Jesuit Distance Education Network (JesuitNET)

Evaluation Report 2001-2003

Competency Assessment in Distance Education (CADE)

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Competency Assessment in Distance Education

Evaluation Report

Summary

The Center for Educational Technologies® (CET) at Wheeling Jesuit University conducted an evaluation study of the Competency Assessment in Distance Education (CADE) workshops held from fall 2001 through summer 2003. Working in close partnership with Georgetown University's Center for New Designs in Learning and Scholarship (CNDLS), the Jesuit Distance Education Network (JesuitNET) team developed an innovative instructional design workshop for developing competency-based courses. CADE-designed courses use a backward design process that develops a course from the goals for student learning *backward* to building the syllabus around instructional activities. Development of the CADE workshop was funded by a grant from the U.S. Department of Education's Learning Anytime Anywhere Partnerships (LAAP) program.

The evaluation was designed around three areas of inquiry: demographic profile of workshop participants, quality of participation in CADE workshops, and quality of portfolio materials developed by workshop participants. The evaluation consisted of formative and summative approaches. A 15-item faculty survey was developed to collect data on workshop participation and their evaluative perspectives. A rating instrument was used to evaluate the quality of portfolio materials. Interviews with participants and review of workshop materials, including threaded discussions, complemented data collection strategies. Based on the analysis of the theoretical framework supporting the workshop design, workshop materials, preliminary pilots, survey data, and review of portfolio materials, six conclusions emerged from evaluation results:

1. The CADE workshop represents a sound application of educational theory to designing and implementing professional development for higher education faculty interested in developing online courses.

2. The CADE workshop followed a highly dynamic and successful process for continuous improvement of workshop design and delivery.

3. The CADE workshop met its goal of serving faculty from Jesuit colleges and universities interested in developing online courses.

4. The quality of the workshops was consistently high and increased over time due perhaps to changes based on feedback from participants.

5. Participation in CADE workshops has a positive impact on learning outcomes as demonstrated by high quality of portfolio materials produced by workshop participants.

6. Further improvement of the CADE model may require a new approach for implementation supported directly by individual Jesuit colleges and universities.

Background

Created in 1999, the Jesuit Distance Education Network (JesuitNET) is a collaborative effort of 26 U.S. Jesuit colleges and universities to develop, share and deliver a broad range of online academic programs and services for a national and eventually international audience. Educational quality is paramount in JesuitNET-supported curriculum design and development, and JesuitNET actively supports incorporating academic rigor, personalized instruction, faculty support, service learning and ethical concerns into the design and structure of Jesuit university courses and programs.

A key JesuitNET priority is the development and implementation of a model for distance education to help faculty rethink course design, moving away from content-driven approaches and focusing on student competency mastery. The model, known as Competency Assessment in Distance Education (CADE), was initially tested with small developmental teams before it was offered as an operational online workshop for Jesuit university faculty. Development of the CADE workshop was funded by a grant from the U.S. Department of Education's Learning Anytime Anywhere Partnerships (LAAP) program.

The Center for Educational Technologies at Wheeling Jesuit University conducted the evaluation of the JesuitNET LAAP project activities. This report documents project activities from summer 2001 through summer 2003 and presents related evaluation results.

CADE Workshop Design

Working in close partnership with Georgetown University's Center for New Designs in Learning and Scholarship (CNDLS), the JesuitNET CADE team has developed an innovative instructional design workshop for developing competency-based courses. CADE-designed courses use a backward design process that develops a course from the goals for student learning *backward* to building the syllabus around instructional activities.

Many courses are developed with the primary emphasis on creating instructional tasks or activities, without an explicit emphasis on assessment or a clear sense of learning goals. The flow of the CADE backward design approach from competencies to evidence to tasks, however, makes the assessment of student competencies within designed tasks explicit from the start. This process organizes course design around three phases of development:

- The first phase identifies the specific set of *competencies* for students to master--
  What do faculty want students to know, understand, or be able to do?

- The second phase identifies the *evidence* needed to indicate student mastery--
  How will faculty know if students have attained these competencies?

- The third phase identifies the instructional *tasks* needed to reveal the evidence--*How will faculty create an instructional environment in which students interact meaningfully with the content?*

In addition to the development of CADE-designed courses within the competencies to evidence to tasks process, the workshop offers two supporting methodologies to help faculty in the process of identifying evidence and designing tasks—*Evidence Analysis* and *Cognitive Apprenticeship*.

CADE workshop participants will develop courses based on the goals for the course and desired competencies for students to master *(i.e., What do I want students to know, understand, or be able to do?)* What evidence, then, will faculty have to determine student understanding? And how will they obtain that evidence?

By conducting an *Evidence Analysis*, faculty focus on understanding how people use knowledge to carry out their tasks. Evidence analysis helps faculty to think deeply about assessment, and to identify student performance and differentiate among various levels of performance. Many academic disciplines are characterized by two broad categories of knowledge--domain and strategic. *Domain* knowledge represents conceptual, factual and procedural knowledge inherent in a field. *Strategic* knowledge represents the higher-level thinking skills, processes and methods used by experts to solve problems. Evidence analysis is a method by which to make a distinction between the two types of knowledge and how to use them effectively in courses.

Once faculty are equipped with a deeper understanding of the evidence needed to attain competencies, they need to create meaningful learning environments for students. *Cognitive Apprenticeship* provides a framework for both teaching and learning based on the traditional notions of apprenticeship where the expert (or teacher) transfers knowledge to the novice (or student). Experts do not simply know more than novices, they approach a problem differently. This framework consists of seven key concepts—*modeling, coaching, scaffolding, fading, reflection, articulation, and exploration*--that help to translate face-to-face teaching practices to the online environment. CADE-designed courses will enable students to work within an environment where they are encouraged to develop skills and competencies at an expert level.

The foundations supporting the CADE conceptual framework come from research on situated cognition and cognitive apprenticeship (Brown, Collins, & Duguid, 1989), supporting teaching strategies (Collins, Brown, & Newman, 1989), knowledge construction process (Hogan & Pressley, 1997; Kang & Byun, 2001), and teaching for understanding (McTighe & Wiggins, 1999; Perkins, 1993).

Developmental Workshops

The foundations of the CADE model were initially tested through a two-day workshop conducted in July 2001 by staff from Georgetown University's Center for New Designs in Learning and Scholarship (CDNLS). The goal was to support faculty course designers charged with the delivery of the first two competency-based online courses in fall 2001.

The second developmental workshop was designed and taught by CNDLS staff in fall 2001. The purpose was twofold: to formally begin assisting a small group of faculty

in developing their own online competency-based courses, and to gauge how well the faculty development model worked. The fall 2002 workshop began with the first two sessions held face-to-face and the remaining sessions held online. Using feedback from this workshop, a third and final developmental workshop was offered in spring 2002 completely online to continue helping a small group of faculty learn about developing online courses and to refine the workshop model.

The CADE Model

In fall 2002, the operational CADE workshop was offered in two entirely-online sections to a larger group of faculty for the first time with an enrollment of 25 participants. In spring 2003 the workshop reached its enrollment capacity with 32 participating faculty in two sections. In summer 2003, 18 faculty members participated in a single-section workshop. A sample CADE workshop outline is provided in Appendix A.

Organization

Typically, the CADE workshops are organized into two concurrent sections with a balanced number of participants in each section. The purpose is to form working groups within each section to make participation more manageable and productive. In addition, each working group is required to have the support of an instructional technology and library resources team. The support team provides local technical assistance to each participant.

The CADE workshops focus on helping participants develop a shared understanding of the theoretical framework supporting the workshop design. The model also emphasizes the articulation of student competencies for an online course, selecting learning problems or situations to assess mastery of competencies and to analyze them in terms of performance and content. This is followed by a review of appropriate teaching strategies. Finally, the workshop model allows participants to review their work, using portfolio worksheets, and develop an outline for an online course to be implemented upon completion of the workshop.

Course Supports and Resources

The workshops provide a series of materials in various formats (e.g., media presentations, slide shows, articles) to facilitate the understanding of the conceptual approach for designing and implementing online courses. The workshops also provide related tools, including templates and worksheets, to mediate reflection and mastery of competencies.

Reflection and Discussion

A Blackboard-hosted main discussion board is a standard feature for introductions, reflection, discussion, and comments. Summative comments are expected from the facilitator or participants every two weeks. Also, each working group has access to a small discussion board and a file-sharing area to facilitate collaboration and design activities.

Workshop Expectations

A comprehensive framework for developing a competency-based online course guides the workshops. Each workshop participant prepares a 15-page portfolio that consists of six worksheets and accompanying narratives. The completed portfolio is a professional piece of online course design documentation. Completion of the portfolio's worksheets and narratives reinforces the CADE design process, and

provides an excellent building block for subsequent course production and implementation. Specifically, participants are expected to:

- Learn a useful, competency-based approach for developing online courses.
- See the importance of teaching for understanding in the online environment.
- Use new concepts and ideas to enhance knowledge about teaching and student learning in their own disciplines.
- Develop and understand the role of the teacher as a facilitator of ideas and thinking processes.
- Reflect purposefully on teaching practice and student learning and the interaction between the two.

Each participant is expected to spend a total of about ninety hours completing workshop materials and activities and contributing to related discussions. Participants are also expected to log in regularly during each week for consistent participation. Assignments, in the form of worksheets, are used to facilitate participation. Participants are expected to share working documents with peers rather than turning them in for traditional grading.

Evaluation Approach

The evaluation approach of the CET team focused on the quality of the CADE workshops and impact on the quality of portfolio materials developed by participating faculty. The evaluation approach also focused on formative and summative strategies and included qualitative and quantitative strategies for data collection and analysis. This evaluation report includes documentation and analysis of workshop activities conducted from summer 2001 through summer 2003.

Evaluation Questions

The evaluation inquiry focused on documentation and analysis of workshop participation, including enrollment trends, quality of experiences, and impact of participation on the quality of portfolio materials developed by workshop participants. Three major questions guided the evaluation of JesuitNET project activities:

1. What is the demographic profile of workshop participants? This question served as the basis for documenting participation in the workshops, profiling participants' background, and determining participation rates.

2. What is the nature and quality of participation in workshops? This question was designed to elicit evidence on the extent of participation in discussion forums, team collaboration, general level of engagement in workshop activities, and evaluative perspectives on the workshop.

3. What is the quality of portfolio materials developed by workshop participants? This question guided the inquiry on the extent to which the portfolio materials developed by participants met relevant criteria for designing an online course.

Data Collection Strands and Instrumentation

Three strands of data collection were used to document the evaluation of JesuitNET activities. The first strand of data collection targeted demographic information. The second involved data on evaluative perspectives of faculty participating in workshops. The third strand was concerned with data on the quality of portfolio materials produced by participating faculty.

A 15-item faculty survey was developed to collect data on workshop participation and their evaluative perspectives. Items were identified and written with input from JesuitNET and CNDLS staff. An electronic version was developed and included 11 items requiring a quantifiable response and 4 open-ended items to capture free comments (see Appendix B).

The rating instrument, shown in Appendix C, was developed to evaluate the quality of portfolio materials. The instrument was designed to evaluate each of the portfolio categories, including thinking about competencies, evidence of student mastery, evidence analysis, instructional strategies, and storyboard. An additional category, professional readability, was added since it was found to be an implicit key expectation for portfolio materials as a whole. The criteria and indicators for each category were identified through an in-depth review of workshop materials, worksheet instructions, and general expectations for completion. The quality index was represented using a 5-point scale ranging from "1 = very low quality" to "5 = very high quality."

Data Collection Procedures

Each workshop was monitored routinely to gauge interactions and nature of questions, concerns, reflections, and discussions. At the end of each workshop, participants were asked to provide summative feedback by responding to an online faculty survey. Workshop participants were directed to the survey site and assured that names were used only for managing the data and that individual information/responses would remain confidential. Also, samples of course materials developed by workshop participants were collected from electronic postings along with reflections on course participation.

The review of portfolio materials was based on a random sample of materials available only from the spring and summer 2003 workshops. JesuitNET staff provided five sets of materials from each workshop. A team of two reviewers examined the portfolio materials. Reviewers' ratings were initially compared to ensure consistency in both the reviewing process and scoring.

Analytical Procedures

Evaluation data were captured on Microsoft® Excel® worksheets and later imported as datasets into an SPSS format for analysis. The analysis relied on descriptive statistics to summarize results, and simple t-tests were performed when sufficient cases were available. Qualitative data was managed using a Word document and analyzed in light of evaluation questions. Open-ended information was used to complement results reported through descriptive statistics. All data tables are presented in Appendix D, and open comments can be found in Appendix E.

Results

The results are organized into two major sections. First, we highlight formative results focusing on design changes resulting from the developmental workshops and from the operational CADE workshops. Secondly, we present summative evaluation results based on survey data and review of portfolio materials.

Formative Results

Design changes were identified in two stages of the project. The first stage involved participants' feedback from the developmental workshops. The second stage involved feedback from the operational CADE workshops.

Design Feedback: Developmental Workshops

The first developmental workshop was an intensive two-day session conducted in July 2001. The purpose of the workshop was to help JesuitNET faculty develop the first two online courses (*Database Systems* and *Research Ethics*) for implementation in fall 2001. The workshop was designed and taught by staff from the Georgetown University's Center for New Designs in Learning and Scholarship (CNDLS). Four faculty members from Loyola University Chicago participated in this preliminary workshop. The participants appreciated the two-day workshop because they felt they "were sort of blazing the trail." Although participants found the workshop very useful, a key finding was the realization that much more effort than anticipated was needed to develop an online course (Scott & McGee, 2002; faculty interview, spring 2003). This first developmental workshop provided the basis for designing two subsequent pilot workshops. The first significant change resulted in adopting a 12-week duration for the fall 2001 and spring 2002 developmental workshops.

The second developmental workshop was conducted during the fall 2001 semester. Four faculty members, two from Fordham University (*Data Warehousing* course) and two from Saint Louis University (*Land Use Analysis* course), participated in the workshop. Overall, participants expected the usual templates for online course development and were surprised to be required to think deeply about design ideas. As a result, participants were overwhelmed by the new educational concepts and said they would have chosen different courses to focus their design efforts to benefit more from the hybrid (on-campus plus online) two-day workshop. All things considered, though, participants' reactions to the fall 2001 workshop were positive (Scott & McGee, 2002).

Based on feedback from the fall 2001 workshop, the following changes were made to the third developmental workshop offered in spring 2002 semester: (a) a team of instructors facilitated the workshop rather than just one person as in the previous workshop, (b) design and production were made distinctly separate phases of the workshop, and (c) educational concepts supporting the framework of the workshop were to be presented more explicitly. Four faculty members participated in the spring 2002 workshop: two from Loyola University Chicago (*Principles of Health Care Ethics* course) and two from the University of Detroit Mercy (*The City Viewed through Film, Literature and Media* course). In general, participants reported high satisfaction with the workshop. They were very pleased with support provided by instructional staff but felt that education terms such as "backward design," "scaffolding," and "cognitive apprenticeship" were used too casually at the beginning of the workshop when they had not yet been well explained. Participating faculty felt that these terms should have been introduced more gradually and in a less formal terminology. The

other lingering issue was the time required to participate in workshop activities, which for the majority of the participants was more than expected (Scott, 2002).

Design Feedback: Operational CADE Workshops

Using feedback from the developmental workshops, the first operational CADE workshop was offered in fall 2002. Supporting instructional materials and interface features were refined to make the workshop structures more user friendly and easier to navigate. Also, the expectations for workshop participation were clearly communicated, including the time required to participate in workshop activities. The approach to terminology and use of instructional design concepts were refined for consistency and to facilitate understanding. Twenty-five faculty members enrolled in the workshop's two sections. Overall, the majority of participants responding to a workshop survey had positive evaluative perspectives. In terms of design changes, nine recommendations emerged from evaluation data and suggestions by survey respondents. Recommendations for improvement addressed issues related to assigning participants to workshop sections, clarifying workshop expectations, facilitating discussion forums, verifying capacity and compatibility to handle workshop technology before enrollment, allowing participants to make progress at their own pace, and introducing design concepts (Hernandez, McGee, & Kirby, 2003a).

Significant design changes were incorporated into the design of the spring 2003 workshop based on feedback from the fall 2002 workshop. Potential participants were provided with a clear set of expectations for participation via a workshop "contract." Before enrolling in the course, participants were provided with an opportunity to test their technological capability to participate. Another key change occurred in the form of a restructured workshop schedule to make the flow of the activities and grasp of design concepts more effective. The workshop interface was further improved, and the quality of workshop structures looked sharper. As a result, the workshop received very positive evaluations. The lingering issues related to treatment of workshop expectations and design concepts were not mentioned by participating faculty, signaling the impact of design changes. Nonetheless, eight recommendations emerged from evaluation data and suggestions by survey respondents. Suggestions for improvement of the summer 2003 workshop ranged from ensuring sustained workshop participation to providing "graduates" with follow-up access to workshop discussion forums (Hernandez, McGee, & Kirby, 2003b).

Summative Results

The summative results highlight three areas of interest aligned with evaluation questions. First, we present data on overall workshop participation and background characteristics. Second, we summarize and describe patterns on evaluative perspectives regarding workshop experiences. We conclude with a description of data resulting from the review of portfolio materials developed by workshop participants.

Workshop Enrollment

Table 1 shows overall workshop enrollment, including participation in the developmental workshops (summer and fall 2001, spring 2002) and operational CADE workshops offered in fall 2002, and spring and summer 2003. Overall, 87 faculty participated in the workshops from fall 2001 to summer 2003. This includes 12 faculty members who participated in the developmental workshops and 75 faculty who participated in operational CADE workshops.

Table 1. Overall Participation during Developmental Workshops (summer-fall 2001, spring 2003) and Operational CADE Workshops (fall 2002, spring-summer 2003).

	College/University	Summer 01	Fall 01	Spring 02	Fall 02	Spring 03	Summer 03	Total
1	Boston College					1	2	3
2	Canisius College					2		2
3	Creighton University				1	3	1	5
4	Fairfield University					1		1
5	Fordham University		2				1	3
6	Georgetown University				1	1		2
7	Gonzaga University				2	4	2	8
8	Universidad Rafael Landivar, Guatemala						1	1
9	John Carroll University				1			1
10	Le Moyne College						2	2
11	Loyola College, Maryland				2			2
12	Loyola Marymount University						2	2
13	Loyola University, Chicago	4		2	1	1	1	9
14	Loyola University, New Orleans					1	1	2
15	Marquette University				2	1		3
16	Marymount College of Fordham					1		1
17	Pontificia Universidad Javeriana - Cali, Colombia						1	1
18	Regis University				1	3		4
19	Rockhurst University					1		1
20	Santa Clara University				1			1
21	Seattle University				1			1
22	Spring Hill College				1	1		2
23	St. Joseph's University				6			6
24	St. Louis University		2		1			3
25	St. Peter's College					1		1
26	University Alberto Hurtado,				1			1
27	University of Detroit-Mercy			2	1			3
28	Universidad Ibero-Americana - Leon, Mexico						1	1
29	Universidad Ibero-Americana - Puebla, Mexico						2	2
30	University of San Francisco					5	1	6
31	University of Scranton				1			1
32	Wheeling Jesuit University				1	2		3
33	Xavier University					3		3
	Total	**4**	**4**	**4**	**25**	**32**	**18**	**87**

An average of twelve faculty members participated in each section of the operational CADE workshops. Considering overall participation, enrollment by gender was relatively balanced (54 percent male, 46 percent female). Further, collective

enrollment showed representation of practically all Jesuit colleges and universities in the United States and five international Jesuit institutions.

Table 2 summarizes the background characteristics of CADE workshop participants based on survey responses considering data from fall 2002, spring 2003, and summer 2003. Based on the combined enrollment in all three CADE workshops (n = 75), 59 percent of all participants completed the workshop survey. Based on the number of survey completers, gender participation was relatively comparable to that observed for overall enrollment (55 percent male, 45 percent female).

Table 2. Background Characteristics (in percentages) of CADE Workshop Participants Based on Survey Responses (total n = 44).

Background Variable		Fall 2002	Spring 2003	Summer 2003	Overall
Gender	Male	61 (8)	35 (7)	82 (9)	55 (24)*
	Female	39 (5)	65 (13)	18 (2)	45 (20)
Workshops Attended	0	8 (1)	5 (1)	9 (1)	7 (3)
	1-2	31 (4)	30 (6)	9 (1)	25 (11)
	3-5	38 (5)	30 (6)	55 (6)	39 (17)
	6+	23 (3)	35 (7)	27 (3)	29 (13)
Courses Taught Online	0	50 (6)	65 (13)	55 (6)	57 (25)
	1-2	34 (5)	10 (2)	18 (2)	20 (9)
	3-5	8 (1)	15 (3)	18 (2)	14 (6)
	6+	8 (1)	10 (2)	9 (1)	9 (4)
Years of Teaching	None	0 (0)	15 (3)	0 (0)	7 (3)
	1-5	46 (6)	15 (3)	0 (0)	20 (9)
	6-10	15 (2)	20 (4)	18 (2)	18 (8)
	10+	39 (5)	50 (10)	82 (9)	55 (24)

* Frequencies are noted in parentheses.

Participating faculty can be characterized as seasoned teachers with the majority having six or more years of teaching experience across the board (73 percent overall). Only in fall 2002 was there a significant representation of faculty in their first five years of teaching (46 percent). Prior attendance to workshops related to teaching methods in online environments resembled a normal distribution showing a higher percentage of participants reporting attendance to 3-5 workshops (39 percent, overall). This trend was relatively consistent across all CADE workshops. Further, the majority of the participants in each of the CADE workshops had no experience teaching online courses, while the rest represented various levels of experience.

Perspectives on Workshop Participation

The evaluation of the delivery model for the workshop was grounded in the evaluative perspectives of the participants on key aspects using the following indicators: participation in discussion forums, access to workshop supports, time and effort required for participation, and overall satisfaction.

Participation in Discussion Forums

Two discussion forums were available in the workshops to facilitate exchange of ideas and feedback in the larger group and in working teams. Table 3 summarizes the survey responses for the large and small discussion forums across CADE workshops.

Participants indicated that the quality of electronic discussions was good and equally valuable regardless of the type of the discussion forum. For some participants "the direct feedback from members [in small discussion forums] was the most helpful," while for others "the larger group sessions were more informative and engaging." An examination of data in Table 3 validates this perspective. The majority of participants reported frequent access to both large and small discussion forums across CADE workshops (81 percent and 57 percent overall, respectively). As a participant in the spring 2003 workshop put it, it was "the content rather than the size of the group" that elicited participation in discussion forums. A key to facilitating participation was the use of discussion questions, as another spring 2003 workshop participant noted:

> "At times, I really liked the discussion format, especially if I had a question. I was not always able to be the first to respond to the discussion question of the week—and it was helpful to see how other participants would start the discussion" (Open comments, spring 2003 survey).

Table 3. Rate of Participation in Large and Small Discussion Forums.

Discussion Forum		Fall 2002	Spring 2003	Summer 2003	Overall
Large Discussion Forum	Not at all	0 (0)	0 (0)	0 (0)	0 (0)
	Infrequently (a few times)	17 (2)	0 (0)	0 (0)	5 (2)
	Somewhat Frequently (monthly)	8 (1)	15 (3)	18 (2)	14 (6)
	Frequently (weekly)	75 (9)	85 (17)	82 (9)	81 (35)
Small Discussion Forum	Not at all	0 (0)	10 (2)	0 (0)	5 (2)
	Infrequently	33 (4)	21 (4)	9 (1)	21 (9)
	Somewhat Frequently	17 (2)	16 (3)	18 (2)	17 (7)
	Frequently	50 (6)	53 (10)	73 (8)	57 (24)

* Frequencies are noted in parentheses.

Although participants appreciated both large and small discussion forums, a consistent trend across CADE workshops was a marked preference for participation in large discussion forums. Overall, 81 percent of the participants reported frequent access (weekly) to the large discussion forums, compared to 57 percent for small discussion forums. Below are some explanations for this result:

> "The [large] discussion board was most helpful, but that's because there was so little participation by many of the participants. If we had had full participation, the smaller groups would likely have been better, and the main discussion board would have been too chaotic. I think this is an example of how one must have several venues available" (Open comments, fall 2002 survey).

> "I found the large group discussions more helpful than the small group discussions as my small group did not discuss much. I found it helpful to read the postings from other people to get their opinions on the topics being discussed that week. Sometimes the questions seemed daunting to me, and it was helpful to read other people's answers before thinking up my own" (Open comments, spring 2003 survey).
>
> "I felt that the general discussion forums (large group) were more helpful since they allowed me to feel a part of the 'whole' group and made [the experience] feel more like a class" (Open comments, summer 2003 survey).

It is important to note, however, the rate of frequent participation in small discussion forums improved in each workshop, moving from 50 percent in fall 2002 to 73 percent in summer 2003. An explanation for this emerged in open comments. For example, in fall 2002 some participants felt "the small groups were too small and did not provide for a broadly based exchange of views/ideas/comments." By comparison, some respondents in the summer 2003 workshop viewed the small discussion forums as most helpful because they could "have a more personal relationship with [working group] partners."

Although overall participation in discussion forums was relatively frequent across workshops, open commentary noted some important issues preventing higher quality and frequency in participation. For example, some participants indicated it was a challenge to participate in discussion forums due to conflicts with already busy schedules. Others suggested the lack of institutional incentives (e.g., non-credit workshop) might be a factor in limiting the motivation to participate more consistently in discussion forums.

Access to Workshop Supports

The workshop was designed to provide participants with team supports by requiring the participation of local librarians and technology staff. Instructional support was provided through direct electronic feedback and discussion forums. Another level of support refers to the quality of workshop materials. The extent of contact with librarians and technology staff is presented in Table 4.

Contact with Library and Technology Staff. As hinted by results about participation in small discussion forums, collaboration with librarians and technology staff across groups in each section was somewhat limited. The majority of respondents in each section had either infrequent or no contact at all with their librarians (84 percent overall combined) or with instructional technology staff (74 percent overall combined). This trend was consistent across the three workshops.

In some instances the problem was related to technical difficulties with the capacity of equipment to handle workshop materials online. One respondent reported, "There were some technical issues with the video streaming component that need to be addressed. Perhaps when the workshops are conducted locally this could be minimized" (Open comments, fall 2002 survey). Another respondent, who was unable to access the class on campus because of network problems, reported a similar problem. Combined with time demands on other activities, it is no surprise that participants might have had little time to work with librarians and technology staff on course design and development issues. The following comment best summarized this situation:

> "I started out this class with a few serious technological difficulties on my end, and that put me in a catch-up mode from day one. I found it difficult to catch up with the course as the semester moved on" (Open comments, fall 2002 survey).

Table 4. Rate of Contact with Local Support Staff.

Support Staff		Fall 2002	Spring 2003	Summer 2003	Overall
Contact with Librarian	Not at all	50 (6)	10 (2)	20 (2)	24 (10)
	Infrequently (a few times)	34 (4)	65 (13)	80 (8)	60 (25)
	Somewhat Frequently (monthly)	8 (1)	15 (3)	0 (0)	9 (4)
	Frequently (weekly)	8 (1)	10 (2)	0 (0)	7 (3)
Contact with Tech Staff	Not at all	33 (4)	10 (2)	20 (2)	19 (8)
	Infrequently	33 (4)	60 (12)	70 (7)	55 (23)
	Somewhat Frequently	9 (1)	15 (3)	0 (0)	9 (4
	Frequently	25 (3)	15 (3)	10 (1)	17 (7)

* Frequencies are noted in parentheses.

In other cases the limited contact may have resulted from a misunderstanding of the purpose:

> "The small group forums, as far as I can tell, were set up only to collect portfolios when the digital drop box was too complicated. I thought it was intended as a forum for library/IT folks, but they don't really have a commitment to the workshop, they are just committed to supporting their faculty directly" (Open comments, spring 2003 survey).

Whatever the case, respondents appeared to have turned this experience into a learning insight with direct relevancy to designing and teaching courses online. The following comments typify this view:

> "Timely and effective communication between the instructor and the student is essential for a successful workshop/course. I would think groups that were too large would be a major threat to effective communications" (Open comments, fall 2002 survey).

> "I also learned that it was DIFFICULT to log on to meet the deadline for discussion every week. This made me understand why students often have difficulty meeting deadlines. I found myself relaxing the deadlines a bit in the two online courses I was teaching while taking this workshop" (Open comments, spring 2003 survey).

> "Problems with posting lead to much discouragement. This was great! I now know how students feel when they don't receive timely responses or when technology is not working properly. I am giving lots of thought as to how I might design an online course" (Open comments, spring 2003 survey).

Contact with Instructor. Feedback from instructors was appreciated across all workshops. Overall, respondents had very positive comments about related support and thought the instructors "did a really good job" in this regard. One respondent captured the importance of quality support from the instructor: "A key to my being able to stay current in this course was the timely response to both my discussion board threads and e-mails from the instructor" (Open comments, fall 2002 survey).

Another participant described the instructor as "very knowledgeable, helpful, and focused" and appreciated her patience with participants who needed frequent assistance. This was particularly important for creating a "friendly online environment" in the workshop. Others added that the workshop was demanding and challenging thanks to the role and specific feedback provided by the instructor. The comments below summarize what respondents thought of the instructors:

> "I also believe that the instructors are extremely knowledgeable in the subject. I also feel that the instructors had at all times a desire to improve the quality of education not only [related to the CADE] workshop but also of the participants' courses used in the process" (Open comments, fall 2002 survey).
>
> "For me this was a demanding course. The instructors clearly have devoted considerable effort in developing a thorough and challenging learning experience, and I have been very impressed with the quality of the course, [and] with the specific feedback from the instructor" (Open comments, spring 2003 survey).
>
> "[The instructor] was the perfect facilitator. She provided timely and insightful feedback on the worksheets. She also created an atmosphere that had been good for me, an atmosphere that allowed me to find out more about the topics we were learning so I am more comfortable applying them to the portfolio assignments" (Open comments, summer 2003 survey).

The interaction with instructors was so appreciated across workshops that in some instances respondents wished for increased contributions in discussion forums and felt they needed the instructor's "presence" to motivate them and hold them "accountable for the work of the course."

Workshop Materials/Readings. Overall, respondents had very positive feedback on the quality of workshop materials and readings across all CADE workshops. Several respondents viewed the readings and instructional tools (e.g., portfolio assignments) as very helpful because they articulated important concepts in a clear and applied manner. Further, respondents thought the "course materials were well organized" and helped them understand and complete weekly assignments. The following comments expressed the typical perspectives:

> "The material covered in the textbook and articles was excellent. I'll be going back to those materials again and again. They were very helpful and written in a very user-friendly way. As a result of these readings and the worksheets, I'll be approaching course design in a much different way" (Open comments, fall 2002 survey).

> "I appreciated the materials that made an effort to articulate a theoretical foundation for the unique experience of distance learning. The early readings from 'Understanding by Design' were helpful in this regard. They communicated a clear message that distance learning requires thinking anew about what specific competencies students are expected to develop as well as the specific learning activities, which offer the most useful vehicles for that development" (Open comments, spring 2003 survey).

Time and Effort Required for Participation

An important indicator of quality of participation was time spent on workshop activities. This indicator was closely associated with perceived level of effort required for participation. Based on these indicators and overall experience, respondents also reported their ideas about the ideal duration of CADE workshops. Table 5 presents a summary of related survey results.

About Time and Effort Required. Across all of the workshops, participants reported the workshop took more time and effort than they had anticipated. Overall, 46 percent of survey respondents reported having spent five hours or less a week (below the expected range of engagement), while 34 percent said they spent between five and nine hours a week (at the expected range of engagement). The rest (20 percent) reported working more than nine hours a week (above range of engagement). This trend was more prominent in fall 2002 with 75 percent of respondents indicating having spent five hours or less in workshop related activities. Table 5 shows that time spent on workshop activities increased in subsequent CADE workshops offered in spring and summer 2003.

Further, across workshops the majority of survey respondents consistently reported that the level of effort required to participate in the workshop was more than expected (65 percent overall) given the nature of the noncredit activity. Some respondents suggested it was difficult trying to juggle family and busy work schedules, which prevented them from spending more time on workshop activities For example, a couple of respondents said:

> "I miscalculated how much time would be required, and some circumstances in my day job developed prohibiting me from completing my work" (Open comments, fall 2002 survey).

> "The workshop was very well organized and obviously useful, but the amount of work required much more motivation than a free, noncredit course could elicit (from me) during a teaching semester" (Open comments, spring 2003 survey).

All in all, respondents noted that the amount of time and effort required to design and develop online courses was an eye-opener, demanding but worthwhile. They added that participants should have a very strong commitment to participate along with an awareness of time demands. Open commentary also suggested the need for institutional incentives (e.g., release time, relevancy to tenure process) to ensure motivation to participate fully and consistently in workshop activities.

Table 5. Rate of Involvement and Effort on Workshop Activities and Perspectives on Workshop Duration.

Background Variable		Fall 2002	Spring 2003	Summer 2003	Overall
Time Spent on Workshop Activities	< 5 hrs/week	75 (9)	39 (7)	27 (3)	46 (19)
	5-9 hrs/week	17 (2)	44 (8)	37 (4)	34 (14)
	9-12 hrs/week	8 (1)	11 (2)	27 (3)	15 (6)
	12+ hrs/week	0 (0)	6 (1)	9 (1)	5 (2)
Level of Effort Required	Less than expected	17 (2)	0 (0)	0 (0)	5 (2)
	About level expected	25 (3)	30 (6)	36 (4)	30 (13)
	More than expected	58 (7)	70 (14)	64 (7)	65 (28)
Perspectives on Workshop Duration	Make it longer	36 (4)	16 (3)	22 (2)	23 (9)
	Keep as is	18 (2)	74 (14)	67 (6)	56 (22)
	Make it shorter	46 (5)	10 (2)	11 (1)	21 (8)

* Frequencies are noted in parentheses.

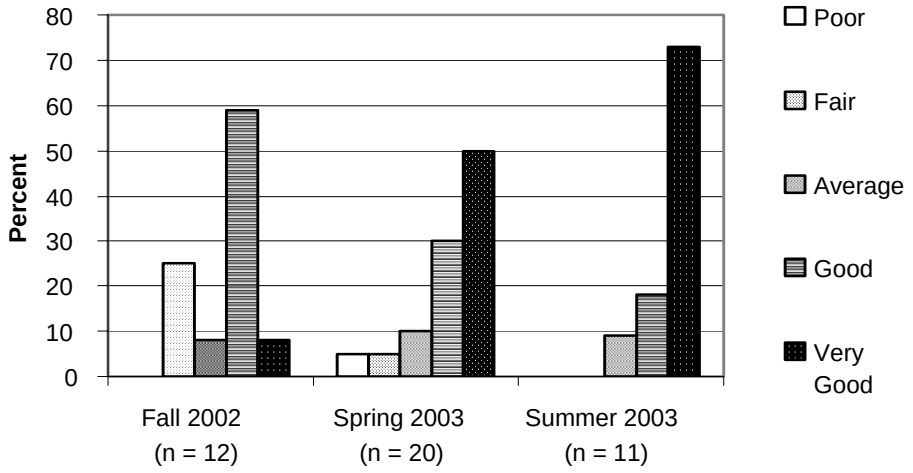
Workshop Duration. In the first formal CADE workshop strong opinions were offered for both a longer (36 percent) and shorter (46 percent) duration. As the implementation of the workshop continued to improve in subsequent offerings in spring and summer 2003, the majority suggested keeping the duration at 12 weeks (74 percent and 67 percent, respectively). It is clear that duration of the workshop became less of an issue for participants in latter workshops, which also translated into few or no open comments in this regard.

Overall Satisfaction

Figure 1 presents a graphic display of trends in workshop satisfaction. Three important trends can be highlighted upon an examination of Figure 1. First, when considering combined positive ratings including “good” and “very good” qualifiers, the percentage of respondents sharing this evaluative perspective increased from 67 percent in fall 2002 to 91 percent in summer 2003. This trend signals a high level of satisfaction with the workshop and might be a reflection of continuous workshop improvements. This evaluative perspective was consistent regardless of years of teaching experience, number of workshops attended, number of courses taught online, and gender.

Second, the “very good” ratings showed a consistent and substantial increase across workshops, moving from 8 percent in fall 2002 to 50 percent in spring 2003 and to 73 percent in summer 2003. Third, while the share of positive ratings was primarily supported by “good” ratings (59 percent) compared to “very good” (8 percent) ratings in fall 2002, the contribution of “very good” ratings to overall positive ratings in subsequent workshops was reversed, showing a higher share of “very good” ratings compared to “good” ratings (73 percent and 18 percent, respectively in summer 2003).

Figure 1. Level of Satisfaction with Workshop Participation.



Respondents' feedback was consistently positive and provided specific instances of how participants benefited. In some cases the perceived benefits were immediate and tangible for both online and face-to-face teaching, while in other cases the benefits were only anticipated. Below are some typical comments:

> "I am very grateful for your effort and think this course is great, both as an invaluable online experience as well as in terms of the literature and knowledge reviewed. Thank you very much" (Open comments, fall 2002 survey).
>
> "There is no question my exposure to a disciplined and structured approach to course design will be beneficial in how I prepare for my face-to-face classes and for my online course" (Open comments, fall 2002 survey).
>
> "It was a great workshop! [The workshops requires] a huge time commitment but [participation was] very worthwhile. Thanks!" (Open comments, spring 2003 survey).
>
> "This workshop has been excellent. This is my 12th online course [as] a student, and I'm sure that this one has been better than the others" (Open comments, summer 2003 survey).

Most Useful Concepts. The identification of concepts deemed useful by workshop participants emerged from the analysis of open comments. Two concepts were by far consistently identified across workshops as useful for designing online courses: student competencies and analysis of learning evidence. As reported by survey respondents, these two concepts were hard to separate, and workshop participants usually referred to them jointly. The comments below summarize the typical perspectives:

> "Articulating competencies [and] analyzing evidence [were most helpful]. I found the competency notion very useful. At first I was a bit put off by the

educational jargon, but upon reflection the idea of beginning to design a course by articulating competencies was very valuable and hopefully will be used in my future course development. Analyzing evidence was a useful way to think about designing assessments, one part of the teaching process I have found difficult and unrewarding but necessary" (Open comments, fall 2002 survey).

"I like articulating competencies the best. I always have taught with outcomes/objectives in mind and would look for them in a textbook, which I would then use the one that matched the best. I now have changed my thinking in that I will design the course with the competencies in mind and not really worry about a textbook. I think in the distance format I will not rely on a book as I do in a face-to-face course. I will find supporting material on the web and add supplemental readings" (Open comments, spring 2003 survey).

"Articulating competencies and analyzing evidence were definitely most helpful to me. Articulating competencies helped me identify sources of tension in my teaching. I've been trying to make my courses more centered on student learning for several years and have made superficial changes, rather than deep or structural changes in my teaching style. If I begin course planning by spelling out the competencies I want students to master, I am hoping I can put to rest the need to cover as much content as I can in a semester. I think that analyzing evidence of mastery according to different points on the expert-novice continuum will help me evaluate student work more confidently. If I distribute the criteria for different degrees of mastery, students can assess their work as they are preparing it and can ask for help to improve mastery early on instead of finding out after their work is finished and graded" (Open comments, summer 2003 survey).

The backward design concept was the second most popular concept identified by participants as useful. It appears that for workshop participants it made sense that after identifying competencies and evidence of competencies, they needed an approach to structure an online course. Open commentary across the workshops substantiated this view:

"It makes sense to design the course from the back to the front. I am reminded of the way my mother solved mazes. She would start at the 'END' and follow the line back to the 'START.' I'm sure with more time to reflect, I could find some other items to discuss, but overall, I would say that my teaching approach has changed for the good and will remain so" (Open comments, fall 2002 survey).

"The backward design process is a 'keeper.' It is practical and useful and satisfies many requirements for instruction: It's interesting, it has much utility with 'adult' and non-traditional students because it does emphasize achievement of competencies" (Open comments, spring 2003 survey).

"[The] backward design concept was most useful to me since I have never approached the design of my courses with this in mind. It has given me a whole new approach and way of thinking as I design future coursework and apply it to existing courses" (Open comments, summer 2003 survey).

Production planning ranked third in the analysis of open commentary across workshops. Participants appeared to appreciate this concept because they saw the value of a systems approach for planning and putting all the pieces together. Another apparent reason was the fact that participants did not have much experience in this area and learned more about planning an online course, using media, and the value of working with a team. Open comments across workshops reflected these views:

> "Rather, it was the discipline of a 'systems' approach to course design that required me to perform this task in a structured manner with a documented output. Production planning was beneficial in that it makes it very clear that an online course design is not a one-person task. Defining the individual tasks that create the 'whole' is an absolutely essential requirement in OL course design. In summary. it is my opinion that the disciplined approach to 'course design' is what effectively ties together CADE concepts" (Open comments, fall 2002 survey).

> "Planning the instructional experience was the most helpful. Putting together all the information into a logical sequence was helpful and enlightening" (Open comments, spring 2003 survey).

> "I was anxious to learn about all the media capabilities that are possible but was worried about how I was going to learn how to create all these media elements. I learned that I am not expected to learn how to create media—that I have media consultants who are skilled in these areas. I also learned that simple media, such as using pictures to enhance lecture content, can be the best use of media for my students. And that type of media I CAN create!" (Open comments, spring 2003 survey).

Finally, an important realization found common across workshops was the notion that CADE concepts as a whole, although designed to support development of online courses, can be fully applicable to designing face-to-face courses as well. Survey respondents indicated, "CADE concepts are equally appropriate for [online] and [face-to-face] teaching." To this end, respondents acknowledged the profound impact of workshop participation on their overall perspectives about the value and benefits of the CADE workshop. Below are sample comments:

> "I believe it [participation in the CADE workshop] will forever change my philosophy and alter my methods in both traditional instruction and online instruction" (Open comments, fall 2002 survey).

> "The information presented in this workshop can be and is very useful for planning and designing any course, whether online or [face to face]. I have a more thoughtful approach to developing any course after experiencing these modules" (Open comments, fall 2002 survey).

> "I learned from all three areas, and they built on each other. I am not sure that this workshop is just for online strategies. I think it was an excellent review of teaching learning strategies in general and how to adapt these to any environment to meet the students needs and the objectives of the course taught" (Open comments, spring 2003 survey).

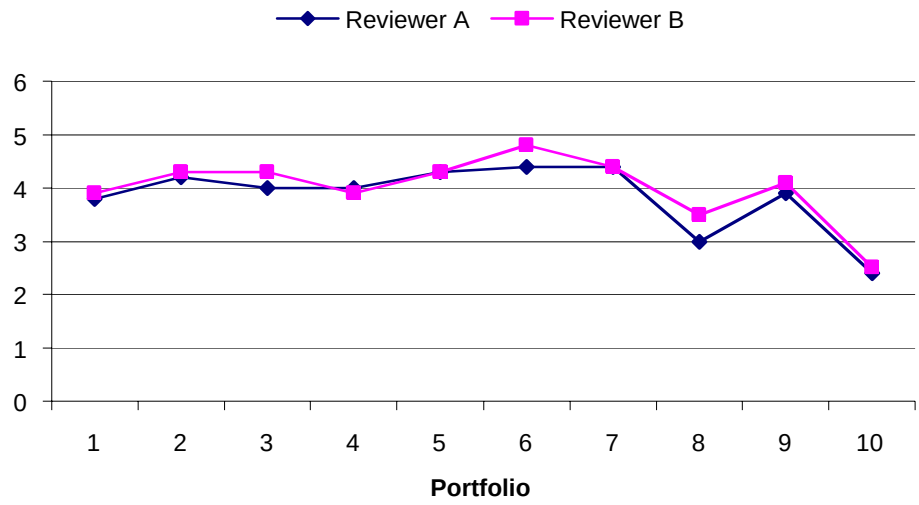
"I definitively will apply the same concepts and ideas in my face-to-face curses in order to improve the learning experiences for the students" (Open comments, summer 2003 survey).

Learning Outcomes: Quality of Portfolio Materials

An expected outcome of workshop participation was the development of portfolio materials focusing on a unit/section of a potential online course. The notion was that by focusing on a unit/section of a course, participants would be able to develop in-depth understandings of the design process and complete it in a thorough fashion rather than dilute their work trying to complete an entire online course. During the spring and summer workshops, participants completed worksheets and accompanying narratives to formally document key areas of their design process. The quality of the resulting portfolio materials provided a proxy measure for gauging the extent of learning and applications related to online course design as a result of workshop participation.

A random sample of five sets of portfolio materials drawn from both the spring and summer 2003 workshops were reviewed by a team of two reviewers. The two reviewers were knowledgeable of workshop expectations, criteria for developing portfolio materials, and the design of the rating instrument. After reviewing three sets of portfolio materials independently, the team convened to ensure consistency in the review process and to compare ratings and notes about the reviewing process. The preliminary results indicated a high level of consistency in ratings, and the team proceeded to complete the review of all materials. Figure 2 presents the resulting average ratings by reviewer.

Figure 2. Average Portfolio Ratings by Reviewer.



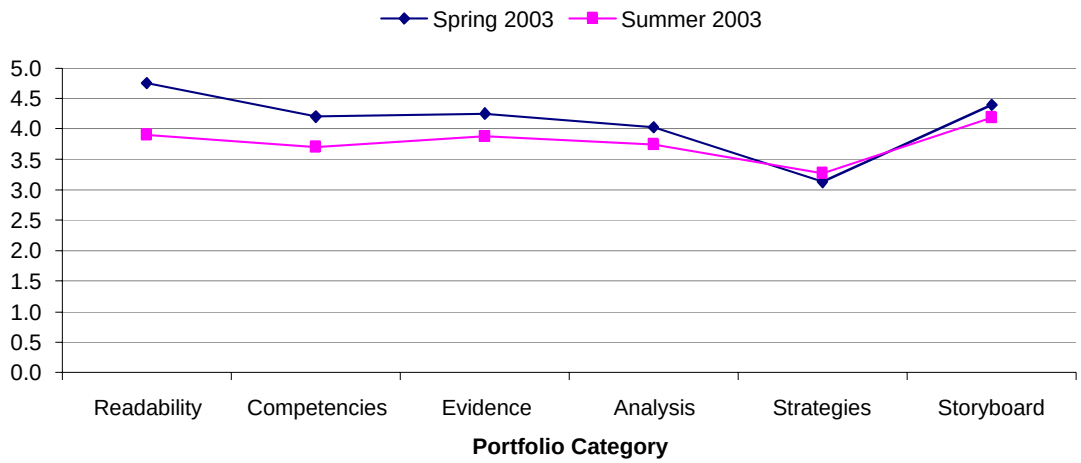
A visual inspection of Figure 2 shows that average reviewers' ratings were highly consistent across all sets of portfolio materials. In the cases where minor discrepancies were observed, the average reviewers' ratings still fell within the boundaries of the same rating level.

Quality Index

Figure 3 presents a visual display of ratings by portfolio category across workshops. On average, the quality of portfolio materials drawn from both workshops was rated as high. Figure 3 clearly indicates a similar pattern of quality across workshops and portfolio competencies. The only discrepancy in ratings was observed in the level of professional readability. Otherwise, categories of portfolio materials were rated similarly regardless of the workshop. Overall, the quality of individual portfolio categories ranged from intermediate to very high quality.

Professional Readability. This category was not explicitly identified as a portfolio category. However, it was found to be a common expectation across all portfolio categories, and there were specific criteria qualifying the level of expected readability. For this reason this category was added in the rating instrument and evaluated accordingly. This is the only category where portfolio materials from spring and summer workshops differed. The mean rating for materials drawn from the spring 2003 workshop was at the "very high quality" level (mean rating = 4.8), while materials from the summer 2003 workshop rated at the "high quality" level. The difference may be attributed to the significant participation of international faculty whose English is their second language. Overall, readability nevertheless was deemed high across workshops.

Figure 3. Quality Index of Portfolio Materials by Workshop.



Thinking About Competencies. This category gauged the extent to which participants were able to identify core competencies considered critical in an online course of interest. Overall, portfolio materials rated high in this category across workshops. With some variations in clarity and specificity, participants identified and described declarative content (e.g., facts, details, concepts, terminology), procedural knowledge (e.g., procedures, techniques, methods), and strategic knowledge targeting higher-order thinking skills.

Evidence of Student Mastery. This category was used to evaluate the extent to which participants were able to identify and describe evidence to attest whether students have mastered or achieved competencies guiding an online course. Overall, portfolio materials rated high in this category across workshops. In general, participants identified and described evidence of student thinking and behaviors serving as

indicators of student mastery of strategic knowledge guiding the online course. Also, participants were able to identify valid and reasonable indicators of student mastery for core strategic knowledge in their proposed courses.

Evidence Analysis. This category served as the basis for evaluating the extent to which participants were able to identify and describe assessment strategies, taking into consideration actions or behaviors representing different levels of performance (i.e., novice, recent graduate, expert). Overall, portfolio materials rated high in this category regardless of the workshop. In general, participants identified and described a worthwhile learning situation as the context for eliciting evidence of student mastery keyed to different levels of performance.

Instructional Strategies. This category helped evaluate the extent to which participants were able to identify and describe instructional strategies supporting a cognitive apprenticeship approach. These strategies included modeling, coaching, scaffolding, fading, reflection, articulation, and exploration. Overall, this is the only category that rated at the intermediate level of quality in both workshops. Due perhaps to the expanded body of knowledge regarding instructional strategies, terminology, and nuances in applications, the level of quality varied greatly across portfolio materials.

Storyboard. This category appeared to be straightforward and an area where participants seemed to have spent a great deal of time. An important workshop expectation was for participants to outline a storyboard and complete a media module to be used in a proposed online course. This category was used to evaluate the extent to which participants were able to meet the criteria for completion of the media module. Overall, portfolio materials rated high in this category regardless of the workshop. Participants were able to outline a media module with accompanying graphics and narrative.

Although the average quality of portfolio materials was deemed high across workshops, the review process yielded two important insights. First, it was evident in several cases that participating faculty were not able to put the same amount of time and effort in completing each of the portfolio worksheets. This resulted in differing quality within individual portfolios. This observation is supported by some comments voiced by participants. Second, the need for institutional incentives might be relevant to the completion of portfolio materials as well, since it involves a substantial investment in time and effort—which may require additional external motivation to stay on task.

Conclusions

Six conclusions emerged from the analysis of the theoretical framework supporting the workshop design, workshop materials, survey data, and review of portfolio materials. Two conclusions summarize the major findings resulting from the formative evaluation. Three conclusions align directly to evaluation questions guiding the summative evaluation. A final conclusion addresses implications for further improvements of the model.

Connecting Theory and Practice

The first conclusion addresses the connection between theory and practice: *The CADE workshop represents a sound application of educational theory to designing and implementing professional development for higher education faculty interested in developing online courses*. The primary goal of the CADE workshop is to help instructors rethink course design for online delivery. To accomplish this goal, the workshop focuses on student competencies and related mastery rather than the traditional content-based approach. The CADE model is guided by a backward design process, which focuses on the development of a course starting from the expected student competencies (McTighe & Wiggins, 1999). The notion is that identification of competencies allows for alignment between assessment, goals, content, and strategies. This notion is based on research on how people learn and is supported by the concept of cognitive apprenticeship for teaching and learning (Bransford, Brown, & Cocking, 1999; Brown, Collins, & Duguid, 1989). This concept predicates that novice learners can build progressive expertise facilitated by seven key teaching strategies: modeling, coaching, scaffolding, articulating, reflecting, exploring, and fading (Collins, Brown, & Newman, 1989; Hogan & Pressley, 1997; Kang & Byun, 2001). This concept is reinforced through an inquiry process to help participants reflect on teaching practices, implications for student understanding, and strategies to promote such understanding in an online course (Hacker, & Niederhauser, 2000; McTighe & Wiggins, 1999; Perkins, 1993).

The analysis of workshop materials, expectations, threaded discussions, participants' commentary, and portfolio materials clearly reflects a sound application of the theoretical framework. The workshop is organized around three phases of development. First, it requires participants to think about and articulate student competencies. Next, participants are required to identify and analyze evidence that demonstrates mastery of competencies. This is followed by identification of appropriate instructional activities and production planning that integrates the use of media as appropriate. Through this process workshop participants engage in general and targeted discussions to reflect on important design, instructional, and practical issues. The use of portfolio worksheets reinforces the effective application of the theoretical framework. As a result, workshop participants develop an appreciation for the theoretical concepts supporting the CADE model as suggested by survey commentary and threaded discussions. The review of portfolio materials provides additional evidence of the sound application of educational theory to designing and implementing professional development for faculty interested in developing online courses.

Implementing Continuous Improvement

The second conclusion refers to the formative process for continued improvement of the delivery model: *The CADE workshop followed a highly dynamic and successful process for continuous improvement of workshop design and delivery*. The documentation of design changes during both developmental and operational offerings of the workshop clearly supports the qualification of a dynamic process. Feedback from participants, evaluation results, and instructors' notes was thoroughly assessed and incorporated in each of the developmental and operational workshops. As a result, the duration of the workshops evolved into a twelve-week period (subsequently reduced to eight weeks beginning in summer 2003). Other important changes involved restructuring of the core workshop phases, more explicit treatment of educational concepts, and continuous refinement of the workshop's electronic interface. Supporting instructional materials and interface features were continuously

refined to make the workshop structures more user friendly and easier to navigate. Also, upon realization that participants were underestimating the time and level of effort required for participation in the workshops, the expectations for participation were clearly communicated through a written "contract" The contract included specification of time required for participating in workshop activities. Discussion forums were enhanced with guiding questions and specific guidelines for contributions. Portfolio worksheets were incorporated as well to help participants document their work during the workshop.

Based on the review of the workshop materials, interface structures, and survey data, it was obvious that design changes had a positive impact on the quality of the workshop and, in turn, on participants' satisfaction. The electronic site was progressively enhanced, and improvement issues were addressed appropriately and promptly. For example, in the initial workshops there was thick commentary about the following issues: confusion about educational terms, expectations for participation, and participation in discussion forums. Over time, and after developers and instructors addressed such issues, related commentary was reduced considerably. Judging by participants' feedback, some issues became irrelevant. Concurrently, an overwhelming majority of workshop participants progressively upgraded initial "good" ratings in fall 2002 to "very good" ratings in summer 2003.

Meeting Professional Development Needs

The third conclusion relates to participation rates in CADE workshops: *The CADE workshop met its goal of serving faculty from Jesuit colleges and universities interested in developing online courses*. Enrollment data and a review of background characteristics clearly support the claim that JesuitNET: (a) is serving faculty who need related professional development and, (b) is open to faculty in all Jesuit colleges and universities both national and international. Overall enrollment as of summer 2003 shows that faculty participation has been drawn from virtually all Jesuit colleges and universities in the United States. JesuitNET is also drawing participation from international Jesuit institutions (see Table 1).

JesuitNET has also served a relatively balanced group of both male (55 percent) and female (45 percent) faculty. Most importantly, a review of participation rates indicates that JesuitNET is meeting the professional development needs of faculty who can benefit the most from participation in CADE workshops. The majority of workshop participants (73 percent) are seasoned instructors (more than 6 years of teaching experience) who are most likely to be asked to develop online courses. Instructors in their first five years of tenure and those with no teaching experience are represented at significantly lower rates (20 and 7 percent, respectively). Concurrently, it is obvious that participants see the value of participating in a workshop specifically designed to help higher education faculty design and develop online courses. This is demonstrated by the fact that the majority of participants (68 percent) have already attended three or more workshops focusing on teaching methods, while only a small group reported no prior attendance in related workshops (7 percent) (see Table 2). Further, the majority of participants (57 percent) reported no previous online teaching experience, while the rest (43 percent) have taught at least one online course. Clearly, JesuitNET provided a needed professional development service to both experienced and novice faculty who may be interested in creating and/or redesigning online courses. Consistent positive commentary coming from faculty representing different levels of teaching experience, prior

attendance to related workshops, and online teaching experience supports this conclusion.

Meeting High Expectations for Workshop Participation

The fourth conclusion responds to a key evaluation question related to the quality of the CADE workshops: *The quality of the CADE workshops was consistently high and increased over time due perhaps to continuous improvements incorporated based on feedback from participants*. Based on survey data, including ratings on overall satisfaction and open commentary, there is enough evidence to support this conclusion. Across workshops there was a high level of satisfaction, which increased to a very high level by summer 2003. This trend appears related to improvements incorporated into the workshop delivery model as suggested by open commentary. In fall 2002 open commentary addressed several important issues related to potential improvements. As changes were made, related commentary diminished considerably and in some instances disappeared from the discussion (e.g., clarity of workshop expectations, duration of the workshop, treatment of educational concepts). Concurrently, the level of overall satisfaction with the workshop increased from predominantly "good" ratings in fall 2002 (59 percent) to primarily "very good" ratings in summer 2003 (73 percent).

A secondary source of evidence to support this conclusion was provided by data on the most useful concepts identified by participants. The concepts identified clearly aligned with the design framework underlying the CADE model: focus on student competencies, evidence and analysis of student mastery, the backward design process, and production planning. Most importantly, a key indicator of quality emerged in the form of a widespread realization that CADE concepts are equally applicable to designing both online and traditional face-to-face courses. Also, participants provided very positive feedback on workshop materials and, in particular, about the role and contribution of instructional staff. Likewise, the quality of discussion forums received overall positive ratings and showed that participants appreciated the role of both the large and small discussion forums. Frequent access (weekly) to large (81 percent overall) and small (57 percent overall) discussion groups demonstrated this trend. Although respondents wished for more consistent participation in discussion forums, they found discussions helpful, informative, and engaging.

Helping Faculty Rethink Online Course Development

The fifth conclusion emerged around another key evaluation question related to the impact of workshop participation on learning outcomes: *Participation in CADE workshops has a positive impact on learning outcomes as demonstrated by the high quality of portfolio materials produced by workshop participants*. The results of the review of portfolio materials support this conclusion. All in all, the level of quality was consistently high across workshops and across portfolio categories with the exception of instructional strategies, which was rated at the intermediate level of quality. These results may be because "competencies," "evidence of student mastery," analysis of evidence," and "storyboard" concepts—although hard to grasp in some cases—presented discrete ideas that were constantly reinforced throughout the workshops. By comparison, instructional strategies included a number of ideas that required an understanding of both conceptual fit and practical applications in the planning process. Further, since most instructional strategies represented new ideas to faculty with no formal pedagogical training, it is not surprising that this category rated at the intermediate level.

As expected, professional readability rated high across workshops. This category, found as an implicit common expectation, is an important expectation about the nature of portfolio materials. This became evident to some faculty who indicated that a course should be clearly and thoroughly written so that other colleagues, with minimal guessing on their part, may teach them if necessary. Other core categories, including "competencies," evidence of student mastery," "evidence analysis," and "storyboard," rated equally high across workshops. These results are consistent with participants' feedback reporting the same categories as the most useful concepts learned in the workshop. Overall, it was evident that portfolio materials represented building blocks for completion of high-quality online courses. The study of the implementation of resulting online courses was beyond the scope of this evaluation. However, this potential subsequent study is already seen as natural extension of workshop participation by some faculty, who wrote, "It will be fascinating to develop ways to implement [the resulting courses] in different environments [online and face-to-face] and compare their effectiveness in each teaching modality" (Open comments, summer 2003 workshop).

Implications for Further Improvement

The last conclusion highlights the potential nature of further improvements based on evaluation results: *Further improvement of the CADE model may require a new approach for implementation supported directly by individual Jesuit colleges and universities*. Certainly, there is always room for improvement in any educational endeavor. However, some issues can be directly addressed through concrete changes, while others may be harder to tackle unless the initial model is reconceptualized. For example, there is no doubt that structural changes (e.g., electronic interface) and instructional strategies (e.g., treatment of key educational concepts) can and will be further enhanced in subsequent workshops. However, improvements in other areas may be harder to accomplish. This may include commitment for consistent participation (e.g., completing the workshop, contributing to discussion groups), access to librarians and technology staff, and completion of portfolio materials. As is, in the open delivery model accessible to individual faculty interested in participating without institutional incentives and/or accountability systems in place, any improvements requiring increasing involvement of workshop participants are most likely to linger to a certain extent.

As suggested in open commentary, interviews, and by evaluation results, a different modality may be required to increase the nature and quality of participation in the CADE workshops. An alternative may be to offer the workshop to individual colleges/universities and/or departments whereby participation may be tied to institutional needs for online courses, incentives for participation (e.g., release time, use of portfolio materials to document quality of teaching in the tenure process), and provisions for accountability. Under this alternative, electronic interfaces may be customized for compatibility with available equipment and technology, contact with librarians and technology staff may be enhanced, time-on-task may also increase, and the quality of portfolio materials may improve as well.

In summary, based on evaluation results both formative and summative, JesuitNET has successfully designed and implemented the CADE workshops. JesuitNET has drawn participation from virtually all Jesuit colleges and universities in the United States and has begun to attract international participants. The CADE workshop has received very postive reviews by participating faculty, and it appears to be successful in promoting the design of high-quality online course materials.

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Appendixes

Appendix A: Summer 2003 CADE Workshop Outline

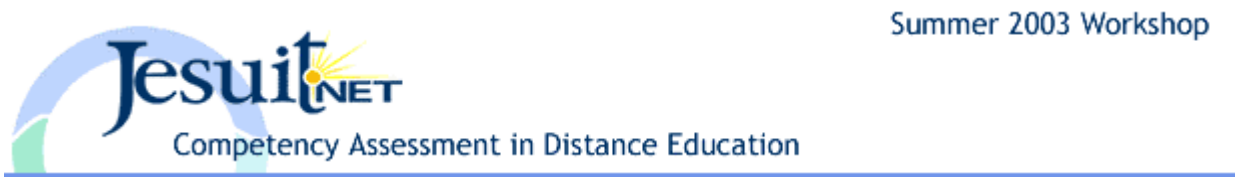
Appendix B: Survey Questionnaire

Appendix C: Rating Instrument

Appendix D: Data Tables

Appendix E: Open Comments.

Appendix A: Summer 2003 CADE Workshop Outline



The JesuitNET online course design workshop for faculty at Jesuit colleges and universities is being offered this summer in a single section of up to 15 participating faculty. This free and *entirely online* workshop will be led by experienced facilitators from JesuitNET and Georgetown University's Center for New Designs in Learning and Scholarship (CNDLS), as part of JesuitNET's Competency Assessment in Distance Education (CADE) Initiative.

The workshop will require about ninety hours of participant time over an intensive 8-week session from June 2 through July 27. A member of both the library and instructional technology staff will be available to assist their school's workshop faculty participant in course resources acquisitions, copyright clearances, multimedia selection, and related design services.

Workshop Participation Requirements

Faculty wishing to enroll in the summer 2003 workshop must be able to meet the following requirements:

- Personal commitment to using the CADE competency-based model and methodologies in their online course design.
- Personal commitment to working in an online asynchronous (anytime, anywhere) environment with scheduled deliverables over the 8-week workshop session.
- Agreement from a dean or appropriate campus administrator to provide sufficient resources for post-workshop course production and subsequent online course delivery to students.

Workshop participants should be able to fulfill all workshop requirements on schedule during the June 2 – July 27, 2003 time period. Those with greater than average professional (higher teaching loads, research and conferences, business travel) or personal (weddings, births, health care) responsibilities during this time are advised not to take the workshop. Those agreeing to these workshop requirements should discuss this document with their dean or appropriate campus administrator to ensure that sufficient institutional resources will be available for post-workshop course production and subsequent online course delivery to students.

CADE Course Design Approach

Working in close partnership with Georgetown University's Center for New Designs in Learning and Scholarship (CNDLS), the JesuitNET CADE team has developed an innovative instructional design workshop for developing competency-based courses. CADE-designed courses use a backward design process that develops a course from the goals for student learning ***backward*** to building the syllabus around instructional activities.

Many courses are developed with the primary emphasis on creating instructional tasks or activities, without an explicit emphasis on assessment or a clear sense of learning goals. The flow of the CADE backward design approach **from competencies to evidence to tasks**, however, makes the assessment of student competencies within designed tasks explicit from the start. This process organizes course design around three phases of development.

- The first phase identifies the specific set of **competencies** for students to master-- *What do faculty want students to know, understand, or be able to do?*
- The second phase identifies the **evidence** needed to indicate student mastery-- *How will faculty know if students have attained these competencies?*
- The third phase identifies the instructional **tasks** needed to reveal the evidence-- *How will faculty create an instructional environment in which students interact meaningfully with the content?*

In addition to the development of CADE-designed courses within the competencies to evidence to tasks process, the workshop offers two supporting methodologies to help faculty in the process of identifying evidence and designing tasks—**Evidence Analysis** and **Cognitive Apprenticeship**.

CADE workshop participants will develop courses based on the goals for the course and desired competencies for students to master *(i.e., What do I want students to know, understand, or be able to do?)* What evidence, then, will faculty have to determine student understanding? And how will they obtain that evidence?

By conducting an **Evidence Analysis**, faculty focus on understanding how people use knowledge to carry out their tasks. Evidence analysis helps faculty to think deeply about assessment, and to identify student performance and differentiate among various levels of performance. Many academic disciplines are characterized by two broad categories of knowledge--domain and strategic. ***Domain*** knowledge represents conceptual, factual and procedural knowledge inherent in a field. ***Strategic*** knowledge represents the higher-level thinking skills, processes and methods used by experts to solve problems. Evidence analysis is a method by which to make a distinction between the two types of knowledge and how to use them effectively in courses.

Once faculty are equipped with a deeper understanding of the evidence needed to attain competencies, they need to create meaningful learning environments for students. **Cognitive Apprenticeship** provides a framework for both teaching and learning based on the traditional notions of apprenticeship where the expert (or teacher) transfers knowledge to the novice (or student). Experts do not simply know more than novices, they approach a problem differently. This framework consists of seven key concepts—*modeling, coaching, scaffolding, fading, reflection, articulation, and exploration*--that help to translate face-to-face teaching practices to the online environment. CADE-designed courses will enable students to work within an environment where they are encouraged to develop skills and competencies at an expert level.

A short multimedia introduction to the workshop is available at http://www.jesuit.net by clicking on **Faculty** and then clicking on **CADE Intro**.

Workshop Objectives

The CADE workshop helps faculty rethink course design for the online environment. The workshop focuses on building a course based on student mastery of competencies rather than just on content. The pedagogically-based workshop allows faculty to reflect on how they teach in face-to-face classrooms, and how their practice and goals for student learning translate into the online environment. The workshop's process and flow begin with an inquiry into both faculty teaching and what student understanding means and how to recognize it online.

What the workshop is: This workshop offers an approach and set of tools (templates and worksheets) to facilitate the process of thinking about and developing an online course that is designed around competencies. The workshop materials are intended to adapt to faculty thinking and not the other way around.

What the workshop is not: This workshop is not a prescriptive, step-by-step program but rather a conceptual framework in which to think about design and assessment related to an online course. The workshop's intent is to introduce ways to rethink current practices and capitalize on what faculty do well and how that will translate online.

At the conclusion of the workshop, participating faculty should be able to say that they

- Saw the importance of teaching for understanding in the online environment
- Used new concepts and ideas to enhance knowledge about teaching and student learning within their disciplines
- Developed an understanding of the teacher as a facilitator of ideas and thinking processes
- Reflected more explicitly on teaching practice and student learning and the relationship between the two
- Conceptualized the design of one course using the CADE methodology
- Developed an understanding of the commitment and resources required to develop, produce and deliver an online course

Workshop Requirements

Portfolio Assignments: Each workshop participant will prepare a 15-page portfolio that consists of six worksheets and accompanying narratives, and a concluding Next Steps narrative. The completed portfolio will be a professional piece of online course design documentation. The portfolio will be developed throughout sessions 2 through 6, becoming a cumulatively more detailed document that is purposeful and useful at each stage of preparation. Completion of the portfolio's worksheets and narratives will reinforce the CADE design process, and provide an excellent building block for subsequent course production and implementation.

Discussions: A major workshop requirement will be active and ongoing participation in the workshop's two discussion spaces. While all discussions are asynchronous (anytime, anyplace), *each participant will average one discussion submission every other day—a total of 40-50 discussion documents over the eight-week workshop.* There will be two discussion spaces in the workshop:

The *Main Discussion Board* is used for topic and summative comments from the facilitator and participants (e.g., what they have learned, something that is useful to think about, something

they want to share). This board is the electronic equivalent of the normal give and take, Q and A in an on-campus course.

A *Group Discussion Board* is also available to participants. Within each workshop section, participants are grouped into 2-3 member working groups. Each working group has a discussion space and file-sharing area. The instructional technologist and librarian also has access to this board. The Group board primarily supports peer-reviews of group members' portfolio work.

Workshop Sessions

Session 1: Introduction to the Workshop (June 2 - 8)
The first week of the workshop is devoted to ensuring that participants have received their Net IDs and passwords, and that they are able to connect successfully to the Blackboard site. They begin using the Discussion Board to communicate with their workshop colleagues. Introduction objectives are to:

- Resolve any technological issues that might hinder your participation in the workshop
- Become familiar with the main features of the Blackboard learning environment
- Become familiar with the protocol for using the Discussion Board to communicate with colleagues

Session 2: Introduction to the CADE Methodology and Competencies (June 9 - 15)
In this session, participants are introduced to the CADE Methodology, a competency-based approach to course design. They also begin identifying competencies that they want students to develop in their online courses. Session 2 objectives are to:

- Develop a clear understanding of the CADE methodology: Competencies to Evidence to Tasks
- Understand the role of strategic knowledge in competency-based instruction and be able to identify the pedagogical concepts that form the basis of this methodology
- Be able to identify the major competencies for students to develop in the online course
- Establish a working relationship with the local campus instructional technologist and librarian

Session 3: Evidence of Student Mastery (June 16 - 29)
This session begins the Evidence Phase of the CADE methodology. In this phase participants focus on 1) identifying what they will accept as evidence of student mastery of the competencies; 2) the learning situation that will enable them to collect evidence; and 3) the characteristics of student behavior for three levels of mastery. Session 3 objectives are:

- In thinking about evidence, be able to identify a representative situation, problem, or case study in which students will most likely demonstrate mastery of competencies
- Be able to articulate the evidence that will indicate student mastery of the competencies
- Be able to articulate the characteristics of student behavior for three levels of mastery: novice, graduate, expert
- Be able to develop a competency-driven course outline

Session 4: Instructional Strategies and Course Design (June 30 – July 13)
This session is dedicated to thinking about course design--in particular the learning activities in the course and the strategies participants will use to teach their online courses. Session 4 objectives are:

- Be able to design learning activities which incorporate the instructional design strategies recommended in Cognitive Apprenticeship (CA), and which facilitate the development of higher-level thinking processes (strategic knowledge)
- Develop an understanding of how to apply the CA techniques when teaching online
- Be able to envision the use of various types of media in the design of online course activities

Session 5: Course Production (July 14 - 20)
This session focuses on the planning activities required for the production of media elements in participants' online courses. Session 5 objectives are:

- In collaboration with the local instructional technologist and librarian, be able to identify a detailed inventory of resources, tools and services, cost and requirements for developing the media components for the online course
- Have an understanding of the various types of media that can be used in an online course
- Develop a working knowledge of how to create a storyboard for a multimedia element

Session 6: Next Steps (July 21 - 27)
This final session reviews the contents of participants' portfolios, and discusses participants' plans for completing the development of their online courses. Session 6 objectives are:

- To understand what the next steps are for completing the development of the online course.

Appendix B: Survey Questionnaire

CADE Faculty Workshop Background

Thank you for taking the time to complete the CADE Faculty Workshop survey. It is being administered by the Center for Educational Technologies (CET), which is the JesuitNET evaluator. It should take about 15 minutes to complete. There are five brief sections to the survey. Press the Submit button when you have completed each section.

The CET will use your name to combine your survey results with other demographic information collected previously. After the CET has combined your information, your name will be converted to an id number so that your responses will remain confidential. If you have any questions, you may e-mail researchcf@cet.edu.

Name:

1. How many years of full-time or FT equivalent college/university teaching experience do you have? (Note: Five course sections taught = 1 FTE)

2. How many professional development workshops on teaching methods have you attended (either online or face-to-face)?

3. How many entirely online course sections have you taught?

4. What was your overall experience with the workshop? (very good, good, average, fair, poor)

5. What was the approximate total time (in hours) that you spent on ALL workshop-related activities?

6. Did the level of effort for the workshop match your expectation? (more effort than expected, about the level of effort expected, less effort than expected)

7. Would you change the workshop's duration? (Make the workshop shorter. Keep the workshop at 12 weeks. Make the workshop longer.)

8. How frequently did you contact your library support person during the workshop? (frequently—weekly, somewhat frequently—monthly, infrequently—a few times, not at all)

9. How frequently did you contact your instructional technology support person during the workshop? (frequently—weekly, somewhat frequently—monthly, infrequently—a few times, not at all)

10. Consider the various CADE concepts you studied during the workshop (articulating competencies, analyzing evidence, planning the instructional experience). In terms of your teaching practice, explain which concepts were most useful to you.

11. Consider the usefulness of these concepts in either online or face-to-face teaching. How have these workshop concepts changed the way you will think about and design courses?

12. How many times did you access the large group discussion forum? (frequently—weekly, somewhat frequently—monthly, infrequently—a few times, not at all)

13. How many times did you access the small, working group discussion forum? (frequently—weekly, somewhat frequently—monthly, infrequently—a few times, not at all)

14. Based on your experiences in the large and small group discussions, explain which area of communication was most helpful to you in understanding and applying the concepts of the workshop.

15. Please provide any other comments that you did not address in previous questions.

Appendix C
JesuitNET CADE Workshops: Evaluation of Portfolio Materials

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JesuitNET expectations for participation in CADE workshops follow a cognitive apprenticeship and understanding by design framework (Collins, Brown, & Newman, 1989; JesuitNET, 2002; McTighe & Wiggins, 1999). Expectations are scaffolded within a spiraling curriculum, increasing as the learner progresses through the workshop (Bransford, Brown, & Cocking, 2000). Evidence that workshop expectations were met was documented through a review of portfolio materials produced by workshop participants. Portfolio materials were documented beginning with the spring 2003 workshop. Consequently, related review and evaluation is restricted to the spring and summer 2003 workshops.

Categories. The evaluation of portfolio materials is organized into six categories aligned with portfolio worksheets (see Box 1). The category "professional readability" was included since it was found common to the core portfolio categories. Each category is characterized by a set of indicators that emerged from a review of criteria specified by workshop instructors, examples of high quality materials available to workshop participants, and supporting literature. To facilitate the review, indicators of quality for each category were linked where appropriate to a trail of instructors' criteria and/or expectations, examples used to help workshop participants complete the corresponding portfolio materials, and articles providing theoretical support to workshop ideas/expectations. This additional information should assist the reviewer in developing a full understanding of related criteria and expectations.

Box 1. Target Categories

- Professional Readability
- Thinking about Competencies
- Evidence of Student Mastery
- Evidence Analysis
- Instructional Strategies
- Storyboard

Rating Scale and Scoring. For each category in the rating instrument, three primary levels of quality—"very high," "intermediate," and "very low"—are considered. Two additional levels are identified for cases falling on the edges of the "intermediate" level. Scores range from one (very low) to five (very high) for each category. First, reviewers will check the extent to which individual indicators are met. Based on this review a rating will be assigned for the corresponding category. After adding scores from each category, the average rating will be estimated and used as an indicator of overall quality as shown in Box 2.

Box 2. Quality Index

- 4.6 Š 5.0 Very High Quality
- 3.6 Š 4.5 High Quality
- 2.6 Š 3.5 Intermediate Quality
- 1.6 Š 2.5 Low Quality
- 1.0 Š 1.5 Very Low Quality

Review Approach. The review is based on a random sample of portfolio materials from the spring and summer 2003 CADE workshops. Five sets of portfolio materials were drawn from each workshop. Each set of course materials is to be reviewed by a team of two reviewers who, upon completing their independent review, will meet to reconcile differences and agree upon a final rating based on available evidence identified in the analyses of materials.

1. Professional Readability

What is the level of professional readability exhibited by portfolio materials produced by CADE workshop participants? A key expectation common across all categories in the portfolio materials is that the completed portfolio should represent a professional and readable piece of online course design documentation.

Indicators of Quality

Very Low	***Intermediate***	***Very High***
❑ The portfolio materials are hard to read and follow. Statements are usually vague.	L I H	❑ The portfolio materials are readable (1, 2), very easy to follow. Statements are clear and concise with no ambiguity.
❑ An impersonal, passive style is typically used in the narrative.	L I H	❑ A conversational style is typically used in the narrative (1, 2).
❑ The narrative is riddled with grammatical problems and/or typos.	L I H	❑ The narrative is free of grammatical errors and/or typos.
❑ The narrative does not match the level of detail suggested by the example used to guide related work (1).	L I H	❑ The narrative matches or exceeds the level of detail suggested by the example used to guide related work (1).

Rating Scale for Extent of Quality (Check One)

Check Here √	**Rating**	**Descriptor**
	Very High	The material consistently and clearly meets all indicators for very high quality.
	High	This rating is for materials that look consistently high but do not quite meet all the indicators for "very high" quality. Reserve this rating for borderline cases.
	Intermediate	The material clearly features and meets a mix of indicators for high and low emphasis. The course materials clearly fall somewhere in between "high" and "low."
	Low	This rating is for materials that look consistently low but do not quite meet all the indicators for "very low" quality. Reserve this rating for borderline cases.
	Very Low	The material consistently and clearly meets all the indicators for very low quality.

2. Thinking About Competencies

To what extent do the portfolio materials clearly identify competencies considered seminal or critical to an online course of interest? The JesuitNET CADE workshops seek to help participants identify and articulate key understandings, ideas, and/or skills and their interrelationships to be emphasized in an online course.

Indicators of Quality

Very Low	*Intermediate*	*Very High*
❑ The material does not provide a clear idea of Level One content (facts, details, concepts, terminology) students will need to be familiar in the resulting course. The listing is sketchy and/or confusing.	L I H	❑ The material clearly identifies Level One content (facts, details, concepts, terminology) students will need to be familiar in the resulting course. The listing clearly emphasizes declarative content worthy of consideration (i.e., fine grain knowledge).
❑ The material does not provide a clear idea of Level Two content (procedures, techniques, methods) students will need to know how to use. The listing is sketchy and/or confusing.	L I H	❑ The material clearly identifies Level Two content (procedures, techniques, methods) students will need to know how to use. The listing clearly reflects a focus on important procedural knowledge.
❑ The material does not provide a clear idea of Level Three content (higher-order thinking skills) students will develop in the course. The listing is sketchy and/or confusing.	L I H	❑ The material clearly identifies Level Three content (higher-order thinking skills) students will develop in the course. The focus is on strategic (enduring) knowledge that builds upon broad ideas and understandings.
❑ Descriptions are inconsistent and ambiguous for each item listed in every level.	L I H	❑ Descriptions are consistently brief (single sentences) and concise for each item listed in every level.

Rating Scale for Extent of Quality (Check One)

Check Here √	Rating	Descriptor
	Very High	The material consistently and clearly meets all indicators for very high quality.
	High	This rating is for materials that look consistently high but do not quite meet all the indicators for "very high" quality. Reserve this rating for borderline cases.
	Intermediate	The material clearly features and meets a mix of indicators for high and low emphasis. The course materials clearly fall somewhere in between "high" and "low."
	Low	This rating is for materials that look consistently low but do not quite meet all the indicators for "very low" quality. Reserve this rating for borderline cases.
	Very Low	The material consistently and clearly meets all the indicators for very low quality.

3. Evidence of Student Mastery

To what extent do portfolio materials clearly identify evidence that students have mastered or achieved a particular competency? The JesuitNET CADE workshops seek to help participants identify and articulate evidence of student mastery for competencies considered strategic in a proposed online course.

Indicators of Quality

Very Low	*Intermediate*	*Very High*
❑ Only 2-3 strategic competencies (knowledge) are listed. There is no match with those identified in worksheet 2.	L I H	❑ All strategic competencies (knowledge) identified in worksheet 2 are included and clearly articulated.
❑ None of the competencies identified represent strategic knowledge students will get from the course.	L I H	❑ All competencies identified do represent strategic knowledge students will get from the course.
❑ Evidence of student thinking and behaviors that will indicate students have mastered skills are not clearly identified for all listed strategic knowledge.	L I H	❑ Evidence of student thinking and behaviors that will indicate students have mastered skills are clearly identified for all listed strategic knowledge.
❑ The evidence of student thinking and behaviors identified for each area of strategic knowledge does not involve valid and reasonable indicators.	L I H	❑ The evidence of student thinking and behaviors identified for each area of strategic knowledge appears to involve valid and reasonable indicators.

Rating Scale for Extent of Quality (Check One)

Check Here √	Rating	Descriptor
	Very High	The material consistently and clearly meets all indicators for very high quality.
	High	This rating is for materials that look consistently high but do not quite meet all the indicators for "very high" quality. Reserve this rating for borderline cases.
	Intermediate	The material clearly features and meets a mix of indicators for high and low emphasis. The course materials clearly fall somewhere in between "high" and "low."
	Low	This rating is for materials that look consistently low but do not quite meet all the indicators for "very low" quality. Reserve this rating for borderline cases.
	Very Low	The material consistently and clearly meets all the indicators for very low quality.

4. Evidence Analysis

To what extent do portfolio materials clearly describe assessment strategies to document potential performance? The JesuitNET CADE workshops seek to help participants identify and articulate assessment strategies built around learning situations with the potential to document actions or behaviors representing different levels of expected performance.

Indicators of Quality

Very Low	*Intermediate*	*Very High*
❑ The learning situation features a trivial activity in the course and is not clear in articulating the context for eliciting evidence of student mastery.	L I H	❑ The learning situation features an important problem in the course and clearly articulates the context for eliciting evidence of student mastery.
❑ The learning situation is not fully described, as it would appear in an assignment given to students. Details are at best sketchy below expectations set in case study example (1)	L I H	❑ The learning situation is fully described as it would appear in an assignment given to students, and matches or exceeds level of detail provided in case study example (1).
❑ The responses to all prompting questions are not clear in addressing what is being asked. No annotated items are included.	L I H	❑ The responses to all prompting questions clearly address what is being asked and includes one or two annotated items.
❑ The responses to all prompting questions are not clear in articulating expected differences in performance (expert, recent graduate, novice to the program).	L I H	❑ The responses to all prompting questions clearly articulate expected differences in performance (expert, recent graduate, novice to the program).

Rating Scale for Extent of Quality (Check One)

Check Here √	Rating	Descriptor
	Very High	The material consistently and clearly meets all indicators for very high quality.
	High	This rating is for materials that look consistently high but do not quite meet all the indicators for "very high" quality. Reserve this rating for borderline cases.
	Intermediate	The material clearly features and meets a mix of indicators for high and low emphasis. The course materials clearly fall somewhere in between "high" and "low."
	Low	This rating is for materials that look consistently low but do not quite meet all the indicators for "very low" quality. Reserve this rating for borderline cases.
	Very Low	The material consistently and clearly meets all the indicators for very

		low quality.

5. Instructional Strategies

To what extent do portfolio materials incorporate instructional strategies stemming from the Cognitive Apprenticeship approach to support teaching and learning activities? The JesuitNET CADE workshops seek to help participants identify and articulate instructional strategies appropriate for facilitating learning in a proposed online course (i.e., modeling, coaching, scaffolding, fading,, reflection, articulation, exploration).

Indicators of Quality

Very Low	*Intermediate*	*Very High*
❑ Describes applications for only 2-3 of the seven instructional strategies: modeling, coaching, scaffolding, fading, reflection, articulation, and exploration.	L I H	❑ Describes applications for each of the seven instructional strategies: modeling, coaching, scaffolding, fading, reflection, articulation, and exploration.
❑ An incorrect concept application is described for each of the seven instructional strategies.	L I H	❑ A correct concept application is described for each of the seven instructional strategies.
❑ Online tools used to facilitate an activity are not clearly identified or described for each of the seven instructional strategies.	L I H	❑ Online tools used to facilitate an activity are clearly identified and described for each of the seven instructional strategies.
❑ A brief justification for selection and use of specific tools is not available for each of the seven instructional strategies.	L I H	❑ A brief justification for selection and use of specific tools is described for each of the seven instructional strategies.

Rating Scale for Extent of Quality (Check One)

Check Here √	Rating	Descriptor
	Very High	The material consistently and clearly meets all indicators for very high quality.
	High	This rating is for materials that look consistently high but do not quite meet all the indicators for "very high" quality. Reserve this rating for borderline cases.
	Intermediate	The material clearly features and meets a mix of indicators for high and low emphasis. The course materials clearly fall somewhere in between "high" and "low."
	Low	This rating is for materials that look consistently low but do not quite meet all the indicators for "very low" quality. Reserve this rating for borderline cases.
	Very Low	The material consistently and clearly meets all the indicators for very low quality.

5. Storyboard

What is the quality of plans for using instructional technology? The JesuitNET CADE workshops seek to help participants identify and articulate strategies for effective use of media in a proposed online course. A key workshop expectation is for participants to outline a storyboard for a complete media module in a proposed online course.

Indicators of Quality

Very Low	*Intermediate*	*Very High*
❑ The worksheet does not cover a complete media segment/module (1).	L I H	❑ The worksheet covers a complete media segment/module (1).
❑ Frames (scenes) are not clearly identified by numbers or appropriate labels (1, 2, 3, 4).	L I H	❑ Frames (scenes) are clearly identified by numbers and appropriate labels (1, 2, 3, 4).
❑ Each frame does not contain an outline of an accompanying graphic (e.g., video) (1, 2, 3, 4).	L I H	❑ Each frame contains an outline of an accompanying graphic (e.g., video) (1, 2, 3, 4).
❑ Each scene and/or overlay is not fully described in the form of companion narrative/audio (1).	L I H	❑ Each scene and/or overlay is fully described in the form of companion narrative/audio (1).
❑ It is not clear how the module serves as a building block for course development (1).	L I H	❑ The module is clearly a building block for course development (1).

Rating Scale for Extent of Quality (Check One)

Check Here √	Rating	Descriptor
	Very High	The material consistently and clearly meets all indicators for very high quality.
	High	This rating is for materials that look consistently high but do not quite meet all the indicators for "very high" quality. Reserve this rating for borderline cases.
	Intermediate	The material clearly features and meets a mix of indicators for high and low emphasis. The course materials clearly fall somewhere in between "high" and "low."
	Low	This rating is for materials that look consistently low but do not quite meet all the indicators for "very low" quality. Reserve this rating for borderline cases.
	Very Low	The material consistently and clearly meets all the indicators for very low quality.

Appendix D: Data Tables

Fall 2002 Workshop

Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	8	61.5	61.5	61.5
Female	5	38.5	38.5	100
Total	13	100	100	

Workshops attended

	Frequency	Percent	Valid Percent	Cumulative Percent
No workshops attended	1	7.7	7.7	7.7
1 -2 Workshops	4	30.8	30.8	38.5
3-5 Workshops	5	38.5	38.5	76.9
6-25 Workshops	3	23.1	23.1	100
Total	13	100	100	

Courses taught online

	Frequency	Percent	Valid Percent	Cumulative Percent
No courses taught	6	46.2	46.2	46.2
1-2 Courses taught	5	38.5	38.5	84.6
3-5 Courses taught	1	7.7	7.7	92.3
6+ Courses taught	1	7.7	7.7	100
Total	13	100	100	

Years of teaching experience

	Frequency	Percent	Valid Percent	Cumulative Percent
1-5 Years	6	46.2	46.2	46.2
6-10 Years	2	15.4	15.4	61.5
10+ Years of teaching	5	38.5	38.5	100
Total	13	100	100	

Access to large discussion forum

	Frequency	Percent	Valid Percent	Cumulative Percent
Infrequently	2	15.4	16.7	16.7
Somewhat infrequently	1	7.7	8.3	25
Frequently	9	69.2	75	100
Total	12	92.3	100	
System	1	7.7		
Total	13	100		

Access to small discussion forum

	Frequency	Percent	Valid Percent	Cumulative Percent
Infrequently	4	30.8	33.3	33.3
Somewhat frequently	2	15.4	16.7	50
Frquently	6	46.2	50	100
Total	12	92.3	100	
System	1	7.7		
Total	13	100		

Contact with librarian

	Frequency	Percent	Valid Percent	Cumulative Percent
Not at all	6	46.2	50	50
Infrequently	4	30.8	33.3	83.3
Somewhat frequently	1	7.7	8.3	91.7
Frequently	1	7.7	8.3	100
Total	12	92.3	100	
System	1	7.7		
Total	13	100		

Contact with technology staff

	Frequency	Percent	Valid Percent	Cumulative Percent
Not at all	4	30.8	33.3	33.3
Infrequently	4	30.8	33.3	66.7
Somewhat frequently	1	7.7	8.3	75
Frequently	3	23.1	25	100
Total	12	92.3	100	
System	1	7.7		
Total	13	100		

Time spent on workshop activities

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 5 hrs/week	9	69.2	75	75
5-9 hrs/week	2	15.4	16.7	91.7
9-12 hrs/week	1	7.7	8.3	100
Total	12	92.3	100	
System	1	7.7		
Total	13	100		

Level of effort required

	Frequency	Percent	Valid Percent	Cumulative Percent
Less effort	2	15.4	16.7	16.7
About expected level	3	23.1	25	41.7
More than expected	7	53.8	58.3	100
Total	12	92.3	100	
System	1	7.7		
Total	13	100		

Perspectives on workshop duration

	Frequency	Percent	Valid Percent	Cumulative Percent
Make it shorter	5	38.5	45.5	45.5
Keep at 12 weeks	2	15.4	18.2	63.6
Make it longer	4	30.8	36.4	100
Total	11	84.6	100	
System	2	15.4		
Total	13	100		

Workshop satisfaction

	Frequency	Percent	Valid Percent	Cumulative Percent
Fair	3	23.1	25	25
Average	1	7.7	8.3	33.3
Good	7	53.8	58.3	91.7
Very Good	1	7.7	8.3	100
Total	12	92.3	100	
System	1	7.7		
Total	13	100		

Spring 2003 Workshop

Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	7	35	35	35
Female	13	65	65	100
Total	20	100	100	

Workshops attended

	Frequency	Percent	Valid Percent	Cumulative Percent
None attended	1	5	5	5
1-2 Attended	6	30	30	35
3-5 Workshops attended	6	30	30	65
6-10 Workshops attended	7	35	35	100
Total	20	100	100	

Courses taught online

	Frequency	Percent	Valid Percent	Cumulative Percent
No online courses taught	13	65	65	65
1-2 Online courses taught	2	10	10	75
3-5 Online Courses taught	3	15	15	90
6+ Online courses taught	2	10	10	100
Total	20	100	100	

Years of teaching experience

	Frequency	Percent	Valid Percent	Cumulative Percent
No teaching experience	3	15	15	15
1-5 Years of teaching experience	3	15	15	30
6-10 Years of teaching experience	4	20	20	50
More than 10 years of teaching experien	10	50	50	100
Total	20	100	100	

Access to large discussion forum

	Frequency	Percent	Valid Percent	Cumulative Percent
Somewhat frequently (monthly)	3	15	15	15
Frequently (weekly)	17	85	85	100
Total	20	100	100	

Access to small discussion forum

	Frequency	Percent	Valid Percent	Cumulative Percent
Not at all	2	10	10.5	10.5
Infrequently (a few times)	4	20	21.1	31.6
Somewhat frequently (monthly)	3	15	15.8	47.4
Frequently (weekly)	10	50	52.6	100
Total	19	95	100	
System	1	5		
Total	20	100		

Contact with librarian

	Frequency	Percent	Valid Percent	Cumulative Percent
Not at all	2	10	10	10
Infrequently (a few times)	13	65	65	75
Somewhat frequently (monthly)	3	15	15	90
Frequently (weekly)	2	10	10	100
Total	20	100	100	

Contact with technology staff

	Frequency	Percent	Valid Percent	Cumulative Percent
Not at all	2	10	10	10
Infrequently (a few times)	12	60	60	70
Somewhat frequently (monthly)	3	15	15	85
Frequently (weekly)	3	15	15	100
Total	20	100	100	

Time spent on workshop activities

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 5 hrs/week	7	35	38.9	38.9
5-9 hrs/week	8	40	44.4	83.3
9-12 hrs/week	2	10	11.1	94.4
12+ hrs/week	1	5	5.6	100
Total	18	90	100	
System	2	10		
Total	20	100		

Level of effort required

	Frequency	Percent	Valid Percent	Cumulative Percent
About the level of effort expected	6	30	30	30
More effort than expected	14	70	70	100
Total	20	100	100	

Perspectives on workshop duration

	Frequency	Percent	Valid Percent	Cumulative Percent
Make the workshop longer	3	15	15.8	15.8
Keep the workshop at 12 weeks	14	70	73.7	89.5
Make the workshop shorter	2	10	10.5	100
Total	19	95	100	
System	1	5		
Total	20	100		

Workshop satisfaction

	Frequency	Percent	Valid Percent	Cumulative Percent
Poor	1	5	5	5
Fair	1	5	5	10
Average	2	10	10	20
Good	6	30	30	50
Very Good	10	50	50	100
Total	20	100	100	

Summer 2003 Workshop

Workshops attended

	Frequency	Percent	Valid Percent	Cumulative Percent
No workhops attended	1	9.1	9.1	9.1
1-2 Workshops attended	1	9.1	9.1	18.2
3-5 Workshops attended	6	54.5	54.5	72.7
6+ Workshops attended	3	27.3	27.3	100
Total	11	100	100	

Courses taught online

	Frequency	Percent	Valid Percent	Cumulative Percent
No online courses taught	6	54.5	54.5	54.5
1-2 Online courses taught	2	18.2	18.2	72.7
3-5 Online courses taught	2	18.2	18.2	90.9
6+ Online courses taugh	1	9.1	9.1	100
Total	11	100	100	

Years of teaching experience

	Frequency	Percent	Valid Percent	Cumulative Percent
6-10 Years of teaching experience	2	18.2	18.2	18.2
10+ Years of teaching experience	9	81.8	81.8	100
Total	11	100	100	

Access to large discussion forum

	Frequency	Percent	Valid Percent	Cumulative Percent
Somewhat Frequently (monthly)	2	18.2	18.2	18.2
Frequently (weekly)	9	81.8	81.8	100
Total	11	100	100	

Access to small discussion forum

	Frequency	Percent	Valid Percent	Cumulative Percent
Infrequently (a few times)	1	9.1	9.1	9.1
Somewhat Frequently (monthly)	2	18.2	18.2	27.3
Frequently (weekly)	8	72.7	72.7	100
Total	11	100	100	

Contact with librarian

	Frequency	Percent	Valid Percent	Cumulative Percent
Not at all	2	18.2	20	20
Infrequently (a few times)	8	72.7	80	100
Total	10	90.9	100	
System	1	9.1		
Total	11	100		

Contact with technology staff

	Frequency	Percent	Valid Percent	Cumulative Percent
Not at all	2	18.2	20	20
Infrequently (a few times)	7	63.6	70	90
Frequently (weekly)	1	9.1	10	100
Total	10	90.9	100	
System	1	9.1		
Total	11	100		

Time spent on workshop activities

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 5 hrs/week	3	27.3	27.3	27.3
5-9 hrs/week	4	36.4	36.4	63.6
9-12 hrs/week	3	27.3	27.3	90.9
12+ hrs/week	1	9.1	9.1	100
Total	11	100	100	

Level of effort required

	Frequency	Percent	Valid Percent	Cumulative Percent
About the Level Expected	4	36.4	36.4	36.4
More than Expected	7	63.6	63.6	100
Total	11	100	100	

Perspectives on workshop duration

	Frequency	Percent	Valid Percent	Cumulative Percent
Make the Workshop Longer	2	18.2	22.2	22.2
Keep the Workshop at 12 Weeks	6	54.5	66.7	88.9
Make the Workshop Shorter	1	9.1	11.1	100
Total	9	81.8	100	
System	2	18.2		
Total	11	100		

Workshop satisfaction

	Frequency	Percent	Valid Percent	Cumulative Percent
Average	1	9.1	9.1	9.1
Good	2	18.2	18.2	27.3
Very Good	8	72.7	72.7	100
Total	11	100	100	

Appendix E: Survey Comments

Fall 2002 Workshop

Most Useful Area

Question: Based on these experiences, in the large and small working group discussions, explain which area of communication was most helpful to you in understanding and applying the concepts of the workshop.

"Those who participated in both the large and small group discussion helped me, and I learned from those participants. It's disappointing that not many students participated."

"Actually, the messages from Kathleen were the most helpful. I think the discussions could have been used differently. I got frustrated with my first group because not one of them participated in the discussions. I would post something and there was no response. It's as if they didn't know what to do. I have taken a number of online courses so I have used this medium before. I like it and I find it to be very useful for clarifying ideas, or providing jump off points. It did not achieve that in this workshop. In a rather ironic twist, I had the most online interaction with the members of my group all of whom teach at the same institution, and two of us are in the same department. Had the issue bee raised we could have talked about it in person, but we "talked" about it on line instead, because that's where it came up. I believe strongly in the use of discussion threads to enhance the learning experience."

"I felt this was the area that needs the most improvement. The course was not very discussion based at all and needed discussion topics using critical questions to engage the learners with each other in active learning. I didn't really experience this much at all."

"The large group discussions were more valuable because the small groups were too small and did not provide for a broadly based exchange of views/ideas/comments. I have no idea of what a minimum sized group should be, but it seems like six might be the lower limit. Also, there should be a size consideration for large groups. Not in this workshop, but in another OL course the group was so large that it was not possible to read and react/respond to each thread. Thus, too many presents as much of a problem as too few. From my experience with my mostly-OL course I know that 18 makes for a good forum. I am not sure that much more than 18 (say 30+) would work as well. A key to my being able to stay current in this course was the timely response to both my discussion board threads and emails from the instructor. Timely and effective communication between the instructor and the student is essential for a successful workshop/course. I would think groups that were too large would be a major threat to effective communications."

"This was a waist (sic) of my time!"

"The main discussion board was most helpful, but that's becuase there was so little participation by many of the participants. If we had had full participation, the smaller groups would likely have been better and the main discussion board would have been too chaotic. I think this is an example of how one must have several venues available. Things don't always go the way you anticipated - we teachers all know that, but it's still a disappointment."

"The large group because it was more active and the discussions more pertinent."

"Both areas were important, although I visited most frequently the small one. I did feel, however, that the direct feed-back from members was the most helpful, though."

“The small group discussions seemed to fade away after everyone started running late with their postings. Everyone seemed to go right to the main discussion board, so I found that to be most useful.”

“I found that the larger group sessions were more informative and engaging. However, I was disapppointed in the lack of interaction of the group members. There was little feedback and the level of formality didn't allow for the collegiality I expected. I didn't experience the same open learning environment experienced in other online courses.”

“Large group discussion. The number of participants was small--the small group discussions just were not used. No one ever responded to my comments on that section.”

“I don't think the discussion was structured well. It devolved into filling out worksheets.”

Other Comments

Question: Please provide other comments that you did not address in previous questions.

“The material covered in the textbook and articles was excellent---I'll be going back to those materials again and again. They were very helpful and written in a very user-friendly way. As a result of these readings and the worksheets, I'll be approaching course design in a much different way---hopefully, our courses will have a much higher quality and will have greater usefulness for our students. I was disappointed that some students did not participate much. I realize we all have lots of other demands on our time, but I felt as though I was floating out in space alone some of the time. Professor Rakestraw's contributions were very down-to-earth and humorous, which I appreciated. He gave feedback and responded to emails directed to him in a very timely manner. I also must add that I expected to 'see' him more in the discussions; he seemed to 'disappear' for as much as a week at a time, and that was puzzling to me. I also realize that so little 'presence' affected how hard I pushed myself. I didn't feel that I was being held accountable for the work of the course. At the same time, I acknowledge that it was a privilege for me to be able to take this course, and that although I didn't pay tuition for it, however, by applying for it, and being accepted, I made a commitment to participate. I found it very valuable to be on the 'student' end of an online course----first time for me. So that in itself was a very big learning experience. thanks!”

“I did not anticipate the workload. I don't know if there is a way to clarify it or not, the hazard is that people might back off. It would be nice if there were greater participation in the discussion threads. I was going to say match experience levels, but the more experienced of us have a responsibility to help those with less, so while frustrating, leave it mixed. I don't think the text was utilized enough. I found the text to be wonderful. It had so many issues that were ripe for discussion threads. This is what I meant when I said the book should be the focus of a first workshop, to set up the process and start people thinking about the CADE methodology, etc. As part of it people could work on the first part of course design. The second workshop would be the design part, and the last one would be the production process which we only touched on at the end. When the 3 workshops are done, a course should be in the can, as it were. I thought Kathleen did a really good job in providing feedback. I am the type that likes a quicker turn around. Perhaps setting up some ground rules about turn around would be helpful. Once I got the hang of it I was ok. I am not suggesting a 24/7 person, but if I know, up front, that the instructor will be on Tues. night and Sat night, I might not like it but at least I know. I learned a great deal, and I would be willing to try a second on another topic or an extension of this etc., perhaps even a discussion about the text material.”

“Having a few more weeks could enable a course design that we could demo at least to our small group. this would help a lot. Maybe you need to consider assigning some prework.”

“There needs to be a much better statement for the workshop participants of the amount of time and effort necessary to fully and effectively complete the 13-week program. This should include an estimate of the number of hours a week, a general description of the CADE design documentation required, and a statement that continuous week-to-week participation is essential for satisfactory performance. In my case, I found the work required far surpassed my ëexpectationsí. My guess is that it surpassed the expectations of many if not most of the participants who started the program. I say this because the ënose countí of participants starting the program is far larger than the finishing the program. Again, my guess is that the ëfinishersí may share a common characteristic ñ they are 'obsessive/compulsiveí individuals who are going to finish something that they started. So, they just got it done. But, you can not count on this is not your typical workshop participant! So, what to do? Better statement of ëexpectationsí for workshop participants ñ yes. Yet, I think other changes need to be made to make this very good experience even better. For starters, offer the workshop in two phases. Phase I (8-weeks) ñ up to production. Phase II (12 weeks) ñ production. Phase II ñ production is where I believe more time can be devoted to not just developing a production specification, but actually completing the production of audio/video, graphics, etc., for an instructional unit. The Phase I and II time estimates are only ëswagsí on my part and are intended to illustrate the need for more time devoted to production. Since I have not had an opportunity to work with a ëproduction teamí on an instructional unit, my sense of the time needed to do this could be way off. The CADE course design workshops can make a substantial contribution to the future quality of both OL and F2F programs ñ better courses, taught by more informed faculty. But, for this to happen, the faculty participation in the workshop need to have institutional support by way of release time for participation in the workshop and support to subsequently put CADE courses in place in OL and/or F2F classrooms. Without institutional support I am not sure the CADE program will ever achieve its true potential to improve the quality of student learning.”

“Some thoughts on the Jnet class and process. Before I begin I would like to say that while I may appear highly critical at times the overall experience and the material taught was exceptional. I also believe that the instructors are extremely knowledgeable in the subject. I also feel that the instructors had at all times a desire to improve the quality of education not only of workshop (Jnet class) but also of the participantís courses used in the process. So with that said some thoughts! My comments will focus on three areas within the course. 1) Communication with students and instructors. 2) The ability to participate in the course at any given time, and Course design and planning that affects the way a student can participate. 3) The blackboard design in education (a non-constructivist approach to education) or what I like to call old paradigm and new tools! (perhaps enough said!) Communication: In the beginning there was an emphasis on posting to discussion boards within the blackboard system. However, I felt that communication with other students was non-existent. Even when we were to post to ìGroupî discussion boards the only replies that I received were from the instructors. When I commented on this I was told to be persistent! I might has well have bought the book and read it with a single friend. I have no sense of who the other people in this course are. This was also affected by other problems that I will discuss next! It would also be helpful if the instructors Email worked! The Network and Participation. For four weeks our campus network was so impacted that I was unable to access the class from my office at (An unnamed university!). I would set aside time to participate in the class only to find that our network was down or running so slow that the multimedia presentations (also restricted on campus because IT claims streaming media is ìentertainmentî) would crash or just be a series of broken words and error messages. To combat this problem I purchased a T-Mobil Hot Spot account, this allowed me to access the Internet from the starbucks coffee house across from campus. While this was better and faster Internet service then I was

able to get on campus (Even when the network was working) leaving my office for an extended length of time presented other problems. However it was quite a bonding experience with other IT people and faculty to meet for coffee when the network was down! Some suggestions for the future that might help ï Have all class materials deliverable in advance of the start of the class in both a high and low bandwidth format. ï Having the material in advance would also make it possible to move forward at a faster pace when time allows, and to plan time more effectively. My original idea of putting aside TTH mornings proved to be a mistake, materials were not posted or the network was down. If I had all the material in advance many of these problems could have been overcome. ï The idea of the materials goes beyond even the traditional syllabus. I knew what material and topics were to be covered from the syllabus, this is true. However, I only had access in advance to the main text. Perhaps in the next iteration of this course that material (all readings and multimedia presentations) could be offered on a CD-ROM sent out to the participants. ï Adding a list-serve to the course would be helpful. An email list would allow students to participate in conversations without the cumbersome overhead imposed by the blackboard system. Also Email is something that most of us are familiar and comfortable with. Taking this a step further it might be good to ìRequireî participants to subscribe to some of the educational technology email lists sponsored by organizations such has AACE (Association for the Advancement of Computing in Education)."

"I really enjoyed the workshop. I felt as if I could not spend the time I needed to spend on it, but was surprised that others did even less! My semester was compounded by an unplanned for clinical assignment, and I was frustrated that my time was so constrained. That's why I suggested the course go longer. Under normal course workload circumstances, I think a semester is an adequate period of time for this workshop. I think we need another workshop that allows us to try out materials and get some feedback because I feel as if I am just beginning and will have many questions as I try to put this together next semester."

"I apologize that I was unable to devote the time necessary to complete all of the tasks in the workshop. I miscalculated how much time would be required and some circumstances in my day job developed prohibiting me from completing my work. I think with some minor adjustments this can become an excellent workshop. There were also some technical issues with the video streaming component that need to be addressed. Perhaps when the workshops are conducted locally this could be minimized."

"I very much appreciated being allowed to participate in this experience. I regret, and therefore appologize for, my lack of time to truly follow-through. However, I did learn important things, things that have "sunk in" and taken shape in my research on teaching and teaching itself. I am very grateful for your effort and think this course is great, both as an unvaluable online experience, as well as in terms of the literature and knowledge reviewed. Thank you very much."

"I learned to use the Blackboard function as a result of this course and was able to incorporate the Group pages into my classes THIS semester. I have not used Discussion Boards in my teaching so far, but now feel a little more comfortable trying them out next semester in my face-to-face classes. I started out this class with a few serious technological difficulties on my end, and that put me in a catch-up mode from day one. I found it difficult to catch up with the course as the semester moved on. I don't know if I am typical or not, but it seemed as if the course required so much weekly effort that it is difficult to keep up in the face of ones day to day responsibilities."

"I felt lost many times in the sessions and would have welcomed more direction and examples of what to do and not do to design an online course."

“Course needs a hands-on component where the student actually creates an online session. The methodology could be covered much faster--then talk about what works and what does not work online. Other than the fact that this course was online, it could have been targeted to the traditional classroom. The title seemed to indicate that the course would specifically address developing online courses. Kathleen was excellent in responding--wish I could have met her, even during a synchronous online discussion!”

“I think the workshop needs to be rethought from top to bottom. You have some good talent behind this workshop and I appreciate the work that went into it, but the main text was inappropriate for university faculty and many of the readings were either theoretically weak, outdated, or many fairly minor points. I don't have a strong view about how the workshop should be run, but working from the experience of faculty and with more advanced knowledge of their courses would be a good idea. There's a good deal less "theory" to promoting online learning than the workshop's curriculum supposes. Finally, the workshop is too much oriented to expensive media production without enough thought about the relative value of such production to learners.”

“I didn't find the workshop germane to the type of course I'm working to develop right now (Pharmacy Practice Law for pharmacy students). I can appreciate what the workshop intended but it just wasn't a good fit for what we are trying to do with this course. Thanks for inviting me, though. I have a positive impression of JesuitNet!! Merry Christmas!!”

Concepts Most Useful

Question: In terms of your teaching practice, explain which concept(s) was most useful to you.

“Cognitive Apprenticeship by far was the most useful, followed by articulating competencies and analyzing evidence.”

“I hate to sound this way but I would be hard pressed to name one. I found them all helpful and useful. Each has a place in the overall scheme of putting on a course, either online or in person. It's not that I didn't do these things but I never examined them in this manner, or with this intensity. Each is necessary as you move through the course at various times.”

“Backward design; essential concepts; your worksheets were invaluable.”

“The workshop experience of analyzing evidence was another beneficial exercise for me. It was beneficial, but not in the context that I was doing something new, or something I have not done regullarly for my courses. Rather, it was the discipline of a 'systems' approach to course design that required me to perform this task in a structured manner with a documented output. Production planning was beneficial in that it makes it very clear that an Online course design is not a one person task. Defining the individual tasks that create the 'whole' is an absolutely essential requiremenmt in OL course design. It is apparent to me that a fully OL course must have a design template that when implemented should be able to be taught by virtually any experiennce instructor in the field of study. This is an important realization for me because it is obvious that the mostly-OL course I now teach could not be easily (possibly not at all) taught by someone else. For my course to be fully-OL there would have to be a tighly designed course template for each instructional unit of the course. I do not have that now -- but, I have a good start with the documentation prepared in this workshop. In summary -- it is my opinion that the disciplined approach to 'course design' is what effectively ties together CADE concepts.”

“The CADE model was helpful, particularly looking at the individual cognitive apprenticeship elements and deciding what activities would fulfill that element. I also liked the activity of

"evidence". I am fairly behaviorally oriented as I establish end points for students, probably because of my field, but this really helped me and I hadn't really engaged in this activity before. I thought it was obvious, but it is not."

"I think thinking in terms of competencies was the most useful concept. Even though it's really the most important reason for s student to take the course, this is often not considered."

"The most important thing I learned was how difficult it is to fit in the time "in between" to devote to an on-line course. It is a very strong commitment, beyond a presence based course. This allowed me to better envision te importance of the stragegy of the methodology of an online course. The second most important thing, or concept, was that of competencies. It put words to intuitions I was having in regard to my own teaching, making things not only clearer, but also more discernible. This gave me the opportunity to plan better my programs and evaluations. The third most important thing was in regard to plan backwards, based on the results I wanted to get from my students. This also allowed me to plan better the courses and define the evaluations in a more precise way."

"Articulating competencies Analyzing evidence I found the competency notion very useful. At first I was a bit put off by the educational jargon, but upon reflection the idea of begining to design a course by articulating competencies was very valuable and hopefully will be used in my future course development. Analyzing evidence was a useful way to think about desiging assessments, one part of the teaching process I have found difficult and unrewarding but necessary."

"I found the first exercise in considering competencies the most useful. From that point I realize that all else is informed. It made a lot of sense to me to try to examine and analyze how students were to demonstrate the learnig outcomes I expected. I really could not envision the process of learning online so could not plan or design the actual course,as I had hoped to do. The entire workshop was very helpful in provoking thought about the process, but not as useful as a practical tool for development and implementation. I guess I wahted more explicit strategies to use in course design."

"Cognitive Apprenticeship Levels of Understanding Evidence Analysis."

"The "essential questions" and backward design concept was interesting."

Thinking About and Designing Courses

Question: Consider the usefulness of this concept in either online or face-to-face teaching. How was this workshop concept changed the way you will think about and design courses?

"These concepts have challenged me to think more critically and creatively about course design. I have to consider far more detailed and complex issues than just what I think might capture students' attention."

"It made me focus more on establishing realistic expectations. I found the statistic from the text about 50,000 to 100,000 hours of "study" for chess masters to become proficient. Yet, it seems that we (faculty) have expectations that the students will become proficient in far less time. The workshop reminded me of the need to link all the elements in the course, to maintain the logic, to have a plan other than the text, and to carry it through. It makes sense to design the course from the back to the front. I am reminded of the way my mother solved mazes. She would start at the "END" and follow the line back to the "START." I'm sure with more time to reflect, I could find some other items to discuss, but overall, I would say that my teaching approach has changed for the good and will remain so."

“definitely. the process of analysis in what I teach is mission critical.”

“The CADE concepts are equally appropriate for OL and F2F teaching. It not that one venue needs a structured and disciplined approach to course design and the other does not. In OL the need for a detailed course design specification, seems to me, to be an absolute necessity. The instructor does not have the liberty to make 'on-the-fly' decisions about what and how the course is going to be delivered next week or the week after. In the F2F classroon the instructor can work with a more loosely defined syllabus that provides flexibility to change course content from time to time. In an OL course, I do not believe this flexibility is feasible since the production of the course requires a more time consuming 'team effort'. On a more personal note, there is no question my exposure to a disciplined and structured approach to course design will be beneficial in how I prepare for my F2F classes and for my mostly-OL course (hopefully soon to be all-online). My regret is that I did not start my teaching career with a far better appreciation of course design. More than likely, many of my colleagues started teaching the same way I did -- "Here is the text for your course. We cover chapters 1 - 12. If you have any problems, let me know." The text typically provided the structure for the course design. And, the text generally had a 'knowledge' orientation that was suitable for preparation of classroom lectures. Now I have a better appreciation for ways to improve student learning through better course design. I wll be looking for ways to focus the students attention on developing competencies not just knowledge acquisition.”

“See above for contributions to how I think about course design. The CADE modle applies anywhere. The workshop also challenged me to think about how I would adapt each of the teaching design steps to an online environment.”

“I believe it will forever change my philosophy and alter my methods in both tradiitonal instruction and on-line instruction.”

“The time factor: This allowed me to better envision te importance of the stragegy of the methodology of an online course. Competencies: This gave me the opportunity to plan better my programs and evaluations. Planning backwards:This also allowed me to plan better the courses and define the evaluations in a more precise way.”

“I will by using the notion of competencies and evidence analysis in the design of my future courses. Competencies are a great way to design courses, and the thinking about evidence analysis will ecoourage some creativity and re-thinking of the assessment process. I plan on using these ideas immediately in a short course in international accounting I will be running in January.”

“The information presented in this workshop can be and is very useful for planning and designing any course, whether online or on ground. I have a more thoughtful approach to developing any course after experienceing these modules.”

“Provides a specific approach that I will use.”

“I think I'll post "essential questions" to my course site in the future.”

Spring 2003 Workshop

In terms of your teaching practice, explain which concepts were most useful to you

Competencies were very helpful in being able to determine the results of the course. Yes, what did I want the students to be able to do and to do well. Indeed, planning the educational experience and adding what I need to diverse the learning was important as well. What the CADE concepts taught me is how to organize me course with a different structure and to determine what I what to achieve with my course and further courses. Also, the articles and instructional tools for each lesson were also helpful in doing the class every week.

I felt there each of the areas had value, but planning the instructional experience (specifically the storyboard) was most valuable because it was the area I had the least experience in planning.

Planning the instructional experience was the most helpful. Putting together all the information into a logical sequence was helpful and enlightening.

Articulating competencies was very useful to me. While the profession of nursing has identified competencies that programs must meet, thinking about the "enduring understandings" that I truly want from my course gave new meaning to thinking about competencies. Analyzing evidence was a difficult concept for me in terms of really identifying the differences between novices, experts, and those in between. It was tedious to separate out the evidence for each, but it was a useful exercise. Planning the instructional experience was very interesting and useful. I was anxious to learn about all the media capabilities that are possible, but was worried about how I was going to learn how to create all these media elements. I learned that I am not expected to learn how to create media - that I have media consultants who are skilled in these areas. I also learned that simple media such as using pictures to enhance lecture content can be the best use of media for my students. And that type of media I CAN create!

The thing that was most useful to me was the evidence of student mastery. I had to think in a whole new way to understand how I was going to realize that students had acquired a particular skill. Until that point I had designed tutorials based on what I wanted students to know without looking at it from the point of view of what exercises will prove that students now know what I wanted them to learn. I also realized that in my design of the tutorials I had incorporated many of the aspects of the CADE concepts without realizing it. I had built in scaffolding with feedback for the students when they went wrong.

I learned from all three areas and they built on each other. I am not sure that this workshop is just for online strategies. I think it was an excellent review of teaching learning strategies in general and how to adapt these to any environment to meet the students needs and the objectives of the course taught.

The notion of developing goals (articulating competencies) was helpful in clarifying my intuitive practice and understanding some of the gaps that had developed between what I thought I was doing in the classroom and what I was actually asking of students.

All of the activities were quite useful. Perhaps the most helpful aspect of the course related to the analysis of evidence, as I work in a field (nursing) that has long emphasized consideration of competencies in planning coursework. However, prior to this undertaking, I had only conversational experience with translating the hoped-for competencies into learning experiences that could be evaluated at an end point to determine evidence of student mastery.

Articulating competencies. I have always taught my courses as outcomes oriented, but outcomes have not always stressed student competencies. The workshop was helpful in articulating student competencies.

Learning about cognitive apprenticeship was helpful. The articulation of competencies was painful but valuable.

Reading the text was most helpful and reading the comments from other participants.

The general concept of backward design. The breakdown of knowledge into essential, important and nice to know categories. The course design worksheet

Planning the instructional experience -would have like to have had more time outlining the technical parts of course planning.

All

The most useful aspect of CADE was using the portfolio document as a framework for planning and developing the instructional materials. I plan to develop future courses using this, or a modifiaction of this framework both to consistently develop the course and to document the course design process for communicating with the promotion and tenure committee.

I appreciated the materials that made an effort to articulate a theoretical foundation for the unique experience of distance learning. The early readings from "Understanding by Design" were helpful in this regard. They communicated a clear message that distance learning requires thinking anew about what specific competencies students are expected to develop as well as the specific learning activities which offer the most useful vehicles for that development. Finally, I found it very helpful to consider new and innovative ways for evaluating student growth and mastery.

I think that the "ariculating Competencies" and "analyzing evidence" aspects were closest to the "traditionla" experience. So, although they were useful, they were not "difficult". The "instructional experience" part is completely new. So, having to do this was most useful because it was something very different and challenging.

articulating competences and analyzing evidence were useful ... I enjoyed the readings provided

Identifying and analyzing evidence was the most difficult but also the most useful for me. I also appreciate the emphasis on putting knowledge to use, that is doing something with it that both demonstrates understanding and helps the things learned to be retained.

I like the articulating competencies the best. I always have taught with outcomes/objectives in mind and would look for them in a textbook. Which I would then use the one that matched the best. I now have changed my thinking in that I will design the course with the competencies in mind and not really worry about a textbook. I think in the distance format I will not relay on a book as I do in a face to face course. I will find supporting material on the web and add supplemental readings.

Reinforcement of what I believe is the correct way to procede.

Consider the usefulness of these concepts in either online or face-to-face teaching. How have these workshop concepts changed the way you will think about and design courses?

Definitely, I will have a better design for my course and realize now how much more I need to do. I will look for better ways to assess learning and to design group discussions. I have learned the importance of having a discussion board and facilitating the discussion a little better with small groups and assigned tasks.

Not how I will think about the course, but certainly using more additional resources - I have struggled to do it all on my own and I see how important it is to have a team of people working with you when using new technology.

The acutal designed has changed little. I have added notes for the power point presentation which in the past was done verbally. I also included more quizzes for the student to assess their knowledge. I really like and have developed rubrics for written work submitted in disucssion postings and in oral presenations. This has been very useful in clairifing to the students the desired level of written and oral responses.

The competencies for enduring understanding led to a shift in focus from lecture-driven to student-driven instructional activities. I am using very little lecture and lots more interactive assignments in the course I am designing. I plan to change my other courses the same way. I was beginning to move away from lecture-driven courses, but this workshop catapulted me forward in this movement

Knowing about the CADE concepts made me very careful when designing my most recent tutorial on plagiarism that I gave the students online tutoring. I showed examples of how to do things correctly as well as examples of what was wrong. Doing the course has made me understand more completely the different ways that an instructor can help students.

I think competencies will be with me for a long time in any course I design. Although we have always used competencies in my area, they have been viewed as negative, because in educational circles they seem to imply training rather than education. The framing of the concepts and vocabulary in this course will help me to continue with competency based education in a new light.

Yes--as above.

The "backwards design" process is a "keeper." It is practical and useful and satisfies many requirements for instruction: it's interesting, it has much utility with "adult" and non-traditional students because it does emphasize achievement of competencies.

Often I designed the course objectives around the text I was using. I don't think I will use a text for my on line courses. I will assigned specific readings/supplemental materials from the Web and other sources. i will need to work more closely with our Library staff to ensure I do not violate copy right. Some of my face to face courses will be redesigned keeping competencies in mind and not just objectives for outcome.

Yes, I will consider backwards design when I design a course.

Strategies for achieving deeper understanding and developing questions was most helpful.

They have made me think more in terms of competencies as opposed to information delivery.

Yes - how to consider assessment an experientail learning opportunity.

Yes

Yes. Previously, I have lumped course material based on large segments of time. Now, I will create smaller chunks that students can work on online a little bit at a time. Each chunk (or module) will be nearly fully complete within itself, so that a student has a definite start, stop, and outcome for each module, and can manage their progress in the course one module at a time. Face to face courses would roughly follow this modular format for planning class time and out of class work, too.

I think that considering competencies as the starting point for course design was especially helpful. It placed me in the student experience and forced me to move away from the question "What do I want to teach?". Eventually, I came back to that question but only after I had defined a course that was grounded in student goals and objectives.

Absolutley. I had thought before that teaching online was a matter of simply transfering my in class material to the web. I see now that in fact these are completely different teaching experiences! I am essentially having to learn how to teach all over again.

Made me be more concrete in my design

Yes, I have learned a lot about how to better design courses with the learning needs of the students in mind. It pays to be quite explicit and direct about the relationship between learning activities and course objectives

Yes. Stated so in the previous message.

Not at all

Based on your experiences in the large and small group discussions, explain which area of communication was most helpful to you in understanding and applying the concepts of the workshop

The course materials were very well organized and helped to have a good idea about the assignment for the week. Only, then could I comment on the material with substance. It was all about trying to understand the concepts individually but sharing the application in a group environment. Truly, the small groups were good but on the weeks that we did them I found it hard to keep checking for my group to begin. It happened to be on a week that I had more time and the larger group would have been more responsive. I did learn in the larger group to look for certain names and associations so that I could relate to nursing and appreciate some of the comments from the other participants.

That just depended on the content, rather than the size of group. I really enjoyed reading about the others experiences, even if I didn't respond. I plan to go back and take more time to read the input from other students this summer.

The area most helpful were the readings and the portfolio assignment. If the groups were subdivided into course related groups, such as health care or business, this may have made the dicussion more helpful.

We only participated in one small group discussion and I learned that having only 4 in a group can be a problem, especially when only 3 actually logged on and posted messages. The discussion can be too large also, but I did gain lots of information in all the discussions. I also learned that it was DIFFICULT to log on to meet the deadline for discussion every week. This made me understand why students often have difficulty meeting deadlines. I found myself relaxing the deadlines a bit in the two online courses I was teaching while taking this workshop.

I found the large group discussions more helpful than the small group discussions as my small group did not discuss much. I found it helpful to read the postings from other people to get their opinions on the topics being discussed that week. Sometimes the questions seemed daunting to me and it was helpful to read other people's answers before thinking up my own. Getting the photographs was also helpful as I find it easier to actually picture what people look like.

The diaglogue betweeen all of the participants was very helpful in the large group. I did not access others written work due to time.

Both were useful, although the small group discussions put more pressure on me to contribute (a good thing).

I derived equal value from both types of discussions.

Small group. We were better able to communicate. I often did not have time to read all of the classes responses. The small group was more managable.

The Discussion Questions helped me to understand the concepts.

Posting in the discussion session.

Not sure

All were very helpful

The large group discussion was very good, and let me learn the perspectives of all of the other participants. The small group forums, as far as I can tell, were set up only to collect portfolios when the digital drop box was too complicated. I thought it was intended as a forum for library/IT folks, but they don't really have a commitment to the workshop, they are just commited to supporting their faculty directly.

I was not able to take full advantage of this aspect of the course. Unexpected, complicated responsibilities stole much of the time that I had hoped to devote to this course.

I guess this comes under the "misery loves company" or "peer learning" catagory -- depending on your tolerance level. It was very useful to just read about others' experiences and to see how they were tackling the same issues I was.

The discussion element of the course was my only disappointment. I learned little from this. While I enjoyed the comments of my colleagues I did not find them very helpful for my work. Perhaps it would have been different if several persons were working on the same project.

I ended up always discussing with a few particular people. Partly because they were the ones who did the assignment about the same time I did, but also because I faound it easier to communicate with a smaller group, than the 25 or so in the workshop.

It was not.

Please provide any other comments that you did not address in previous questions

At times, I really liked the discussion format, especially if I had a question. I was not always able to be the first to respond to the discussion question of the week--and it was helpful to see how other participants would start the discussion. I appreciated the smaller group and being a participant in the group but I found it less stimulating to be in the smaller group discussion on the week.

In the future I would request posting of the assignments on Friday in order to do the work over the weekend. My first few days of the week are always swamped at work and it made it difficult to keep up.

I enjoyed the workshop and would recommend it to others.

It was a great workshop! A huge time commitment, but very worthwhile. Thanks!

I found the time limit very tight for the discussion sessions. Just getting the questions on Monday was often not enough time to provide responses by Wednesday. Sometimes the amount of reading that appeared on a Monday also seemed overwhelming. I was disappointed that so many people seemed to drop out of participating actively in the course.

Thank you for a great workshop. It was a lot of time and energy, but worth it.

The workshop was very well organized and obviously useful, but the amount of work required much more motivation than a free, non-credit course could elicit (from me) during a teaching semester. The workshop clearly can (and did) produce course outlines of great detail that would jump-start or greatly improve an online course. For me, the process was more closely structured than I was prepared for; I was seeking new ideas, alternative models, and help with some specific problems that had arisen in my online courses, rather than a detailed process for constructing a (new) course. Not that you all didn't warn me about what was going to happen--I was just hoping to find what I needed in what was available to me. The instructor, btw, was very knowledgeable, helpful and focused. And I appreciated her patience with attrits like myself.

Friendly online environment.

This is a demanding course. Problems with posting lead to much discouragement. This was great! I now know how students feel when they don't receive timely responses or when technology is not working properly. I am giving lots of thought as to how I might design an online course. Do I want to design an on line course?

I was unable to complete the work at the end of the workshop due to some unexpected family problems. Overall, however, I thought the workshop was well planned and conducted. I only have one suggestion that would have helped me deal more effectively with the work load. Assignments were announced weekly making it difficult to work ahead during opportunities when I had more time in my schedule. I would have prefered to have a listing of all reading assignments and projects available at the begining of class so that I could more effectveily plan around my busy schedule.

My experience is limited as was my involvement due to serious family issues. In addition I was not given the technology assistance which was agreed on before I was accepted into the course. These two factors, resulted in my droping out mid-course. However, until I had to withdraw, I found the workshop of high quality and very worthwhile. I truly regret not being able to finish. I do take quite a bit of knowledge with me, and intend to revisit the material during the summer and complete the portfolio for my own growth.

1. I was a but frustrated by the technical issues that arose related to multiple sections of the course - material in one section was linked from the section I was in, but I didn't have access to it. 2. The time from coordinator posting (typically Monday) to our expected posting (Wednesday) is too short, especially in light of the technical problems noted above and other time commitments of participants - If, hypothetically, I scheduled 8 hours days on Thursday, Friday, Saturday and Sunday (32 hours/week, well above the level expected) to work on the workshop, I would not be able to participate in the discussion as implemented because I would need to also participate sometime between Monday and Wednesday! I would recommend that all material be available for at least one week prior to expecting discussion of the material - this would enable participants to use the best day(s) of the week to get material and participate and maximize the use of weekend or whatever weekday is most flexible.

For me, this was a demanding course. The instructors clearly have devoted considerable effort in developing a thorough and challenging learning experience and I have been very impressed with the quality of the courswe, overall, and with the specific feedback from the instructor. The examples in the readings and other course materials were not as relevant to my area, however, I realize that it would be impossible to satisfy every possible particpant's specific interests.

I think that there should be a "follow up" session after about 1 semester. This would give us time to road test our courses and then reflect on this part of the development experience.

I regret that I was unable to complete the program ... it was a good opportunity for me.

I was at first frustrated because of some technical problems. Once these were resolved the experience was much more enjoyable. I can see though that some students might not be able to persist through such problems and they would probably not have the resources that I have had to iron things out. Overall, it was a very worthwhile experience a for me and I appreciate the work of Kathleen and other CADE folks very much. Thank you

Course was designed for people with little or no experience in these areas. I had been led to believe it had to do with innovative design and methodologies - saw very little of that.

Summer 2003 Workshop

Concepts Most Useful

I enjoyed the ideas that support teaching online from the student perspective. I will try to utilize the following concepts in both F2F and online course environments: 1) cognitive apprenticeship 2) developing student competencies 3) Integrating multimedia elements in a CADE approach 4) Developing and sustaining interactive ideas such as e-mail discussion groups and threads. 5) The hardest one for me to employ in a new way is to analyze evidence of student mastery of competency. I would like to move away from the standard exam approach.

Backward design concept was most useful to me since I have never approached the design of my courses with this in mind. It has given me a whole new approach and way of thinking as I design future course work and apply it to existing courses.

Articulating competencies and analyzing evidendes.

I think that the more useful concepts for me, are make the focus about the competencies, and close of that the effort for identify the evidence for verify affectivity of the learning process. Is important also the cognitive strategies, because is a set important for implement the Ignatian pedagogical proposed, for attaint a Education of quality and excellence.

All.

The concept of evidence of understanding. Until I spent time thinking about how I would know the students understood the content I hadn't really thought about whether my previous exercises revealed whether they really understood it. It became obvious that I was testing them without really making sure they understood the process.

For my teaching practice the most useful concepts were backward design, and the concepts of medeling, coaching, scaffolding, fading, reflection, articulation and exploration. Some of these terms are not completely new, the way of articulating them in a process of backward design which the competitions that try to be achieved are the start point that is the more relevant thing that I can indicate.

The concept of competency, The backward design framework, The types of knowledge (strategic and domain) The concept of expert The methodology of the cognitive apprenticeship framework

I think the concept of backward desing, and also thinking about competencies instead of "contents" was the mos useful for me. I also understand how to plan a distance learning course and the various options to develop the student assesment.

Articulating competencies and analyzing evidence were definitely most helpful to me. Articulating competencies helped me identify sources of tension in my teaching. I've been trying to make my courses more centered on student-learning for several years and have made superficial changes, rather than deep or structural changes in my teaching style. An example: I didn't rethink the content in my courses nor consider what student learning activities would mean for content coverage. I was forever adjusting the syllabus and frustrating students who wanted to know what we would be doing in the next class. In this workshop I realized I planned the course with content in mind, but delivered the course with students in mind. If I begin course planning by

spelling out the competencies I want students to master, I am hoping I can put to rest the need to cover as much content as I can in a semester. I think that analyzing evidence of mastery according to different points on the expert--novice continuum will help me evaluate student work more confidently. If I distribute the criteria for different degrees of mastery, students can assess their work as they are preparing it and can ask for help to improve mastery early on instead of finding out after their work is finished and graded.

The notion of a backwards course design (having desired competencies drive content and assessment) was especially useful

Thinking About and Designing Courses

Absolutely. Most of the concepts listed above apply to F2F courses also and I intend to use them. Indeed, it will be a fascinating experience to develop ways to implement them in the different environments and compare their effective in each teaching modality.

The concept of evidence of understanding. Until I spent time thinking about how I would know the students understood the content I hadn't really thought about whether my previous exercises revealed whether they really understood it. It became obvious that I was testing them without really making sure they understood the process.

For me Backward desig is a very new way to view the instructional design process. Now, I have a new alternative in either online or F2F design courses.

This workshop has changed my point of view of what is needed for to prepare a course online, is very important to count with a methodology and a scheme for developing the course, because we must to work previously with a detailed plan for the production of material and design of learning activities. That is very important for online courses because is not possible the improvisation and also is a best practice for face to face teaching.

Yes.

I think CADE and an online course require you to really consider the activities that will allow students to learn the competencies. You cannot just lecture, because the students will just sit there and read the lecture. They will not become engaged in the material and they will not learn it. Similarly, I am changing my face to face teaching to require more activities designed to have the students learn the material without me lecturing.

Any course that in the future i should develop, f2f or on-line it is from now differently for the way of raising the achievements that are claimed and the way of obtaining them. This workshop has been for me fundamentally for the design of my following courses.
The CADE methodology gives me insights on the concept of Competency and on the way of use it for building teaching methodologies. I know tools that allow me to effectively use this concept as the rail of pedagogical intentions. Second, I've changed my mind on the role of teachers and students in an on-line course. I discover opportunities that involve more humans' dimensions and faculties, helping not only for teaching but also for the integral formation of human beings. Finally, I've changed my mind on the role of media material in a course, and I understand better the difference between the problem of the educative media material development and the problem of technology-enhanced education.

I definively will apply the same concepts and ideas in my face to face curses in order to improme the learning experiencies for the students.

Definitely. I won't sit down to design a course with a stack of required texts as my guide. I'll start by creating a clear statement of the strategic competencies (content and skills) I want students to take away from the course and by describing the quality of evidence students must present to show they have mastered these competencies. I read an article in the last week or so about change in higher education. The author maintained that the kind of change needed won't happen until instructors change their understanding of teaching as conveying knowledge to students to teaching as creating problem-based learning opportunities for their students. That's quite a call to action. I think the concepts I've studied and used in this workshop help me understand student-centered learning and give me skills to make my courses more authentically centered on student learning, whether online or face-to-face.

I will focus much more on competencies and on appropriate evidence.

Most Useful Area

The large group discussions were more beneficial in that I tended to read and examine a wider range of feedback then with small group. I was not as keen on the smaller workshops since I found that I tended to defend my ideas rather than opening up to the possibilities that others presented. Nonetheless, I hope that the discussion group approach can be broadened and expanded.

I felt that the general discussion forums (large-group) were more helpful since it allowed me to feel a part of the "whole" group and made it feel more like a class. The working groups didn't work as well for me do to non-participation from some of the group members, making it difficult to feel as though we were accomplishing anything.

Cooperative work is very important in online courses. In this case, I could share my own experiencies with the group members, but the most important, with this process I could know the ideas of my classmates.

For me the two areas are important, that depend of the activities proposed, and Iím consider that is necessary to apply the two, although I think that is more easy to manage small groups.

small group discussion

The large group discussions were more helpful to my understanding. However, I don't think I really engaged with others in my class until I was forced to for the small-group discussion forum. This was done as part of an assignment.

The forums are a magnificent form of communication, maybe they did not work of small groups, I believe that it is necessary to insist more on the participation in these, sometimes it becomes a bit complex for that there are too many interventions of some and very few of others. I believe that the follow-up of these forums was one of few weak points of the course.

The small group is most helpful for understanding the concepts because you can get faster and direct answers to your questions, and you can have a most personal relationship with your partners.

My small group discussions were frustrating, especially the second one. My group began with three members, but two days before we were supposed to finish the group assignment, one member dropped out. The two of us joined another group that had two active members. We

exchanged many good ideas, but we didn't produce have the kind of interchange I associate with small group work. I had the role of group leader initially so some of this is my responsibility. It just occurred to me that I could have asked the members of my group to decide on a time when we would all be logged into the workshop and could read and respond to each other's ideas as they were posted. A better alternative would have been to ask Kathleen whether we could have access to the virtual classroom; that's an environment more conducive to group work, I think. The large group discussions were more helpful. As the workshop progress, each week I looked forward to reading what Kevin Bradshaw, Irene Good, Juan Carlos Gutierrez, and Miguel Lopez had to say. Each of them challenged and deepened how I applied the concepts we were learning. I usually grasp concepts easily, but applying them accurately is sometimes a challenge. So I appreciated the assistance I got. I appreciated the fresh perspective Miguel and Juan Carlos brought.

The larger group forum, but I found the discussions to ramble a bit and lose some focus.

Other Comments

Great course. I hope that you will follow up and keep in touch so that we can convey our progress and maybe even seek more guidance. Thanks

This workshop has been excellent. This is my 12 online course like a student, and I¥m sure that this one has been better than the others.

I has been the sensation of the final to workshop the participants has done signs of fatigue and we donít have an interaction sufficient for enrich to us of final conclusions. I think that a challenge for this form of course delivery.

Thank you. Enlightening experience.

It was to me an excellent experience for the teachers that we try to place courses On-line, especially considering that the workshop of 12 weeks was diminished to 8. Congratulations for the whole team of CADE-Jesuinet and I hope that we could do this extensive experience to AUSJAL, already there is a good number of interested in taking it in Spanish (and maybe in Portuguese) and share these experiences with more teachers of the Jesuits universities.

The CADE workshop is a very useful course that changes the concept of on-line education trough the involvement of the participants. It certainly touches important concepts and presents them in a practice way, and it is possible, in further courses, to discuss them deeper. The staff is very good, I admire Kathleen's capacity to answer to all the participants and promote discussions focusing in what matters. Materials and the structure of the workshop are adequate. This was a very meaningful experience as a teacher and as a researcher. I hope to be involved in similar future experiences.

I would like to thank Kathleen, Suzannah and Cindy for their support and help during the course. It was a special challenge for me because this is a very demandant course where we applied in depth concepts and because this is the first time I¥ve attended a course in a language different than mine. Jc

I appreciated being able to participate in this workshop. I learned some important ideas about course design, and I think my application of them will be helpful to my students. Kathleen was the perfect facilitator. She provided timely and insightful feedback on the worksheets. She also created an atmosphere that had been good for me, an atmosphere that allowed me to find

out more about the topics we were learning so I am more comfortable applying them to the portfolio assignments. I didn't finished my portfolio on time. I spent a lot of time reading more about the ideas that were introduced: constructivist teaching, scaffolding, problem-based learning, student-centered learning, especially. When I started the storyboard assignment, I realized that apart from "fade in", "close up', "fade out" I didn't have some of the vocabulary I needed, so I read a little in film study. I wrote, revised, and rewrote narration for different shots because it sounded so stilted and lecture-like. I didn't feel pressured to finish the portfolio on time and was prepared to ask Kathleen if she would provide feedback later, even though the workshop would be over. I will finish it in the next two weeks.

This was very helpful. Thanks.