciplines, and the "distance-only faculty" who responded reflected three disciplines. The 13 division chairs who responded to the survey represented six disciplines (see Table 1).

FACULTY APPOINTMENT STATUS

The vast majority of faculty were hired on a contract basis (85% of "classroom faculty," 84% of "combination-delivery faculty," and 100% of "distance-only faculty"). Only a small percentage had received tenure (11% of "combination-delivery faculty" and 5% of "classroom faculty."

FACULTY COURSELOADS

"Combination-delivery faculty" who taught both distance and classroom courses appear to have had a heavier teaching load than did their colleagues who only taught classroom courses or those who taught only distance courses. However, any faculty member who teaches via distance education at this community college has to contend with "rolling admission" (a policy which allows students to be admitted to their classes at any point during a semester). Division chairs were required to teach one course each academic year that could be taught either in a traditional classroom setting or via distance. The reader should note a limitation of this study; courseload was calculated by the number of different courses faculty taught, not by the number of sections (see Table 2).

YEARS OF EXPERIENCE IN DISTANCE EDUCATION

"Combination-delivery faculty" and "distance-only faculty" had, on average, the same number of years experience in distance education (see Table 3).

FACULTY TRAINING IN DISTANCE EDUCATION

As expected, higher percentages of faculty who taught distance courses had received distance training than did faculty who only taught classroom courses (see Table 4).

DESIGN AND METHODOLOGY

Survey methodology was deemed the most appropriate means of data collection for this study, as it is meant to serve as a foundation for

Table 1.   Divisions in which Classroom Faculty Respondents Teach

	Liberal Arts Division	Math, Science, and Engineering	Business and Technologies	Social Sciences	Health Technologies	Visual and Performing Arts	Nursing
Classroom Faculty Respondents	32%	24%	16.5%	11.2%	8%	6%	2%
Multiple Delivery Faculty	35%	18%	39%	0%	6%	0%	0%
Distance-only Faculty	43%	14%	43%				
Division Chairs	15%	31%	23%	15.5%		8%	7%

Table 2.   Course Loads by Faculty Type

Faculty Group	Average Number of Classroom Courses Taught	Average Number of Distance Courses Taught
Classroom Faculty	4.35	0
Combination-delivery Faculty	3.5	2.25
Distance-only Faculty	3	0

Table 3. Years of Faculty Participation in Distance Education

Faculty Group	Mean Number of Years Teaching Via Distance Education	Over 10 Years of Experience Teaching Via Distance Education	6 to 9 Years of Experience Teaching Via Distance Education	2 to 5 Years of Experience Teaching Via Distance Education
Combination-delivery Faculty	5 years	28%	17%	33%
Distance-only Faculty	5 years	44%	28%	28%

Table 4. Percentage of Faculty Who Have Received Distance Education Training and Their Interest in Further Training

Faculty Group	Have Received Training	Interested in Further Distance Training
Classroom Faculty	16%	7%
Combination-delivery Faculty	56%	31%
Distance-only Faculty	43%	43%

future data collection at other community colleges. During the fall of 2001, 572 faculty and 15 division chairs at this community college received cover letters that provided an overview of the study and a copy of the survey. Of the 167 faculty who responded, 116 faculty taught only classroom courses; 7 taught distance courses, and 44 taught classroom and distance courses. Eight of the 13 division chairs who responded to this survey had taught a distance course.

The survey was based on Betts' (1998) instrument. The first section of both surveys addressed demographic questions. Additional questions focused on faculty support, rewards, and the changing role of the faculty member in distance education and how faculty and division chairs perceived distance education as relating to the community college mission. Data analysis included both qualitative (short answer questions), and quantitative (means, standard deviations, frequency distributions and percentages).

Faculty were divided into three categories by the means they used to deliver their classes: (1) "distance-only faculty" refers to faculty who taught courses via distance education (i.e., via the Internet, correspondence, CD-ROM, or a combination of all three delivery systems); (2) "combination-delivery faculty" refers to those faculty who taught traditional classroom courses and distance courses; and (3) "classroom faculty" who taught only traditional face-to-face classroom courses. All classroom faculty, distance faculty, and division chairs were asked to respond to the questions "Should community college faculty be rewarded differently for their involvement in distance education?" "How should faculty be compensated for participating in distance education training?" and "How should faculty be compensated for developing distance courses?"

Results from the question, "Should community college faculty be rewarded differently for their involvement in distance education?" were measured in the means of responses from faculty and division chairs. Means averaging between 1.0 and 2.0 were cited as strongly disagreeing, means averaging between 2.0 and 3.0 were noted as disagreeing, means averaging between 3.0 and 4.0 were neutral, means averaging between 4.0 and 5.0 were noted as agreeing, and means greater than 5.0 were noted as strongly agreeing. Responses to the follow-up question of "If yes, why should they be rewarded, and if no, why shouldn't they be rewarded?" were coded as qualitative data and are presented in a summary format with actual quotes to illustrate faculty's actual viewpoints.

In order to respond to the questions "How should faculty be compensated for participating in distance education training?" and "How should faculty be compensated for developing distance courses?" faculty were asked to choose one or all of the following responses: release time, stipend, neither stipend or release time. Answers to these questions were analyzed in terms of percentages by faculty group.

DATA ANALYSIS

Table 5 displays the results when all survey respondents were asked if distance faculty should or should not be rewarded differently for their participation in distance education.

Table 6 displays the results when all survey respondents were asked if distance faculty should be rewarded by release time or stipend or not rewarded at all for participating in distance education training.

Table 7 displays the results when all survey respondents were asked if distance faculty should be rewarded by release time or stipend or not rewarded at all for developing distance courses.

ANALYSIS OF FACULTY RESPONSES TO OPEN-ENDED QUESTIONS

Classroom faculty who believed that distance faculty should be rewarded differently for participating in distance education based their decision on the extra work involved in distance education (i.e., the time they take to respond to students' e-mails, training, course design and development, and updating of materials). "Yes, distance faculty should be rewarded differently, based upon how many students they support." "Based upon the amount of students equals increased work should equal increased pay." "Distance faculty should be rewarded differently if the in-put for distance courses is more." "Distance education is more time intensive in many ways—training development, managing the technology and troubleshooting." Only one faculty member voiced concern over intellectual property rights: "If course development includes development of media (like textbook) faculty should reap some long-term benefit. Especially if sold!"

A large percentage of classroom faculty voiced a concern that all faculty should receive the same rewards regardless of how their courses are delivered. "Course development is course development. It all takes time for new and novel approaches or new courses." "A course is a course and all have different demands." "I don't believe that community college faculty should be rewarded differently as they are both teaching—one isn't necessarily better or more complicated than the other. Distance faculty should receive comp time." "Both modes of delivery are difficult to do, so they shouldn't be rewarded differently." "People should be rewarded regardless of their approach. Rewards should be based upon results not methods or approach." "Distance faculty shouldn't be rewarded differently.

Table 5. Distance Faculty, Classroom Faculty, and Division Chairs' Responses to the Question "Should Faculty be Rewarded Differently for their Participation in Distance Education?"

Faculty Type	Different Rewards for Distance Education		
	Yes	No	Not Sure
All Distance Faculty	51%	37%	12%
Distance Faculty Who Teach Only Distance Courses	43%	43%	14%
Classroom Faculty	33%	45%	6%
Division Chairs	46%	39%	

Table 6. Distance Faculty, Classroom Faculty, and Division Chairs' Responses to the Question "How Faculty Should be Rewarded for their Participation in Distance Education Training?"

Faculty Type	Release Time	Stipend	Neither Stipend nor Release Time	Either Stipend or Release Time	Both Stipend and Release Time
All Distance Faculty	29%	12%	18%	4%	22%
Distance Faculty Who Only Teach Distance Courses	29%	0%	0%	29%	14%
Classroom Faculty	27%	8%	22%	1%	15%
Division Chairs	8%	8%	39%	15%	15%

Table 7. Distance Faculty, Classroom Faculty and Division Chairs' Responses to the Question "How Faculty Should be Rewarded for Developing Distance Education Courses?"

Faculty Type	Release Time for Course Development	Stipend for Course Development	Neither Stipend nor Release Time for Course Development	Either Stipend or Release Time for Course Development	Both Stipend and Release Time for Course Development
All Distance Faculty	37%	12%	4%	4%	39%
Distance Faculty Who Only Teach Distance Courses	14%	0%	0%	14%	57%
Classroom Faculty	35%	8%	10%	1%	24%
Division Chairs	39%	8%	8%	15.5%	31%

Teaching is a person to person thing, not a person to machine thing." "Distance faculty shouldn't be rewarded differently. Just because someone teaches in this environment doesn't mean they are working harder, doing more, being more effective, etc. than someone teaching in traditional ways and using technology, i.e., power point presentations."

Other classroom faculty thought that delivery method should not automatically dictate a reward. "Teaching is teaching—different techniques aren't what we should reward. You should reward for a job well done—not the technical alone." Some faculty perceived that faculty rewards should continue to be based on how many full-time enrollees (FTE) they produce, regardless of how much time and effort they devote to distance courses. "Much more work is involved and the continued time in interaction is not reflective of FTEs." Others believed that rewards should be based on the quality of the instruction. "This is a case by case decision—need to know what distance education means, showing videos or detailed interaction

with the individual." One faculty member believed that compensation for distance education should be less than the amount classroom faculty receive. "I think they should be paid less. It's not nearly as difficult. I don't get anything for learning new material and developing new courses."

Classroom faculty who had previously taught via distance cited many of the same reasons as did their colleagues for not participating, mainly the heavy workload involved in delivering distance courses, the lack of rewards, and the absence of intellectual property rights. "I never felt that I was fairly compensated for all the additional work that distance education requires." "The preparation and workload are extremely demanding. The teacher is responsible for all aspects of the course plus technical and support areas." "Designing classes is very labor intensive and not properly remunerated at the community college where I presently teach. I receive no compensation for the time spent developing the distance course, yet I do not own the copyright to it." Classroom faculty also criticized the way in

which faculty load is calculated, and a few said that if they taught distance courses, they would generate more teaching credits than they need and therefore would not be paid for them.

Other classroom faculty cited the heavy workload of distance education as the reason why they have not become involved in this delivery method. "Any faculty member involved in distance education must spend endless hours being available to students, some of whom are night owls and expect you to be so too. No extra consideration, appreciation or remediation accords to distance faculty. Their time is abused."

Distance faculty's preference for asynchronous or a mix of synchronous and synchronous communication had a direct bearing on their support of release time for training and course development. They justified their need for release time by the increased workload they encounter as a result of teaching via distance. "Distance faculty should be granted release time as distance education is more time consuming to design and deliver." "Faculty who participate in distance educa-

tion should be rewarded differently for the time to develop course materials necessary to learn the software and there should be a decrease in class size since distance learning requires more individual attention and contact with each student." "There are just different forms of education. The time demanded for preparation has to be considered for distance education." "Faculty should be rewarded for course design and development because of the long learning curve for web design and the time spent developing it."

Other distance faculty expressed concern about the number of courses and students in each class that constitutes an equitable workload for distance faculty.

"Student cap at twenty and thereafter an overload ratio." "The intensive nature of one to one intervention with students must be considered in calculating reasonable workloads." "Classes should be smaller. Distance education is a labor intensive way of teaching – amounts to one to one with many students." "Yes, distance faculty should receive rewards at certain levels of enrollment." "The College needs to take into account the number of students in an on-line course and reward accordingly."

A small percentage of distance faculty agreed with their colleagues who teach classroom courses that faculty who teach classroom courses and those who teach distance courses should receive the same rewards. "Distance faculty should not be rewarded differently as we all have the same teaching load." "Distance education should be regarded as another method, not better or worse." "If they keep the teaching load the same for traditional classes, I don't think faculty should have any special rewards." "No, distance faculty should not receive different rewards. It's similar to classroom teaching."

The majority of faculty who only taught distance courses thought that distance faculty should be rewarded or receive greater compensation. Their rationale was based on their experience of distance education requiring a "longer learning curve at the beginning" and a greater time commitment overall than classroom teaching. Of the seven faculty at the community college whose teaching loads were comprised solely of distance courses, only two did not perceive distance faculty as deserving greater rewards. Distance faculty who expressed a desire for greater rewards defined them as including higher pay, release time, technical support, and greater flexibility in campus office hours. Although when asked what effect greater rewards would have on their participation in distance education, they all agreed that it would have little impact, as they all enjoy teaching in this delivery mode. They all agreed that their community college was committed to providing quality distance education, but some believe this commitment was hindered by lack of state funding.

The majority of division chairs replied that distance faculty should receive some type of reward for their participation in distance education, but should not be rewarded for participating in distance education training. Two division chairs believed that distance faculty should be given a choice of release time or stipend. One chair reasoned that "stipend or release time are incentives for them to learn a new method of instruction." One chair thought that faculty should be rewarded differently, but only to design distance courses. Another division chair though that faculty should be rewarded differently due to the increased workload and added that a reduced teaching load and release time for development should also be given. Two division

chairs explicitly stated that their distance faculty should not receive different rewards. One chair reasoned that both classroom and distance faculty have equal teaching loads while the other claimed that we should not be rewarding faculty but should spend our time trying to recruit faculty who want to teach via distance."

Distance faculty also believed that quality distance courses should be directly related to compensation. "I believe that the more important issue regarding compensation deals with the quality and student enrollment." Some distance faculty perceived their loads and roles as educators to be the same as their colleagues who teach in traditional classrooms, and therefore their rewards should be the same as well.

SUMMARY

Faculty who responded to this survey represented a broad range of academic disciplines. However, the researcher cautions the reader to limit generalizations of findings to community colleges that are located in large metropolitan settings and have a small percentage of the faculty who teach distance courses.

Faculty and chairs' generated differing views in response to the question, "Should their college reward distance faculty differently for their involvement in distance education than for their teaching traditional classroom courses." Of those faculty and chairs who responded, division chairs narrowly approved of different rewards for distance faculty (46% approved while 39% did not favor different rewards). Classroom faculty were more ardent in their disapproval of different rewards for distance education faculty (45% did not favor different rewards and only 33% supported a different reward system), as they reasoned

that distance faculty have the same responsibilities as classroom faculty.

The only classroom faculty who supported different rewards for distance education teaching were those who had previously taught in this type of environment. They supported a different rewards system based on the workload and greater number of students that distance faculty must accommodate. Faculty who exclusively taught distance courses and those who taught a combination of classroom and distance courses were divided over the issue of different rewards. "Distance-only faculty" were evenly divided (43% favored different rewards and 43% did not favor any rewards), while 51% of "combination faculty" favored different rewards and 19% did not. A portion of "distance-only faculty" perceived themselves as having the same responsibilities as their colleagues who taught traditional classroom courses, and did not deem their choice to teach in a different environment as a rationale for different rewards. However, other "distance-only faculty" thought that different rewards were justified by their workload and larger classes.

Division chairs were once again narrowly divided on the issue of faculty rewards for distance education training (39% did not support any type of reward while 46% favored some type of compensation). Of the classroom faculty who responded to this question, 49% were against faculty receiving rewards for distance training and only 33% favored some type of compensation. Both groups of distance faculty overwhelmingly supported some type of compensation for training (66% of combination delivery faculty and 98% of distance-only faculty supported rewards for training).

When the question of compensation for distance course development was posed, all four groups overwhelming supported either release time, stipends, or both (68% classroom, 100% of combination-delivery faculty, 92% of distance-only faculty and 92% of division chairs).

CONCLUSION

The skills and knowledge that distance faculty must develop in order to deliver distance education courses are quite different from those they learned for classroom instruction. Thus, as faculty's roles and responsibilities change and as the expectations of faculty change, so too should the reward system respond to that change (Garrett & Weiner, 1999; Harrison & Bergen, 2000). Traditionally, higher education has rewarded professional development with promotion and tenure. Merely expecting faculty to embrace distance education without any rewards linked to promotion and tenure can only discourage faculty participation (Olcott, 1991). The related issues of release time, monetary compensation, teaching load, and available training all shape faculty's perceptions of distance education and thereby their willingness to engage in it. Thus, institutions must provide the proper support for faculty and enable them to see, through an allocation of resources, that distance education is a priority at their institution (Olcott & Wright, 1995).

Institutions should also institute measures that will ensure high academic standards for distance courses. Faculty who have taught only in traditional classroom settings still have reservations about distance learning, especially in regard to the their perceptions of its required workload and the quality of learning (Freberg, Floyd, & Marr, 1995). Classroom faculty question, from a pedagogical context, the quality of student and faculty interaction, peer relationships that are formed, the role distance education serves within the mission of the college, and how it contributes or detracts from the school's relationship to the surrounding community (Clark, 1993; Newson, 1999). The role distance education plays in serving the community is especially relevant to the community college.

In addition to the impact distance education has on relationships involving the faculty, the college and the student, classroom faculty also seek evidence of how technology has improved teaching and learning, as many view it as substituting their role as educators (Beaudoin, 1990; Ehrmann, 1999). Classroom faculty also project that they would miss students' verbal cues so easily seen and interpreted in a classroom setting (Gunawardena, 1990).

However, while distance education courses are being examined for their content and academic rigor, classroom courses need to be held accountable to these same standards. A dean of distance learning who was interviewed for this study stressed that the professor, course content, and teaching methodologies used for every distance course continue to be assessed. However, he questioned, "So when they say, 'It's not as good as'—on what criteria? You've got good and bad on campus, you've got good and bad distance education. The difference is we know." Thus, as enrollments of distance education students continue to increase, colleges should establish standards of teaching and learning for distance and classroom courses and hold all accountable to the same criteria.

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"WHILE HIGHER EDUCATION HAS ATTEMPTED TO REACT TO ECONOMIC DEMANDS FOR SKILLED WORKERS BY DELIVERING COURSES IN FORMATS CONVENIENT FOR STUDENTS, IT IS QUESTIONABLE IF INSTITUIONS OF HIGHER EDUCATION HAVE ADDRESSED THE IMPACT THESE DEMANDS HAVE HAD ON THE INTERNAL CORE OF THE UNIVERSITY—THE FACULTY."

"THUS, AS ENROLLMENTS OF DISTANCE EDUCATION STUDENTS CONTINUE TO INCREASE, COLLEGES SHOULD ESTABLISH STANDARDS OF TEACHING AND LEARNING FOR DISTANCE AND CLASSROOM COURSES AND HOLD ALL ACCOUNTABLE TO THE SAME CRITERIA."

—LISA O'QUINN AND MICHAEL CORRY

A Model for Designing Online Collaborative Learning

Anthony R. Artino, Jr.

The educational value of well-developed collaborative learning activities has been demonstrated in both traditional and online learning environments (Felder & Brent, 1996; Hiltz & Benbunan-Fich, 1997; Smith & MacGregor, 1992). For educators, however, the difficult part is knowing how to start the development process and what to include in a collaborative learning activity. The purpose of this article is to provide a systematic roadmap for designing online collaborative learning activities. By following the instructional design model presented here, educators can produce well-planned, interactive, collaborative learning activities that encourage teamwork and social negotiation, and challenge students to construct their own understanding of new information.

For most traditional classroom instructors, designing collaborative learning (CL) activities for a distance learning course is no easy task. Questions like "What needs to be included in an online collaborative activity?" "How should the class be grouped?" and "How will student performance be measured and graded?" are just a few of the many questions that come to mind. The goal of this article is to help the average instructor answer these and many other difficult questions by providing a "how-to guide" for creating online CL activities. To accomplish this goal, the paper is organized into four sections: (a) rationale—a discussion of the need, purpose, and value of online CL; (b) procedures—a description of the step-by-step procedures for designing online CL activities; (c) design model—a discussion of how the step-by-step procedures can be organized into a general CL design model; and (d) analysis—a short discussion of how each stage in this general model is similar to and/or different from the Dick and Carey model, a traditional instructional systems design (ISD) model.

RATIONALE

In a traditional face-to-face classroom, the burden of communicating course material resides primarily with the teacher (Felder & Brent, 1996). In this paradigm, the teacher is responsible for lecturing, designing individual and group assignments, and grading. In most online courses, however, much of the burden is shifted to the students, as they are required to assume increased responsibility for their own learning. With this shift toward a more learner-centered environment, the instructor also assumes a new and often unfamiliar responsibility: providing students "with opportunities to learn independently and from one another" (Felder & Brent, 1996, p. 1).

A well-designed and developed CL activity fits perfectly into this new, learner-centered paradigm. Collaborative learning is a term that describes an educational approach characterized by students interacting in groups with other students,

Anthony R. Artino, Jr., M.S., Graduate Student, Instructional Systems, Florida State University, 50 Hase Road, Pensacola, FL 32508.
Telephone: (850) 458-2121.
E-mail: tnt101097@bellsouth.net

with teachers, and with the course material (Smith & MacGregor, 1992). This type of learning is "learner-centered rather than teacher-centered and knowledge is viewed as a social construct, facilitated by peer interaction, evaluation and cooperation" (Hiltz & Benbunan-Fich, 1997, p. 2).

The educational value of well-developed CL activities has been demonstrated in both traditional and online learning environments (Felder & Brent, 1996; Hiltz & Benbunan-Fich, 1997; Smith & MacGregor, 1992). Some of the benefits of student-centered CL activities include "increased motivation to learn, greater retention of knowledge, deeper understanding, and more positive attitude toward the subject being taught" (Felder & Brent, 1996, p. 1). As a fundamentally constructivist idea, CL activities also encourage social interaction, teamwork, and knowledge construction as students work in purposeful ways with new information, ideas, and skills that are embedded in rich contexts. Examples such as collaborative writing, cases studies, and debates all require that students be actively engaged in course content, becoming immediate practitioners instead of distant observers (Smith & MacGregor, 1992).

PROCEDURES

Although the pedagogical benefits of using CL activities in a distance learning course are undeniable, the practical side of actually creating effective CL activities is difficult. There are, however, a number of step-by-step procedures that, when followed, can help remove some of the guesswork from the design and development process. The following is a list of questions to ask and procedures to follow when creating online CL activities. These steps fit into an overall design and devel-

opment model for CL activities that will be discussed in more detail in the next section.

1. ESTABLISH YOUR OVERALL INSTRUCTIONAL GOAL

What is your overall instructional goal? This question should begin the design and development process and represents the first of four planning stages. This is a very broad stage where you determine, on a macro scale, what you want your students to get out of the activity. At this stage, you should also begin to think about the structure of your course and how a CL activity could fit into that structure, as well as with your students' experience level and the course content. Some practical questions to consider include "Where would a CL activity logically fit into the class?" "How large is the class?" "What are the student demographics?" "How experienced are the students with CL activities?" and "How well do the students know one another?" (Cooper & Robinson, 1997).

2. IDENTIFY COLLABORATIVE LEARNING ACTIVITY OBJECTIVES

The next step in the planning process is to identify, more specifically, the learning objectives that you expect your students to achieve by the end of the CL activity. It is important to keep in mind that most CL activities do more than just improve student achievement. They also require that students use social skills, work together in teams, and deal with the multitude of problems that can occur during group assignments (i.e., conflicting schedules, communication problems, and personality clashes). Additionally, course objectives must be clearly defined in this stage. Is the goal of the activity to help students master concepts and facts, or do you intend for the CL activity to

enhance student skills and change attitudes? These questions should be addressed in this stage, keeping in mind the idea that CL activities, by their constructivist nature, tend to promote advanced cognitive outcomes such as analysis, synthesis, and evaluation (Driscoll, 2000). Finally, both your overall instructional goal as well as specific learning objectives must be well developed; they will need to be clearly articulated to your students when you write your activity instructions (see Step 5, below).

3. CHOOSE AN OVERALL COLLABORATIVE LEARNING STRATEGY

The third step in the planning process is to choose from a variety of CL activities, based on the specific learning objectives identified above. One important item to consider in this stage is do you want your CL activity to require synchronous (i.e., chat rooms, instant messages, and phone meetings) or asynchronous (i.e., e-mail and threaded discussion boards) group interaction? Bear in mind, your answer to this question need not be limited to one or the other. Blended activities that utilize both synchronous and asynchronous communication technologies may be more appropriate and may allow you to capitalize on the benefits of both. For a more complete list of things to consider when choosing between synchronous and asynchronous interaction options, see *Similarities and Differences Between Modes of Communication*, by Jeong (2002).

Another important item to consider when choosing an overall CL strategy is instructor feasibility. Specifically, how difficult is it going to be for you (or another instructor) to facilitate, monitor, and grade the CL activity? Additionally, if you plan to include multiple CL activities into

one course, how feasible is it to do these things week after week? CL activities require a significant time commitment on the part of the students, but they also increase instructor workload. Do not underestimate your time commitment; it may be greater than the time required to prepare and deliver a traditional lecture (Cooper & Robinson, 1997).

Although a complete list of online CL activities is outside the scope of this article, the following list is provided to give you a better feel for some of the available options. Types of online CL activities include: (a) student debates, both synchronous and asynchronous; (b) collaborative writing activities; (c) group Web-development projects; (d) case study examinations; (e) discussion groups; (f) peer editing activities; and (g) information collections. For additional CL ideas, please visit the following web resources:

- *Doing CL,* http://www.wcer.wisc. edu/nise/CL1/CL/doingcl/ DCL1.asp
- *What is Collaborative Learning,* http://learningcommons. evergreen.edu/pdf/collab.pdf
- *Collaborative Activities,* http:// www.wvu.edu/~ruralnet/ current/whatare.htm
- *Online Collaborative Projects,* http://eduscapes.com/tap/topic1.htm
- *Computers in Teaching and Learning,* http://www.staffs.ac.uk/cital/ collab.html

4. PLAN COLLABORATIVE LEARNING ACTIVITY

The final step in the planning process is to determine the specifics of your chosen CL activity. Items to consider include:

How are students to be grouped? Generally speaking, the shorter the

activity, the smaller the groups, and heterogeneous groups are normally better than homogenous groups (Cooper & Robinson, 1997). Additionally, groups can be manipulated to ensure maximum interaction. For instance, a debate might be organized such that students with differing opinions on a topic are grouped together, thereby encouraging them to interact and negotiate group consensus.

How structured is the CL activity? Normally, the less experience your class has with CL activities, the more structure you will need to provide (i.e., you will have to give them well-defined end points, establish individual roles within the group, and provide a step-by-step method for completing the task). As the class gets more experience with CL, the structure of your activities can be loosened (i.e., you can give them more open-ended assignments, let the group decide specific roles, and provide little or no specific instructions for completing the task).

5. WRITE STEP-BY-STEP INSTRUCTIONS

Once you have planned your CL activity, it is time to write step-by-step activity instructions. This step is extremely important, as the activity description is the first thing students will reference if they have questions concerning the assignment. Step-by-step instructions should include activity objectives, concepts to be covered, the activity timeline, activity structure, the specific deliverables, student and group success criteria, and student assessment criteria (i.e., grading). Remember that inexperienced students will not only need more structure in their activity, but will likely need more detailed instructions as well.

6. DEVELOP ASSESSMENT TOOLS

The final step before you implement and test your newly developed CL activity is to determine exactly what assessment tools will be used to grade student performance. Deciding how to grade CL activities is one of the most challenging aspects of the design and development process. This is because

> collaborative activities often have several goals—individual learning on the part of each student, the successful functioning of a team, and a collaborative product that may be measured against diverse criteria. In other words, one reason why it is difficult to evaluate collaboration is that you must examine the *process* as well as the *product* of the group's work. (Enerson, Johnson, Milner, & Plank, 1997, p. 3).

One way to address this challenge is to combine process grades with final product grades to produce an overall grade. While assessing the final product is fairly straightforward, assessing the process can be more difficult. It can be accomplished, however, by monitoring and observing group interactions and by requiring that each student evaluate his or her fellow group members. Final product grades and process grades can then be weighted based on your specific activity objectives. However you decide to grade your CL activity, remember to "inform the students of the grading policy at the start of the project, so that your expectations for the assignment are clear" (Enerson et al., 1997, p. 3). Finally, provide regular feedback to your students both during and after the CL activity. Frequent feedback will help all participants know if they are on the right track and will eliminate surprises at the end of the activity (Cooper & Robinson, 1997).

COLLABORATIVE LEARNING DESIGN MODEL

All of the questions/procedures listed above can be organized into a general CL design model (see Figure 1). This model is a derivative of the Reiser and Dick model, a traditional ISD model originally created for teachers, not instructional designers (Gustafson & Branch, 1997). The original teacher-oriented model emphasizes instructional planning, an idea that is consistent with the CL design model presented here. To address some of the CL-specific procedures discussed in the previous section, the Reiser and Dick model has been modified to include identification of a general CL strategy and writing of step-by-step activity instructions. The revised CL model also includes a summative evaluation stage (described in detail below), something not specifically addressed in the Reiser and Dick model. For more information on the Reiser and Dick model, see Gustafson and Branch (1997).

Although most of the stages in the CL design model were discussed in detail in the previous section of this article, the following discussion is designed to complete the explanation of the CL activity design model. It includes information on the entry point for the model, summative evaluation, and revision of your CL activity.

ENTRY INTO THE COLLABORATIVE LEARNING DESIGN MODEL

For most instructors considering online CL, the logical entry point into the CL design model is stage one—identify instructional goals. That being said, it is not unusual for an instructor to begin the process at another stage. For example, you might discover an interesting CL activity that you would like to try in your online course. In this case, the activity may already have step-by-step instructions, as well as established assessment tools. With those stages already addressed, you should still plan to identify an overall instructional goal and specific learning objectives. Likewise, you should consider some of the items inherent to the planning of a CL activity, including student grouping, activity structure within your online class, and your students' experience level with CL activities.

IMPLEMENTATION AND SUMMATIVE EVALUATION

Once you have planned your activity, written your instructions, and developed assessment tools, you are ready to implement and evaluate the CL activity. Unlike a large ISD development project that undergoes testing and formative evaluations throughout the design

process, it is likely that your first chance to evaluate your activity will be just after its implementation. The summative evaluation stage is your chance to determine the degree to which your original instructional goals and learning objectives have been realized (Gustafson & Branch, 1997). In this stage, you should obtain student reaction to determine how much they enjoyed the CL activity being used. You should also evaluate student learning by comparing the results of the activity with your established learning objectives. The question to ask here is "Have the students met the objectives and learned from the CL activity?"

COLLABORATIVE LEARNING ACTIVITY REVISION

Well-designed CL activities are never fully complete, and revision is an ongoing process. As a general rule, activity revision should reflect the information gathered in the summative evaluation phase. Based on "student performance on each objective and student attitudes towards your instructional activities" (Gustafson & Branch, 1997, p. 43), you should make appropriate changes. As Figure 1 indicates, revisions to your CL activity can be made at various stages in the design model. For instance, after evaluating an activity, you might decide that although the students enjoyed the activity, your learning objec-
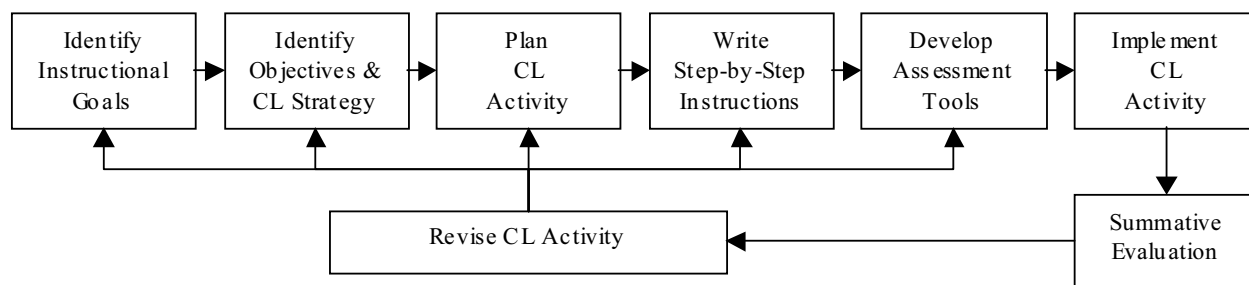

Figure 1. Collaborative Learning Activity Design Model (modified from Riser and Dick as cited in Gustafson and Branch, 1997) .

tives were not met. In this case, you might either make changes to the CL plan itself or consider using the activity in another portion of the class, taking advantage of the learning outcomes that your students did attain. Alternatively, you might find that although your students enjoyed the activity, you were not able to effectively measure their learning outcomes. In this case, you would want to go back and redesign your assessment tools.

Finally, the process of revising a CL activity can, in and of itself, become an effective CL activity. For example, you might try a CL activity early in an online course and then later ask your students to recommend ways to revise and improve on the original design. The advantages of this strategy are twofold: (a) you have effectively turned one CL activity into two; and (b) your students, with an entirely different perspective than yours, will likely discover problems and recommend improvements that you could not have imagined.

ANALYSIS

While the CL design model presented here is a derivative of the Reiser and Dick model, it is also similar to another classic ISD model, the Dick and Carey model (Gustafson & Branch, 1997). Figure 2 shows the CL design model and the Dick and Carey model side-by-side. The stages of both models are pattern-coded to show similarities between the two. Although, in most cases, the stages do not match up one-for-one, they are very similar. For example, in the CL model, the first stage, *identify instructional goals,* is very broad. This single stage, however, is equivalent to, though less comprehensive than, the first three stages in the Dick and Carey model, which include *identify instructional goals*, *conduct instructional analysis*, and *analyze learners*
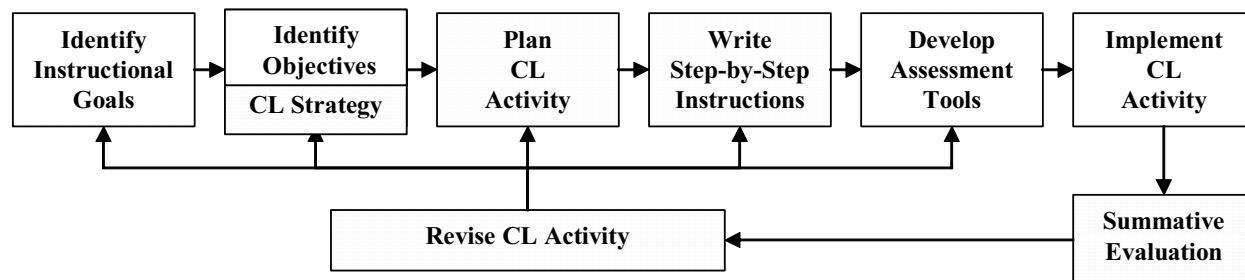
Pattern-coded CL Activity Design Model (modified from Reiser & Dick, as cited in Gustafson & Branch, 1997)
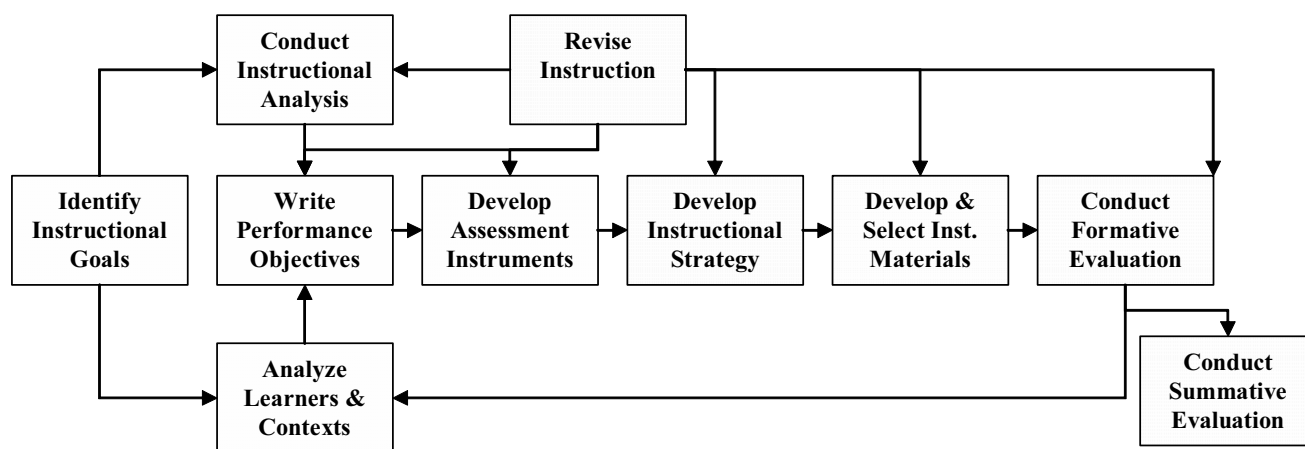
Pattern-coded Dick and Carey ISD Model (modified from Dick & Carey, as cited in Gustafson & Branch, 1997)

Figure 2. CL activity design model compared to Dick and Carey ISD model. Similar stages are displayed using the same pattern. Stages do not necessarily match up one-for-one (i.e., one stage in the CL activity model may correspond to three stages in the Dick and Carey model, or one stage in the Dick and Carey model may correspond to a portion of a stage in the CL activity model).

and contexts. Likewise, the CL model identifies only summative evaluation, while the Dick and Carey model specifies both formative and summative evaluations. Finally, while both models recognize revision as an integral part of the design and development process, the CL model places the revision stage after the activity has been implemented, while the Dick and Carey model emphasizes revision before, during, and after each step of the process.

Ultimately, the differences observed between these two models reflect a fundamental difference in their intended use. The CL model is designed primarily with a classroom orientation and is useful to professional teachers creating online distance learning activities. As such, this model is fairly simple in its conceptual framework, providing teachers with a general roadmap to follow (Gustafson & Branch, 1997). The Dick and Carey model, on the other hand, is designed primarily with a system orientation and is of interest to highly trained instructional designers developing entire courses. As such, this model assumes "that substantial resources will be made available to a team of highly trained developers" (Gustafson & Branch, 1997, p. 57), requiring much more front-end analysis, testing, and revision.

CONCLUSIONS

It is clear that students who participate in well developed CL activities realize significant learning benefits (Felder & Brent, 1996; Hiltz & Benbunan-Fich, 1997; Smith & MacGregor, 1992). The difficult part, however, is knowing how to start the development process and what to include in your activity. The purpose of this article is to provide you with a systematic roadmap for doing just that. By following this process, modified from a traditional design and development model, you can produce well-planned, interactive CL activities for your online courses that encourage teamwork and social negotiation, and challenge students to construct their own understanding of new information.

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"THE EDUCATIONAL VALUE OF WELL-DEVELOPED COLLABORATIVE LEARNING ACTIVITIES HAS BEEN DEMONSTRATED IN BOTH TRADITIONAL AND ONLINE LEARNING ENVIRONMENTS."

—ANTHONY R. ARTINO, JR.

We Need a Plan

An Instructional Design Approach for Distance Education Courses

Michael Simonson and Charles Schlosser

*O*n October 25, 1965, down-town St. Louis stopped in its tracks and thousands watched as the last piece of the mammoth Gateway Arch was put into place. The weight of the two sides required braces to prevent them from falling against each other. Fire hoses poured on water to keep the stainless steel cool, which kept the metal from expanding as the sun rose higher. Some horizontal adjustments were required, but when the last piece was put into place and the braces released, it fit perfectly, according to plan, and no one was surprised (Liggett, 1998).

Just like the Arch, distance education programs require a careful planning process that includes systematic design and implementation. There will be success if all the pieces of the plan receive the same attention as the most obvious. The base sections of the Gateway Arch required more engineering savvy and study than any other component. The last and most visible span that connected the two halves received the most attention from the thousands of onlookers, but success was directly related to how the original supports were positioned.

One key to effective distance education is correct instructional design, a systematic process that applies research-based principles to educational practice. If the design is effective, instruction will also be effective. This article presents a review of what we know about "best practices in distance education," and proposes an easy-to-apply approach to guide those who are designing classes.

DISTANCE TEACHING AND DISTANCE LEARNING

Distance education has two major components: distance teaching and distance learning. Distance teaching is the efforts of the educational institution to design, develop, and deliver instructional experiences to the distant student so that learning may occur. Designers of instruction concentrate on distance teaching, while students are responsible for learning.

## EFFECTIVE DISTANCE EDUCATION: A SYNOPSIS OF WHAT WE KNOW

Distance education has been practiced for more than 150 years, passing through three phases: first, correspondence study, with its use

Michael Simonson, Editor, *Distance Learning*, and Program Professor, Programs in Instructional Technology and Distance Education, Fischler School of Education, Nova Southeastern University, 1750 NE 167 St., North Miami Beach, FL 33162.
Telephone: (954) 262-8563.
E-mail: simsmich@nsu.nova.edu

Charles Schlosser, Managing Editor, *Distance Learning*, and Program Professor, Programs in Instructional Technology and Distance Education, Fischler School of Education, Nova Southeastern University, 1750 NE 167th St., North Miami Beach, FL 33162.
Telephone: (541) 301-4833.
E-mail: cschloss@nsu.nova.edu
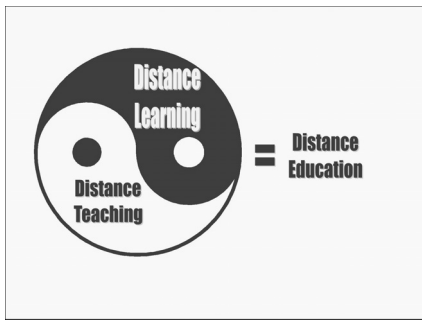
of print-based instructional and communication media; second, the rise of the distance teaching universities and the use of analog mass media; and third, the widespread integration of distance education elements into most forms of education, and characterized by the use of digital instructional and communication technologies. Peters (2002) has suggested that "the swift, unforeseen, unexpected and unbelievable achievements of information and communication technologies" will require "the design of new formats of learning and teaching and [will cause] powerful and far-reaching structural changes of the learning-teaching process" (p. 20). Peters' views are well-accepted, but there is also consensus that the most fruitful way of identifying elements of quality instruction may be to re-examine "first principles" of distance education and mediated instruction.

Perhaps the first of the "first principles" is the recognition that distance education is a system, and that the creation of successful courses—and the program of which they are a part—requires a "systems" approach. Hirumi (2000) identified a number of systems approaches, but noted a concept common to all: that "a system is a set of interrelated components that work together to achieve a common purpose" (p. 90). He described a system that involved the efforts of faculty, staff, administrators, and students, and consisted of eight key components: curriculum, instruc-tion, management and logistics, academic services, strategic alignment, professional development, research and development, and program evaluation.

Bates (in Foley, 2003) proposed 12 "golden rules" for the use of technology in education. These offer guidance in the broader areas of designing and developing distance education:

1. Good teaching matters. Quality design of learning activities is important for all delivery methods.
2. Each medium has its own aesthetic. Therefore professional design is important.
3. Education technologies are flexible. They have their own unique characteristics but successful teaching can be achieved with any technology.
4. There is no "super-technology." Each has its strengths and weaknesses; therefore they need to be combined (an integrated mix).
5. Make all four media available to teachers and learners. Print, audio, television, and computers.
6. Balance variety with economy. Using many technologies makes design more complex and expensive; therefore limit the range of technologies in a given circumstance.
7. Interaction is essential.
8. Student numbers are critical. The choice of a medium will depend greatly on the number of learners reached over the life of a course.
9. New technologies are not necessarily better than old ones.
10. Teachers need training to use technology effectively.
11. Teamwork is essential. No one person has all the skills to develop and deliver a distance-learning course; therefore, subject matter experts, instructional designers, and media specialists are essential on every team.
12. Technology is not the issue. How and what we want the learners to learn is the issue and technology is a tool (p. 833).

A number of these "rules" are overlapping. Three of them (1, 2, and 11) address course and program design. Any examination of "first principles" should first examine instructional design. While it has been noted that instructors, even those new to distance education, can learn to adapt courses and create materials for online delivery (Ko & Rossen, 2003), and the author-editor model has long been an element of correspondence study programs, "what is strikingly missing in these arrangements, usually, is an instructional designer and many good features of the instructional design approach" (Moore & Kearsley, 1996, p. 104). The team-based approach to distance education course development is generally regarded as more likely to result in high-quality materials, experiences and, hence, more satisfactory teaching and learning experiences (Hirumi, 2000).

Bates' triumvirate of subject matter expert, instructional designer, and media specialist is the standard core of the course design team, which may be expanded—one source (Hanna, Glowacki-Dudka, & Conceicao-Runlee, 2000) has suggested as many as eight members—based on the particular needs of the program and the media employed. No one approach to course design is ideal; as Moore and Kearsley (1996) noted, the course team approach results in "materials [that] are usually much more complete and effective. Furthermore, [it]

tends to emphasize the use of multiple media in a course" but is "very labor-intensive and therefore expensive, and it involves a lengthy development period" (p. 106). Of the two approaches, "the author-editor approach is the only one that makes economic sense if courses have very small enrollments or short lifetimes, while the course team approach is justified for courses with large enrollments and long-term use" (p. 107).

Foley (2003) has noted "there are general principles of good design that can be applied to all distance learning activities" (p. 831) but noted the following influences:

- the target audience of the activity;
- the content of subject matter to be delivered; and
- the outcomes or objectives desired (p. 831).

Other considerations having "profound effects on the design of the learning activities" (p. 831) include:

- the cost effectiveness of the system;
- the opportunity costs of alternative systems and methods;
- the availability of technology to the provider and to the learners;
- the geographical location of the learners; and
- the comfort level of the learners with any technology that is used (p. 831.)

Foley notes that these factors apply equally well when designing instruction for any given audience, from children to adults. When designing the World Bank's Global Development Learning Network, "results of more than 30 years of research on adult learning were applied to the distance learning programs" (p. 832). The criteria included:

1. They are based on clearly established learning needs and built around succinct statements of outcome.
2. They are based on a variety of teaching and learning strategies and methods that are activity based.
3. Effective distance learning materials are experiential … they address the learner's life experience.
4. Quality distance learning programs are participatory in that they emphasize the involvement of the learner in all facets of program development and delivery.
5. Successful distance learning programs are interactive and allow frequent opportunities for participants to engage in a dialogue with subject matter experts and other learners.
6. Learner support systems are an integral part of any successful distance learning program (p. 832).

The Indiana Partnership for Statewide Education (IPSE, 2000) proposed "Guiding Principles for Faculty in Distance Learning":

- Distance learning courses will be carefully planned to meet the needs of students within unique learning contexts and environments.
- Distance learning programs are most effective when they include careful planning and consistency among courses.
- It is important for faculty who are engaged in the delivery of distance learning courses to take advantage of appropriate professional developmental experiences.
- Distance learning courses will be periodically reviewed and evaluated to ensure quality, consistency with the curriculum,

currency, and advancement of the student learning outcomes.
- Faculty will work to ensure that incentives and rewards for distance learning course development and delivery are clearly defined and understood.
- An assessment plan is adapted or developed in order to achieve effectiveness, continuity, and sustainability of the assessment process. Course outcome assessment activities are integrated components of the assessment plan.
- Learning activities are organized around demonstrable learning outcomes embedded in course components including: course delivery mode, pedagogy, content, organization, and evaluation.
- Content developed for distance learning courses will comply with copyright law.
- Faculty members involved in content development will be aware of their institution's policies with regard to content ownership.
- The medium/media chosen to deliver courses and/or programs will be pedagogically effectual, accessible to students, receptive to different learning styles, and sensitive to the time and place limitations of the students.
- The institution provides appropriate support services to distance students that are equivalent to services provided for its on-campus students.
- The institution provides its students at a distance with accessible library and other learning resources appropriate to the courses or programs delivered via technology. It develops systems to support them in accessing and using these library and other learning resources effectively.
- It is important to provide the appropriate developmental

experiences for faculty who are engaged in the delivery of distance learning experiences.

- The institution implements policies and processes by which the instructional effectiveness of each distance learning course is evaluated periodically.
- Timely and reliable technical support is vital to the success of any distance learning program.
- It is recommended that a system of faculty incentives and rewards be developed cooperatively by the faculty and the administration, which encourages effort and recognizes achievement associated with the development and delivery of distance learning courses.
- The institution will communicate copyright and intellectual property policies to all faculty and staff working on distance learning course development and delivery.
- The institution complies with state policies and maintains regional accreditation standards in regard to distance learning programs. (www.old.ihets.org/learntech/facprinc.html)

Commonalities between these principles and those suggested by other authors and organizations may be readily perceived. For instance, careful planning and the need for teacher training are cited by Bates (in Foley, 2003), and the emphasis on the unique needs of students in a variety of contexts is mentioned by Foley (2003). The IPSE principles make an important contribution by highlighting need for consideration of copyright law and policies, intellectual property ownership, faculty incentives, and state policies and accreditation standards.

Because education (including distance education) is a system, each of its elements interacts with other elements, making the isola-

tion of elements difficult. Interaction (its type, quantity, quality, timing, etc.), for instance, cannot be separated from instructional philosophy, choice of media, and other factors.

Whatever media are selected to facilitate instructor-student and student-student interaction, it should be recognized that these forms of mediated discussion should not completely replace the face-to-face element in courses. As Peters (1998) noted, those who believe that new, digital media will "supply the interactivity and communication lacking in distance education … cherish a hope here that will prove to be serious self-delusion" (p. 155). Peters' comments on the topic (in the context of videoconferencing, a relatively rich "high bandwidth" form of communication), trenchant and incisive, are worth quoting at length:

> Communication mediated through technical media remains mediated communication and cannot replace an actual discussion, an actual argument, the discourse of a group gathered at a particular location. Mediated communication and actual communication stand in relationship to one another like a pencilled [sic] sketch and an oil painting of the same subject. What takes place in a discussion between two or more people can only be transmitted in part electronically. What is missing is the consciously perceived presence of the other persons, their aura, the feeling of being together that differs each time the participants meet. All this supplies genuineness and liveliness to the communication. A virtual university that does without face-to-face events by referring to the possibility of videoconferencing can only ever remain a surrogate university.
>
> A distance teaching university in a multimedia system, with its face-to-face study counselling [sic] and its tutors in the study

centres, is much more fortunate in this regard. Even the most extensively developed virtual university cannot do without these meetings. This is not an argument against video-conferencing as such. It is a new medium for learning and teaching in distance education, with particular advantages and disadvantages, whose effect has still to be developed. There is no doubt that to a certain extent [videoconferencing] will improve the structure of communication in distance education—but it cannot ever take the place of personal communication in distance education. (p. 155)

Peters' views on virtual communication have not been significantly modified with time. More recently (2002), he has noted that the losses inherent in mediated communications are serious:

> They reduce, surround, parcel out, spoil or destroy experiences gained at school or university. For this reason, it may be concluded, learning in virtual space will never be able to replace completely teaching in real spaces. (p. 104)

The effective use of a variety of media to facilitate communication, combined with critical quantities of well-structured face-to-face instruction and learning, have characterized many distance-delivered programs. They are two key elements of the Nova ITDE model of distance education, what has been called "the best of both worlds" (Schlosser & Burmeister, 1999).

As important as is the appropriate selection and use of technologies of instruction and communication, Moore (1998) has noted that these technologies are not critical elements in shaping students' satisfaction with their distance courses. Rather, satisfaction is determined by "the attention they

receive from the teachers and from the system they work in to meet their needs" (p. 4). Those needs, "what all distant learners want, and deserve" include:

- content that they feel is relevant to their needs;
- clear directions for what they should do at every stage of the course;
- as much control of the pace of learning as possible;
- a means of drawing attention to individual concerns;
- a way of testing their progress and getting feedback from their instructors; and
- materials that are useful, active, and interesting (p. 4).

At the same time, it should be noted that frustration with the use of complex, inadequate, malfunctioning equipment, as well as perceptions of emotional distance engendered by the use of distance education technologies, have negatively affected students' attitudes toward—and, in some cases, achievement in—distance education.

Bates' seventh "golden rule," that "interaction is essential," is well-accepted by the field, and is a central element in most definitions of distance education (see, for instance, Keegan, 1996; Schlosser & Simonson, 2003). Keegan (1996) noted that distance education must offer "the provision of two-way communication so that the student may benefit from or even initiate dialogue" (p. 44). Initial provisions for interaction were primarily for student-instructor interactions but, with the availability of expanded communication technologies in the 1990s, came an increasing emphasis on additional forms of interaction. Three forms of interaction are widely recognized by the field: student-content, student-instructor, and student-student. It is this third

form of communication, reflecting, in part, andragogical and constructivist perspectives, that has increased dramatically with the rise of online education.

Concurrent with the expansion of online education and the diffusion of new communication technologies, there arose the mistaken belief that, if interaction is important, "the more interaction there is in a distance education class, the better" (Simonson, 2000, p. 278). As Simonson (2000) has noted, early research in the field had "demonstrated clearly that the provision for interaction was critical" (p. 278), but later research indicated as clearly that "interaction is not a magic potion that miraculously improves distance learning" (p. 278). Indeed, "the forcing of interaction can be as strong a detriment to effective learning [as is] its absence" (p. 278).

When quantifying and qualifying student-teacher and student-student interaction, perceptions may be less than reliable. In a study comparing distance students' perceptions of interaction (as compared with observations of their interaction), Sorensen and Baylen (2000) noted that students accurately noted that: across-site interaction was very low, that within-site interaction was very high, that interaction changes with instructor location, that remote site students participate less, and that group activities increase interactions. However, students perceived that less interaction occurred over time (when, in fact, interaction increased), and that technology inhibits interaction (when, more accurately, it seems to create different patterns of interaction (p. 56).

Although Sorensen and Baylen examined interaction in the context of an interactive television course, their findings have implications for other distance education modalities. The researchers concluded that a sense of community formed

among students at the distant sites, but interaction increased when the instructor was present at a given distant site. Having instructors rotate among sites encouraged interaction. Interaction was hampered when students were unable to see or hear their distant classmates. Allowing constant displays of distant students would likely increase interaction. Maintaining students' attention in a distance-delivered course "appears to be a more difficult task than perhaps in the traditional class" (p. 56). Sorensen and Baylen noted that "varying activities and including hands-on exercises and small and large group discussions were instructional methods appreciated by the students" (p. 56). Students in the Sorensen and Baylen study expressed satisfaction with the "distance learning experience," but suggested that the course include "at least one opportunity for students to meet face-to-face" (p. 57).

Distance-teaching institutions (and their students) have a wide variety of instructional and communication media from which to choose. These two categories (instructional and communication) may be, to some extent, addressed separately, but they are often one and the same. Bates' fourth "golden rule," that there is no "super-technology," is well-accepted and understood by experienced instructional technologists and distance educators, but often less so by those new to the field (and many of today's practitioners fall into this latter category). For this reason, it is important to invoke the findings of Clark (1983), who noted, two decades ago, that "media do not influence learning under any conditions" (p. 446). Indeed, "The best current evidence is that media are mere vehicles that deliver instruction but do not influence student achievement any more than the truck that delivers our groceries

causes changes in our nutrition" (p. 446). Clark's conclusions have been bolstered by Russell (1999), whose well-known "No Significant Difference Phenomenon" articles have summarized the conclusions of decades of media-comparison studies.

If, as Clark (citing hundreds of studies and decades of research) maintains, the application of any particular medium will neither improve student achievement nor increase the speed of learning, what criteria might a distance-teaching institution apply in the selection of media for the delivery of instruction and the facilitation of communication? Cost (to both the institution as well as to the student) is an obvious criterion. Less obvious, perhaps, are the culture of the institution and expectations of students (or potential students).

At a very practical level, Ko and Rossen (2003) suggested that, prior to selecting media and instruction for online education, the institution's resources be assessed and the following questions asked:

- What's already in place (what, if any courses are being offered online; who is teaching them, etc.)?
- What kind of hardware and operating system does your institution support?
- What kind of network has your institution set up?
- What kind of computer support does your institution provide? (p. 19).

As Ko and Rossen noted, "the tools an institution uses and the support it offers very much influence the choices [the instructor will] need to make" (p. 18).

Other guidelines for selection of media for synchronous communication, in the context of one "best practice" in distance education—collaborative, problem-based stu-

dent work groups—have been offered by Foreman (2003). Foreman noted the usefulness of a wide variety of synchronous technologies: chat, telephone conference, Web conferencing and application sharing, voice-over-IP, virtual classrooms, and videoconferencing. Of the technologies at either end of the spectrum—chat and videoconferencing—"neither works especially well as a tool for collaborative teamwork" (para. 5) because chat is slow and awkward, and because videoconferencing is expensive, is frequently of low technical quality, and often fails to capture many of the visual cues so helpful for communication.

Telephone conferencing, however, "is highly effective for organizing small-team distance learning experiences" (para. 6), as it "provides immediacy, a high rate of information exchange, and complex multiperson interaction facilitated by a familiar audio cueing system." Foreman recognizes that telephone conferencing can be expensive, but counters that significant savings may be realized through inexpensive three-way calling options—which, "despite its name, four or more people can use … at once" (para. 7)—available through most telecom providers.

Commercially-provided Web conferencing, combining telephone and Web technologies, overcomes the limitations of voice-only technologies through the provision of "application sharing," but its telephone component is costly. Voice-over-IP is a promising technology but, at its current level, is "intrusive and clumsy" because of sometimes-lengthy lag time and overall low fidelity (para. 15).

Virtual classrooms focus on synchronous teacher-student and student-student interaction through application-sharing and voice-over-IP. Virtual classrooms have been available for several years, but only

recently has usability advanced to a level considered acceptable by many. Foreman suggests that this final category is most promising, as it can:

> create inexpensive cyberspaces where geo-distributed students can perform their learning work through the preferred medium for intense communication—talk. Their talk will focus on shared screen objects…that facilitate the dialogue…. Under the best circumstances, the students will divide the work, perform it separately, and then gather online to share their findings and integrate them into a deliverable product that can be assessed by the instructor. This is the decentered classroom taken to a logical extreme by an emerging technology. (para. 21)

Adams and Freeman (2003) have noted the benefits of the virtual classroom, noting that the interactions within them "in addition to allowing for the exchange of information, provide participants with a shared feeling of presence or immediacy that reinforces their membership in the community."

In the end, all of the above criteria are considered and, frequently, a pragmatic approach is adopted. As Bates recommends in his fourth "golden rule," "each [medium] has its strengths and weaknesses, therefore they need to be combined (an integrated mix)" (Foley, 2003, p. 843).

The literature abounds with guidelines for distance education and identified "best practices" of distance education. Sometimes these are based on careful research but are, in most cases, the products of practitioners relating practices that have proven successful for that author. Still, some common threads have emerged.

Graham, Cagiltay, Lim, Craner, and Duffy (2001) have offered seven lessons for online instruction:

1. Instructors should provide clear guidelines for interaction with students.
2. Well-designed discussion assignments facilitate meaningful cooperation among students.
3. Students should present course projects.
4. Instructors need to provide two types of feedback: information feedback and acknowledgment feedback.
5. Online courses need deadlines.
6. Challenging tasks, sample cases, and praise for quality work communicate high expectations.
7. Allowing students to choose project topics incorporates diverse views into online courses. (http://ts.mivu.org/default.asp?show+article&id=839)

In his eighth "golden rule," Bates notes that "student numbers are critical." While this observation is made in the context of cost and media selection, student numbers are, indeed, critical in at least two other respects: class and working- (or discussion-) group size. Distance education has been embraced, in some quarters, as an opportunity to reduce costs by increasing class sizes. The literature clearly indicates that there are practical limits beyond which the quality of instruction and learning are compromised. As Hanna et al. (2000) noted, "demand for interaction defines the size of face-to-face classrooms and the nature of the interactions within those classrooms; the demand for interaction has a similar effect upon online classrooms" (p. 26). Palloff and Pratt (2003) have suggested that experienced online educators can "handle" 20 to 25 students in an online course, while "instructors who are new to the medium, or instructors teaching a

course for the first time, should really teach no more than fifteen students" (p. 118). Chat sessions should be smaller, with perhaps 10 to 12 students (Palloff & Pratt, 2003), and work/discussion groups might have four or five members (Foreman, 2003; Hanna et al., 2000).

On a larger scale, institutions of higher education should understand that distance education is not the "cash cow" that some have mistakenly suggested (Berg, 2001). Indeed, the development and support of distance-delivered courses and programs is normally more expensive than for similar traditional courses and programs. When exceptions are occasionally noted, it is usually found that a difference in scale could explain the savings, as in the University of California-Davis study that found that preparing and offering a large (430 students) general education course at a distance was less than the cost of the same course delivered traditionally (Sloan Consortium, 2002). A second exception is the instance of the very large distance-teaching universities, such as the Open University of the United Kingdom, where large enrollments and a long "product cycle" reduce the unit cost per student to about half that common among traditional graduate programs (Moore & Kearsley, 1996).

Care should be taken when schools search the field for suitable models. As Garon (2002) has noted "academic attempts at providing universities online have been marketing failures and academic distractions. New York University, Temple University, and other famous universities have closed their virtual doors" and "highly touted start-ups such as Columbia University's Fathom.com and Western Governors University … [have] dramatically downsized the attempts to provide online degrees" (para. 2). Garon cites two successful for-profit institutions—the Univer-

sity of Phoenix and DeVry University, while noting that their success may be because, given their model for instruction, they "are much closer to large, national community colleges than traditional four-year colleges, but the model serves their community of adult learners well" (para. 6). Schools, then, should clearly identify the type of students they wish to attract, the needs of those students, and the type of university they aspire to be.

Distance education is a broad field with a long history. It is important to remember that, the views of some authors notwithstanding, there is no one "right" way to conduct distance education. At the same time, it would be foolish to ignore the insights and recommendations of longtime practitioners of distance education, as well as those whose field is the study of distance education. Distance education has experienced a marked expansion—and, to a certain extent, reinvention—in the past few years (coinciding with the rise of the Web and entrepreneurial forces in education). However, it should be borne in mind that online education is not the sum of distance education, that the field existed long before the Web, and that enduring principles of education did not become obsolete with the development of new, electronic technologies.

DISTANCE DELIVERED INSTRUCTION: THE U-M-T APPROACH

This section includes recommendations that are intended to provide a way to organize a course. These recommendations are guiding principles to help make courses with equal numbers of semester credits equivalent in terms of comprehensiveness of content coverage, even if these courses are offered in different programs, cover different top-

ics, and are delivered using different media.

ORGANIZATIONAL GUIDELINES

In traditional university courses, the 50-minute class session is the building block for courses. Usually, 15 classes are offered for each semester credit. This is the Carnegie unit, which usually means that for each semester credit, a traditional course must have 15 50-minute class sessions, for a total of 750 minutes of face-to-face instruction.

Distance-delivered courses do not normally have class sessions, as such. It is proposed that the designer of distance instruction use the *topic* as the fundamental building block for a course. Topics are then organized into *modules* that are further organized into *units* that are roughly equivalent to a semester credit.

The designer can organize a course like this:

- each semester credit = 1 unit,
- each unit = 3–5 modules,
- each module = 3–5 topics, and
- each topic = 1 learning outcome.

When applied, a typical 3-credit course might have 3 units, 12-15 modules, 48-60 topics, and 48-60 learning outcomes.

Working definitions of unit, module, and topic are:

Unit. A unit is a significant body of knowledge that represents a major subdivision of a course's content. Often, one unit of a course would represent 4 or 5 weeks of instruction, and would be equivalent to a semester credit. For example, in a 3-credit educational statistics course a unit might be the study of descriptive statistics.

Module. A module is a major, distinct, and discreet component of a unit. Generally, a unit such as descriptive statistics might be divided into 3–5 major components, such as statistical assumptions, measures of central tendency, measures of variation, and the normal curve. Modules generally are the basis for several class sessions and are covered in about a week of instruction and study.

Topic. A topic is an important supporting idea that explains, clarifies, or supports a module. A topic would be a lesson or a presentation. Three topics in a module on central tendency might be median, mode, and mean.

These three terms can be used in a variety of ways. Of importance is the idea that topics form modules and modules form units, and units are the main subdivisions of courses.

ASSESSMENT GUIDELINES

Assessment is defined as the determination and measurement of learning. Ultimately, assessment is used for grading. Assessment is directly related to learning outcomes. Normally, there is at least one learning outcome for each course topic.

A typical 3-credit course might have the following assessment strategy:

- 1 examination,
- 1 10- page paper,
- 1 project,
- 3 quizzes,
- 3 small assignments (short paper, article review, activity report), and
- graded threaded discussions, e-mails, and chats

LEARNING OUTCOME

A learning outcome is observable and measurable. Learning outcomes are a consequence of teaching and learning—of instruction and study. Often, learning outcomes are written with three components: conditions under which learning is facilitated (instruction), observable and measurable actions or products, and a minimum standard of expectations. Usually, there is at least one learning outcome for each course topic. For example, a learning outcome for a topic in a statistics course dealing with *median* might be:

> After studying the text, pages 51–53, reviewing the PowerPoint with audio presentation on measures of central tendency, and participating in synchronous chats, the student will analyze two sets of test data to identify the median for each.

CONTENT GUIDELINES

Traditionally, instructors have offered content by making presentations during face-to-face instruction. Additionally, readings in textbooks and handouts are commonly required of students in courses.

In distance teaching situations, readings in texts, handouts, and information on the Internet are often used to deliver content. For high-quality courses, there often is an emphasis on the use of various forms of visual media to offer instructional content. Videos, visual presentations with accompanying audio, and other graphical representations of important topics are important in a well-designed course. A variety of delivery systems for content can be considered, including the use of compact disks, electronic files posted to Web sites, and streaming.

As described above, content is organized into *topics*. Topics are combined into *modules* of similar topics and modules are used to form *units*.

Modules might have 3-5 topics presented in the following ways:

- readings in the text or other written materials;

- videos supplied on CD, DVD, or streamed;
- audio recordings of speeches or presentations supplied on a CD, as an e-mail attachment, or streamed;
- recorded presentations using PowerPoint with prerecorded audio; and
- synchronous chats with content experts.

INSTRUCTION/TEACHING GUIDELINES

The pace of instruction for learners is a critical concern for the distance educator. Because many distance education students are employed full-time, it is important to offer instruction in a way that complements their other responsibilities. These guidelines relate to the pace of instruction and the need for continuing interaction between instructors and students:

- 1 module per week;
- Instructor e-mail to students each week;
- 1 synchronous chat per week;
- 2-3 threaded discussion questions per topic, or 6-10 questions per week;
- Instructor comments on discussions as part of threaded discussion; and
- Progress reports (grades) submitted to students for each module

These course design guidelines are based on the literature of distance education and are derived from the analysis, review, and discussion of quality courses delivered at a distance.

A FINAL WORD

The simplicity of the Carnegie Unit has made it the standard for course design, primarily because it was easy to apply. It is easy to count class sessions in order to determine if a course "measures up." Distance education, with few if any face-to-face sessions, does not have such a widely accepted standard. The unit/module/topic approach is being used in courses, and seems to be quickly and accurately applied, while establishing a standard of quality.

The successful placement of the final section of the St. Louis Gateway Arch depended on planning and design that was completed years earlier. Distance learning is facilitated by distance teaching, if distance teaching is well planned and designed, often months before the course is taught.

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"DISTANCE EDUCATION HAS TWO MAJOR COMPONENTS: DISTANCE TEACHING AND DISTANCE LEARNING."

"IT IS PROPOSED THAT THE DESIGNER OF DISTANCE INSTRUCTION USE THE TOPIC AS THE FUNDAMENTAL BUILDING BLOCK FOR A COURSE. TOPICS ARE THEN ORGANIZED INTO MODULES THAT ARE FURTHER ORGANIZED INTO UNITS THAT ARE ROUGHLY EQUIVALENT TO A SEMESTER CREDIT."

"THE DESIGNER CAN ORGANIZE A COURSE LIKE THIS:

- EACH SEMESTER CREDIT = 1 UNIT
- EACH UNIT = 3-5 MODULES
- EACH MODULE = 3-5 TOPICS
- EACH TOPIC HAS ONE LEARNING OUTCOME"

—MICHAEL SIMONSON AND CHARLES SCHLOSSER

What's Really Important?

Ryan Watkins

All of us know—either intrinsically or owing to some glossy 1990s motivational poster—that business initiatives are intended to accomplish an assortment of useful results for our organizations: direct revenue, required skills, cost savings, necessary certifications, increased productivity, or the like. Nevertheless, the daily tasks associated with designing, developing, and maintaining a distance education initiative that achieves these objectives, and many others, are typically the distractions or troublesome misad-

Ryan Watkins, Associate Professor, Educational Technology Leadership Program, George Washington University, 2134 G Street, NW, Washington, DC 20052. Telephone: (202) 994-1701. Web: www.ryanwatkins.com

ventures that occupy our attention; often delaying our insistence on measurable performance to another day.

While there is no doubt that the accomplishment of "small" results is essential for "big" success, when these daily tasks blur our ability to see the long-term objectives we often start to make near-sighted decisions that take us away from our intended goals and organizational contributions.

As a result, when our predisposition becomes a focus on the relatively less-critical (i.e., we "sweat the small stuff"), what becomes critical to our performance is how we distinguish between what is important and what is not so important. This ability to differentiate the two not only allows us to better balance our attention across competing demands, but also helps us regain control over our long-term professional and organizational goals.

Suboptimization and micromanagement are just two symptoms of our difficulties with knowing what is important and what is not. Both symptoms decrease the effectiveness of the overall organization and jeopardize our ability to achieve long-term success.

So how can we break some old habits? The first divergence we will want to take away a focus on

the trivial is to regularly differentiate between ends and means.

Ends are the results we accomplish. Ends can be anything from e-mail messages to dictated letters, comprehensive evaluation reports to completed e-learning courses. Although ends will not always leave a physical artifact, most often they end with tangible products of our efforts. As a result, the ends we create are typically the outcomes by which our success or failure is later judged.

Closely related to the ends we achieve are the means we use to realize those results. Means are thereby the processes, tools, and techniques we use in our efforts to accomplish and contribute ends. Means can be anything from a theoretical construct to a circular saw, a computer software application to a high-tech global positioning gadget.

Like ends, means can be related to physical objects such a cell phone, although often times we will use intangible means, like models and matrices, in our efforts to attain results.

By clearly delineating between ends and means, you can begin to sort through the daily activities of most any task, thereby punctuating the results you wish to accomplish and pruning your efforts that fixate on details while forgetting the bigger picture.

The differentiation of ends and means is in no way, however, intended to detract from the reality that you must attend to the daily operations of any successful e-learning project. After all, both god and the devil are found "in the details." But when we fixate on the daily tasks for too long we risk losing sight of the "big picture," which can lead to those debilitating occurrences of micromanagement and suboptimization.

The rather unassuming, yet compelling and valuable, distinction between ends and means can have a significant impact on how you go about determining what is really important in your daily tasks. When you are attentive to this differentiation you may find yourself spending less time describing how you "want things to be done," preferring a focus on the results you want to have accomplished—and how those results will contribute strategically to the organization. Or you may reconsider the use of traditional evaluation criteria (such as time on task, amount of effort, or "did you do what I told you to do" criteria), opting instead to develop clear standards for the products, outputs, and outcomes (i.e., the ends or results) that are to be delivered.

It is often useful to routinely jot down a list of the tasks currently consuming your attention, and then indicate for each if you are focused on the ends (i.e., results) with long-term benefits or just the means for short-term rewards. The long-term success of any e-learning initiative will be measured by the value of the ends that it accomplished and, as a result, you will want to focus a healthy portion of your time each week on accomplishing the ends that will define your success.

Face Value

Craig Ullman

Too many of us in distance learning (and I would put myself at the front of the line here) love to focus on the bells and whistles of our enabling technologies, rather than focus on the simpler and more difficult issues of cognitive psychology. I'll give you a for instance: what form of communication would you say has the most impact on the people communicating?

I think most of us would agree that a face-to-face discussion has the most impact on its participants. As pure information exchange, a

Craig Ullman, Partner, Networked Politics, 49 West 27th St., Suite 901, New York, NY 12401. Telephone: (212) 658-9929. E-mail: cullman@networkedpolitics.com

face-to-face is actually very inefficient: few people are well spoken, much less eloquent, and rarely does one take (or even have) the time to carefully organize one's thoughts before speaking. Typically, a verbal discussion is filled with elisions, redirections, repetitions, and just plain stalling ("that, you know … the thing of it is.…")

In that sense, a written communication would provide more information, more carefully presented. And yet, how often has something we have written been misconstrued or ignored? I'm sure we all know particular people who have habitually taken offense at e-mails, creatively reading in an intent of the message that was not actually there.

The piece we are missing is, of course, the emotion associated with the statement. If you believe that an emotion associated with a statement is merely a sidecar, an encumbrance that can only slow down your motorcycle of thought, then you are making the until very recently widely accepted mistake of Cartesian duality. Descartes believed that emotions and logic were separate, often opposed, entities. However, the cognitive research that has been done in the last couple of decades indicates quite the opposite: emotion is not only concomitant to everything

we think or say, it is a necessary, built-in process that we cannot— nor would even wish to—avoid.

Emotion's value is to give weight to facts and help us come to decisions more quickly. If, for instance, you hear someone say "A lion!" and did not receive or could not interpret the emotion intertwined with the fact, you might spend a considerable period of time deciding what the statement meant, any possible relationship of the statement to your own circumstances, and so on. While you stand there processing these issues, your leg could, of course, become a delightfully invigorating tartare for the lion.

So, the play of emotions between speakers is the missing piece that makes a face-to-face discussion so powerful. The emotive content is revealed (and sometimes betrayed) by the voice, facial expressions, and body language of the other speaker: An arched eyebrow, a pregnant pause, a rising tone, all serve to expand the meaning of what the speaker says—and how the speaker is reacting to what you say. Voice, facial expression, and body language create a powerful feedback loop for any communication.

Every step we take away from face-to-face communication narrows the amount of information

and feedback we receive from the speaker, making miscommunication or weak communication that much more likely.

So what implication does the importance of emotion have in distance learning? In most instances, we cannot effectively or efficiently use technology to create a face-to-face discussion between teacher and student, or between students. However, we can use technology to bottle and distribute some of that emotion through the use of video. Even though the teacher or student might be seen in a box in a corner of the screen, if the audio and video of the person can be clearly understood, than the emotive content of the speaker can be understood as well.

It is not an ideal solution, and thousands of hours of online learning have been built consciously avoiding or minimizing the use of the human face. It is now time we embrace the importance of emotion in distance learning and take greater advantage of it.

WHAT IS A DISTANCE LEARNING LEADER?

A LEADER IS A VISIONARY CAPABLE OF ACTION WHO GUIDES AN ORGANIZATION'S FUTURE, ITS VISION, MISSION, GOALS, AND OBJECTIVES. THE LEADER GUIDES THE ORGANIZATION AND ITS PEOPLE WHO HAVE FAITH IN THE LEADER, AND HAVE A CLEAR UNDERSTANDING AND ACCEPTANCE OF THE ORGANIZATION'S WORTHWHILE AND SHARED VISION AND GOALS. A DISTANCE LEARNING LEADER HAS COMPETENCE IN KNOWING, DESIGNING, MANAGING, LEADING AND VISIONING DISTANCE EDUCATION.

—SIMONSON (2004)

Rubrics

Score One for the Instructor and One for the Student

David Graf

I n recent years, the use of scoring rubrics has become more and more commonplace across all levels of secondary and postsecondary education. And for good reason. From my standpoint, rubrics are—or should be—an important tool in the online instructor's arsenal of assessment tools. If you are not using rubrics

David Graf, Fischler School of Education and Human Services, Nova Southeastern University, 1750 N. E. 167th St., North Miami Beach, FL, 33162 Telephone: (954) 262-8786. E-mail: grafd@nsu.nova.edu

in conjunction with student learning assignments, I encourage you to begin doing so.

WHY USE RUBRICS?

There are two simple reasons why you should use rubrics in your online course. The most important reason is that rubrics serve to inform students how their assignments and other work will be graded. As a scoring guide, a well-constructed rubric delineates a consistent set of precisely defined criterion statements that can be used to assess student work. The process of creating a scoring rubric causes you, the instructor, to think deeply about each element of an assignment. The idea is to arrive at criterion statements that define varying levels of excellence about those elements. Sharing the final rubric with students provides them with a clear understanding of what constitutes excellence in the preparation of their assignments, thus allowing them to self-assess their work before submitting it to you for evaluation.

Another reason for using rubrics is to make your job of

assessing student work that much easier. Creating a quality rubric requires a great deal of up-front thinking but, in the long run, the process of grading student work is greatly reduced. The use of rubrics also makes the grading of student work more consistent. While there is always a level of subjectivity in assessing student work, rubrics help reduce the tendency to compare one student's work against another.

In their watershed work, Herman, Aschbacher, and Winter (1992) indicated that a carefully constructed scoring rubric will:

- Help teachers define excellence and plan instruction that will help students achieve it;
- Communicate to students what constitutes excellence and how to evaluate their own work;
- Communicate goals and results to parents and others;
- Help teachers or other raters be accurate, unbiased, and consistent in scoring assignments and projects; and
- Document procedures used in making important judgments about student work.

RUBRIC ELEMENTS

There is no standardized way of creating a rubric, nor is there a standardized way a rubric should look. There are, however, certain elements that should be included in every scoring rubric. Herman et al. (1992) suggested the following elements of a scoring rubric:

- One or more traits or dimensions that serve as the basis for judging the student response.
- Definitions and examples to clarify the meaning of each trait or dimension.
- A scale of values on which to rate each dimension.
- Standards of excellence for specified performance levels accom-

panied by models or examples of each level.

Table 1 shows one way to begin structuring a rubric for assessing the dimension of student participation in small group chats (note that a complete rubric would address additional dimensions). Upon reading this portion of the rubric students would understand what is expected of them in order to achieve high marks for their work in small groups. Using rubrics like this—and chat logs—instructors can shorten the time required to assess student participation and remove much of the subjectivity so often associated with assessing group work in online courses.

There are, of course, many things that need to be considered when constructing rubrics. For example, in Table 1, each of the items might be weighted differently, thereby placing more emphasis on desired performance indicators. Also, the headings that serve to denote a certain level of "competency" may also be changed to reflect varying levels of acceptable work.

My purpose in preparing this column was to convince you to consider adding rubrics to your assessment arsenal. I hope I have achieved that goal. If I have, then the next step for you is to visit any of the Websites listed below to read more about how to construct and integrate rubrics into your courses. Using rubrics in your courses will

Table 1

Beginner	Novice	Proficient	Advanced
• Little or no advance preparation for scheduled chats (1)	• Moderately prepared in advance (2)	• Well prepared in advance of scheduled chats (3)	• All of the markers of proficient participation, plus
• Allows others to set and pursue group agenda (1)	• Takes some part in setting group goals and agendas (2)	• Takes an active role in setting group goals and agendas (3)	• Draws out ideas or concerns of others, especially those who have contributed little (4)
• Participates passively and contributes little or nothing during chats (1)	• Participates in chats, letting other group members provide the direction (2)	• Actively participates in chat discussions and asks questions (3)	• Revisits issues or ideas that need more attention (4)
• Merely responds to questions and rarely initiates dialogue (1)	• Occasionally introduces information or asks questions during a chat (2)	• Listens actively and shows understanding by paraphrasing or by acknowledging and building on others' ideas (3)	• Helps the group stay on track (4)
• Attendance in scheduled chats is haphazard and inconsistent, often without prior notification (1)	• If likely to be absent or late, informs others ahead of time and arranges to cover assigned responsibilities (2)	• Volunteers willingly and carries own share of the group's responsibilities (3)	• Summarizes group decisions and action assignments (4)

Adapted from "Levels of participation." Bowling Green State University. http://www.bgsu.edu/offices/provost/Assessment/Particip.htm

ultimately score points with your students (pun intended).

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Creating Rubrics: Tools You Can Use. Education World. http://www.education-world.com/a_curr/curr248.shtml

Kathy Schrock's Guide for Educators. http://school.discovery.com/schrockguide/assess.html

PowerPoint Rubric. Joan Vandervelde, University of Wisconsin-Stout. http://www.uwstout.edu/soe/profdev/pptrubric.html

Rubrics and Online Surveys. Marsha Burmeister, Nova Southeastern University. http://www.nova.edu/~burmeist/rubrics.html

"'TIS DISTANCE LENDS ENCHANTMENT TO THE VIEW."

—THOMAS CAMPBELL

"EXPERIENCE NEEDS DISTANCE AND WHAT YOU WRITE OF AT A DISTANCE TELLS NOT SO MUCH WHAT YOU WERE LIKE AS WHAT YOU HAVE DISCOVERED SINCE."

—DAVID WADE

What's Ahead for Learning Management Systems in Higher Education?

Michael Anderson

When a university asks its current learning management system (LMS) vendor what's the difference between their 2002 and 2003 LMS products, the vendor calmly states, "about $50,000." This quip underscores the recent transition of learning management systems

Michael Anderson, Course Development & Technology Manager, UT TeleCampus, The University of Texas System—Online, The Colorado Building, 702 Colorado Street, Suite 4.100, Austin, TX 78701. Telephone: (512) 499-4262. E-mail: manderson@utsystem.edu

from departmental postscript to institutional necessity. Understanding how vendors have transformed their products into critical infrastructure helps forecast where LMSs may evolve. The systems must maintain the features that led to widespread adoption, but expand to provide new rationales for continued reliance.

It is useful to briefly discuss the evolution of LMSs and to understand the pertinent acronyms that illustrate the pattern of LMS development.

A course or content management system (CMS/LCMS) is a system for managing course content. Typified by Blackboard 5 or WebCT Campus, a CMS is the content repository which stores, manages, and maintains learning content. The CMS separates the content from its delivery so that content can be authored once and reused in many courses. In higher education, the CMS was born from local solutions to Web-enhanced course delivery.

A learning management system (LMS) is a system for managing learner progress through courses.

Exemplified by Blackboard 6 or WebCT Vista, an LMS interacts with the student to manage access to learning content and support services. The LMS manages the learning process and is learner-focused, rather than content-focused. In higher education, the LMS was born from local student information systems.

Today's learning management systems started as local solutions and evolved into proprietary vendor products. According to Acadient (2004), the current CMS/LMS market is dominated by three companies: Blackboard (38%), WebCT (32%), eCollege (11%). Other companies account for the remaining 19% of the market. The "other" category includes home-grown systems (such as the University of Phoenix's rEsource and the University of Maryland University College's WebTYCHO), pioneers (such as VCampus and FirstClass), newcomers (such as IntraLearn and Angel), and systems with a strong corporate training presence (such as Saba and Docent). Three years ago, the market was extremely fragmented, but as fur-

ther consolidation occurs, only a handful of products will survive.

WHERE DO WE WANT TO GO?

The products that survive will continue to improve learning for both students and faculty. From a student perspective, the CMS concentrates on individual needs: greatly expanded syllabi detail learning expectations; online testing and gradebooks provide immediate feedback. The student/consumer has come to expect the same universal access, efficient responsiveness, and accommodation he or she is receiving elsewhere in an economy shifting from manufacturing to information services.

From a faculty perspective, the LMS solves administrative headaches: over the past 10 years, less than 5% of higher education technology budgets were devoted to the administrative aspects of instruction or to instruction itself (Byrne, n.d.). The LMS offers automatic registration, tracking, and a comprehensive record of communication.

Instructional management systems in the future will continue to solve these service problems for students and faculty but must also evolve or be replaced by custom solutions. Already, several free LMSs have emerged from both the North American and European communities. While proprietary systems offer stability, and although Gartner Group projects that 80% of institutions implementing an LMS in the next year will use a proprietary system, Scalise (2004) notes, "A proprietary LMS is like a municipal bus. It may get you to where you're going but you can't change the route or the engine."

HOW WILL WE GET THERE?

The following technology trends should be integrated into future systems to provide custom routes:

- LMSs should be based on XML to allow the interchange of data among disparate but industry-specific systems using a common vocabulary.
- LMSs should center on learning objects to allow recognition and recombination at different levels, instead of being stuck in the course mentality.
- LMSs should disaggregate rather than integrate tools. Because few institutions utilize all the capabilities (Biesinger, 2002) of six-figure monolithic systems, higher education requires a menu approach. This requirement is reflected in the emergence of the Open Knowledge Initiative, a collaborative focused on the development of modular tools.
- LMSs should be customizable to the unique pedagogical needs of different disciplines with integration implemented via Web services.
- LMSs should focus on collaboration (Trondsen, 2003) and incorporate communication tools ranging from instant messaging to blogs. New collaboration technologies enable the transfer of tacit knowledge.

HOW WILL WE KNOW WHEN WE'VE ARRIVED?

When instruction returns to the "why" while the CMS handles the "what," when enrolling in a course is more straightforward than buying a hamburger, when distance discussion is easier than a phone call, and when the technology is as transparent as the classroom window, the LMS voyage will be complete, and the learning journey can begin. And, as all educators know, it always was and always should be about the learning, not the toys.

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The Accreditation of Distance Learning

John G. Flores

D istance learning, while a force in education for more than 150 years, has, in the last dozen or so years, taken on a much greater role. This prominence stems from the union of two powerful forces. First, fiscal constraints compel both academia and business to control costs and improve return on investment. Second, technology—with the ubiquitous nature of desktop computing, wide area networks, and inexpen-

John G. Flores, Executive Director, USDLA, 8 Winter Street, Suite 508, Boston, MA 02108. Telephone: 800 275-5162
E-mail: jflores@usdla.org

sive broadband—provides an effective means of delivering educational value.

Those of us in the distance learning industry applaud these developments. At the same time, we realize that, with greater opportunity, usually comes increased responsibility.

Diploma mills have been around for decades. They are not a function of distance learning; indeed, rarely does *any* learning take place in that greedy world. But because these operators tend to exploit the online environment, they are a problem to us. They could breed "guilt by association" and erode public confidence in our product.

The thousands of schools that work hard to provide value and a first-rate educational experience face a host of challenges. Not only do they want to distance themselves from disreputable operators, they also are looking for ways to enhance their effectiveness. They seek higher-quality academics and a stronger operational base.

The Distance Learning Accreditation Board (DLAB) was created by the United States Distance Learning Association (USDLA) to help address these pressing needs.

USDLA, founded in 1987, was the first nonprofit distance learning

association in the United States to support research, development, and praxis across the entire spectrum of distance education and training. Our consistent focus has been on quality approaches and professional growth. It is fitting, then, that in 2003 USDLA began the quality improvement organization now known as DLAB.

DLAB complements USDLA's existing program to credential individual distance learning practitioners. DLAB, in essence, extends credentialing to the institutional level. At the same time, DLAB fosters professionalism in a climate of continuous improvement.

DETERMINING ELIGIBILITY

DLAB promotes excellence in distance learning on a global basis and, in doing so, serves a broad cross-section of schools. There are two overriding elements that distinguish these schools. First, they are engaged in distance learning. Neither the format nor the scale of this distance learning operation is at issue, only the fact that learning takes place at a distance. The second factor is that the schools adhere to the *Principles of Best Practice for*

Distance Learning developed by DLAB in conjunction with USDLA.

Because accreditation is an intense process, DLAB focuses its efforts on those institutions with a strong likelihood of success

The DLAB staff researches each application and forwards it to the Accreditation Advisory Committee for their review. With the concurrence of the committee, the institution may then apply for candidate status. Eligibility is open to that institution for a 12-month period.

DLAB is somewhat unusual in that we do not charge for an eligibility determination. We believe that an open process is in the best interests of both parties.

If the initial eligibility is withheld, the institution may seek clarification from the staff concerning the action. There is no formal appeals process for eligibility.

There are both objective and subjective criteria for DLAB accreditation. Logically, the objective elements are more prominent in the preliminary stages. The subjective components come to the fore during self-study and review.

OBJECTIVE REQUIREMENTS

DLAB credentials educational providers in three categories: K-12 schools, colleges/universities, and corporate/professional development. DLAB accepts applicants on a global basis; the key element is not *where* on the globe a particular school or its student body is located. It is essential, though, that for some portion of the student body, learning process takes place at a distance. What delivery mechanism the institution uses for its distance learning is immaterial.

Whatever the composition of the institution, it must have the following characteristics:

- Academics. The institution awards appropriate credit to students for academic work on their respective level. The school employs a sufficient number of qualified faculty who have direct and regular contact with the students.

- Authorization. The institution must have appropriate authority for awarding credit or degrees. Its distance learning must be consistent with its operating authority and mission.

- Governance. The institution (though not necessarily the distance learning unit) must have a chief executive whose primary responsibility is managing the institution. The institution is accountable to an oversight board.

- Services. Distance learning students must be provided with services—such as, counseling, help desk, placement—and learning resources (e.g., library resources) commensurate with their needs and level.

- Stability. The institution and its distance learning unit must have sufficient financial revenue to support its mission and ongoing operations.

During the eligibility review the institution will likely be asked to affirm many of these areas. This reflects the importance of these attributes to a sound operation and to the successful accomplishment of the candidacy process.

SUBJECTIVE CRITERIA

Subjective criteria primarily fall in the realm of adherence to the 10 *Principles of Best Practice for Distance Learning*, which are available at www.USDLA.org.

The institution's adherence to the *Principles* is the primary focal point of the self-study and on-site review. Certainly at the eligibility stage, institutions should be familiar with the *Principles* and how the *Principles* relate to their program.

STATUS

Once eligibility is established, an institution has 12 months to apply for candidacy. Eligibility, as such, does not confer a relationship between the institution and DLAB. Thus, an institution may not publicly disclose or imply a relationship with DLAB prior to official acceptance by DLAB into candidacy for accreditation. At that point, the institution will be given specific guidelines for describing its status with DLAB.

BENEFITS OF DLAB ACCREDITATION

There are several direct, immediate benefits that stem from DLAB accreditation:

- Use of the distinctive DLAB "approved" emblem.
- Participation in the DLAB referral service for educational consumers.
- News releases from DLAB heralding the institution's achievement, sent to both local and educational media.
- Announcement on the USDLA and DLAB Websites.
- Complimentary admission or reduced rates to USDLA professional meetings and tradeshows.
- A special-interest forum within USDLA, designed for DLAB-accredited institutions.
- An ongoing framework for continuous improvement and professional development within the institution.

USDLA welcomes your participation and support as the new DLAB service is launched. For additional information please contact: dlabinfo@usdla.org.

Premier Conferences Rise to the Top

Marci Powell

"Close your eyes. You're getting sleepy. You're eyelids are getting very heavy." What do a hypnotist, the USDLA President, and Julie Young, Executive Director of Florida Virtual Schools, have in common? They were all keynote speakers at the recent TxDLA Annual Conference held in Galveston the last week of March. The Texas Distance Learning Association is one of the largest state

Marci Powell, Education Advocate, SBC, 4119 Broadway, Room 460, San Antionio, Texas 78209. Telephone: (210) 633-5602. E-mail: marci.powell@sbc.com

chapters under the United States Distance Learning Association.

This year's theme at TxDLA's conference was "Surfing the Big Wave." Those involved in distance learning know that the ride can sometimes be rough, the waters are often deep, and it is crucial to have the necessary knowledge and skills to navigate through this constantly evolving field. One of the premier distance learning conferences in the country, TxDLA, provided opportunity to gain knowledge and skills while capturing practitioners' attention with their healthy lineup of more than 100 breakout, showcase, roundtable, and how-to sessions.

Hypnotist Tom DeLuca made the opening session memorable. Taking attendees on a trip through the "Theatre of the Imagination," Tom wove together the light-hearted fun of a comedy show with a motivational message. Innovation can only come from the imagination, and Tom DeLuca's hypnosis performance demonstrated just how innovative people can be when they are relaxed and free of pressure. Tom was able to get volunteers to break through mental barriers by allowing them to use their own creativity to fuel the show.

USDLA President Darcy Hardy, also Assistant Vice Chancellor for

Academic Affairs of the University of Texas System, and Director of the UT TeleCampus, delivered an "Introduction of Five Pillars Concept" while serving as the moderator for a panel sponsored by the Alfred P. Sloan Foundation. Panelists included Tana Bishop of University of Maryland University College; Ron Brey, Associate VP for Instructional Resources and Technology at Austin Community College; and Karen Swan, Research Center for Educational Technology at Kent State University. The keynote session addressed how to meet quality standards for learning and cost effectiveness and examined what reasonable benchmarks and milestones define accomplishments. Using the Sloan Consortium's Five Pillars of Quality Online Education as a frame for panel and audience discussion, the session put primary emphasis on learning, faculty satisfaction, and student satisfaction.

Julie Young served as the closing keynoter, speaking on "Redefining Education: Riding the Wave of the Future." As Young noted, "In our current system, time is the constant and achievement the variable. We have it backwards. Achievement should be the constant and time the variable." Citing the 1992 SCANS

Report, Young examined the need for the United States to explore new models of learning. "Given the societal changes in our 21st-century work and family environments, coupled with the changing expectations of today's students, we must stand ready to redesign education as we know it. The new generation of learners are living in the digital age, yet existing in an educational institution designed around an agricultural timetable in an industrial setting," she said. Young emphasized that educational models that design and organize teaching and learning around the needs of the student, not the institution, will be the wave of the future.

While the keynote sessions were truly outstanding, the other jam-packed sessions and activities were invigorating, intense, and provided highly beneficial information. Sessions not only addressed distance learning issues for K-12, higher education, healthcare, government, and corporate applications, but also focused on technical and administrative issues. Attendees left the conference with valuable resources and peer networking to tap into throughout the year.

If you didn't have the privilege of having your imagination free to release innovation at the hypnotic TxDLA conference, don't worry. Numerous conferences are on the horizon over the next few months.

Depending on what type of distance learning you are embracing, such as online, videoconferencing, satellite, or blended learning, several conferences rise to the top as premier opportunities for gaining valuable information and resources.

Among the top-quality conferences, both nationally and internationally, are the International Forum for Women in E-Learning Conference (http://www.usdla.org/html/events/ifwe/), the Keynote conference (www.K12videoconf.org), and the Online Learning Conference & Expo. Further information about these and other conferences may be found at the USDLA Website: http://www.usdla.org/html/events/conferences.htm.
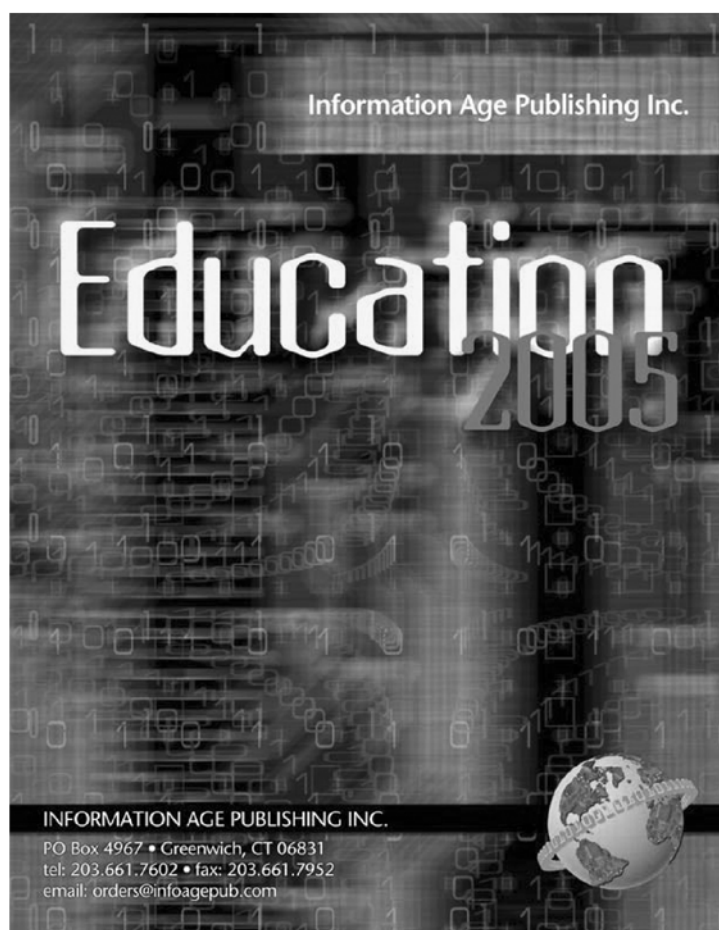
It's Not the Technology

Darcy W. Hardy

What is it about technology that causes distance educators to make poor decisions? Do we get so excited about the latest and greatest application that we forget about design and pedagogy? Or, are we still on that tired mission to find the "killer app" in the form of technology for distance learning—the one that will make learning *better*?

How we select appropriate technology to deliver education and training has always intrigued me. As I thought about my column for this issue, I thought I would revisit an article I cowrote in 1994 titled,

Darcy W. Hardy, University of Texas System, 210 W. Sixth St. Ste. 2.100, Austin, TX 78701. Telephone: (512) 499-4204.
E-mail: dhardy@utsystem.edu

"Motion vs. Non-Motion Curricula in Distance Education: Technology Selection Reconsidered." That article addressed the mistake of selecting a particular technology to deliver instruction simply for the sake of the technology, as opposed to selecting appropriate technology based on the content being delivered.

I'll admit I hadn't read this article since it was accepted for publication in the *Canadian Journal of Educational Communication* (volume 24, number 2), yet I have always felt it was a timeless piece. Imagine my surprise when, upon reading it 10 years later, I came upon these words: "Most distance education providers agree that the ideal distance learning classroom is one that is completely live two-way video and audio delivered via fiber optic technology, with a small number of students."

We said that? As my kids would say, LOL! Here we were writing an article about how to select appropriate technology for distance learning (or so we thought), and this statement appears on the first page. I suppose this makes my current column even more important. In 1994, we (as distance educators) were high on live two-way videoconferencing as the ideal technology. I am not by any means knocking ITV. I think it is an excellent delivery system, and I'm sure my colleagues at

Tandberg, Polycom, and VTel would heartily agree. But, so is the telephone, fax machine, satellite, printed paper, videotapes, and of course, the Internet! We thought we were writing a ground-breaking article but fell into the same old trap while we were writing. It's not the technology.

So now that I have aged and somewhat shamed myself (and my coauthors), let me go back to the real reason behind the writing of that article and why it's still important today.

Our article categorized instructional content into two categories: motion and nonmotion. This is how we defined the categories: "A course contains motion curriculum if the instruction requires motion in its presentation to the student. In other words, if motion is a mandatory part of the delivery in order for the student to understand the concept(s) being presented.… On the other hand, non-motion curricula are those that can be taught without motion *in the delivery*."

Within the article, we provided a means by which to select appropriate technology based on whether or not motion was required in the instructional delivery. We emphasized a focus on content and learning outcomes first, and delivery method second. Let the content drive the technology decisions, not the other way around. And yet,

today—just as it was 10 years ago—we find ourselves talking the talk but not walking the walk.

Using the Web to deliver instruction has taken over. This is not necessarily a bad thing. As far as electronic delivery, the vast majority of learners can now access the Internet from home, work, school, or a library. But just as distance educators earlier adopted microwave, satellite, videotape, and interactive videoconferencing, we've done the same thing with the Internet. Throw streaming media into the mix and you can get some in our profession so excited they can't wait to develop their next course as a completely streamed series of lectures over the Internet! Bleah!

If we are going to retain the high quality of distance education, we have to focus on the quality of the instruction, not how it's delivered. The delivery is important, and there are many factors that will influence decisions, but the content must be the driver in the process. Even if a course is developed completely for online delivery, the selection of appropriate technology still applies within. We are a creative profession. We shouldn't be taking the easy way out by just picking a technology (1) because we already own it, (2) we already know how to apply it, or (3) because it's the new "thing." Having a choice is what distance learning is based on—why not extend that to development?

It's not the technology, it's the content. Sorry, my vendor colleagues. We do need all of the technologies you offer, but we must let the content—not your products or services—drive our decisions.

To summarize the issue, here is what my brilliant communication manager, Jennifer Rees, had to say:

No one talks about what kind of paints Pollock or Matisse used. No one asks John Grisham what PC and version of MS Office he uses. No one asks about Francis Ford Coppola's camera. Because … they are communicating ideas and concepts and what's important is the communication strategy. People do care what car NASCAR drivers drive, what plane Lindbergh flew, etc. because they were not communicating ideas and concepts (at least not primarily), they were/are about the technology. We aren't talking about how fast our videos can stream, we're talking about what they teach. We aren't talking about what CMS our expert faculty house their course in, we are talking about their content. It's not about the technology, it's about the teaching and learning.

Couldn't have said it better myself. Wish I had, though. ☺

Class Size
Where is the Research?

Michael Simonson

A myth is a legend or story that attempts to account for something in nature. Often myths are invented by someone or some group to explain a situation or phenomena, or to create something supernatural. Myths conjure up names like Hercules, Orpheus, and Ulysses, or in more recent times, Superman, Captain Marvel, or Wonder Woman.

Distance education is not without its myths. Two come to mind

Michael Simonson, Editor, *Distance Learning*, and Program Professor, Programs in Instructional Technology and Distance Education, Fischler School of Education, Nova Southeastern University, 1750 NE 167 St., North Miami Beach, FL 33162.
Telephone: (954) 262-8563.
E-mail: simsmich@nsu.nova.edu

quickly. The first is called the "more work" myth, and it goes something like this: "Teaching at a distance takes more work." The proof of this myth is often stated thusly: "Why, I had 200 emails last week alone."

The second myth deals with class size and is even more interesting because it is proposed differently by different people, almost always depending on their job. The first interpretation of the class size myth is that *smaller is better*—10, 12, or 15 students are the maximum size for a distance education class. Most often, the same group that says teaching at a distance is more work are the advocates for smaller class sizes.

A second group makes the claim that, because distance education courses do not require a classroom, one course can have dozens—even hundreds—of students enrolled. It really makes no difference how many, if the course is organized correctly. This group is almost always made up of administrators or those who are not teachers. And, there is even a major disciple of this approach. Otto Peters and his theory of industrialization have demonstrated the economies of mega-sized educational organizations

called Open Universities. Interestingly, when Peters' principles have been tried in the United States, they have been much less successful than in Europe.

If distance education is to be credible and adopted widely, then definitive statements about instructor effort and class size must be developed. And, the only truly definitive statements about issues such as these, statements that will stand close inspection, are those based on research. The questions are many; unfortunately, the mythical answers are many also.

Questions such as these require clear, definitive answers. Is distance teaching really more work? Must classes be small to be interactive? And, if they are small, is it possible to have learners work in teams? Should classes be large so teaming is easier, and so the economies of scale come into play?

And finally, traditional education has answered questions about class size and work load, if not by research, at least by common practice. Any professor or teacher can tell you how many students should be in a class, and they know within limits what constitutes a fair work load. Where are the distance education researchers to help us develop our own answers?