Teaching Technical Writing Courses Online: Challenges and Strategies

Case study presentation at the 19th Annual Conference on Distance Teaching and Learning
Madison, WI, August 15, 2003

Presenters:  William V. Van Pelt, University of Wisconsin-Milwaukee (vanpelt@uwm.edu)
Matthias Jonas, University of Wisconsin-Milwaukee (mjonas@uwm.edu)

Overview
- Distance Learning in the Professional Writing Program (M)
- Literature Review of Online Learning (M)
- Technology Challenges (M)
- Course Goals (B)
- Student and Teacher Roles (B)
- Social Interaction (B)
- Sample Results (B)
- Conclusion (B)

BAOA program and graduate certificate
1. BAOA program
   - UW-System
   - First step: f2f on satellite campuses
   - Switch to B2B hybrid and online courses

2. Graduate Certificate
   - Courses Offered exclusively online
   - Three basic courses

Online learning differs from face-2-face
Moore and Kearsley, Hanna et al.
1. Teachers define:
   - course structure, goals, and facilitate the learning process
2. Students develop:
   - learning pathways within structured course materials
   - greater autonomy, freedom, and self-discipline

Social construct in online learning
Teheaux
Pro:
Technical writing courses are particularly well suited for online delivery because they involve regular writing and feedback.

Cons:
Loss of "the concept of 'learning' and the development of interpersonal skills through peer reviews" (368).

Key elements in an online technical communication learning environment
Leonhard
- Student online communication (email, chat room, discussion board)
- Active learning strategies (peer editing, discussion roles: facilitator, contributor, summarizer)
- Team-based student activities (group projects)
- Posting revisions for electronic peer review
If technology becomes a problem, learning does not take place!

Role as Project Assistant
1. Technology support: Link between course concept and technical implementation.
3. Technical Help Line for Students

Keep technology simple!
- Limit areas of course content and student interaction
- Using HTML documents
- PowerPoint audio lectures
  - Started with RealPresenter
  - Now Impatica
- Course CD-ROM

Course goals
Technical writing students should develop competencies in:
1. Audience and purpose
2. Writing and rhetoric
3. Social concerns and contexts
4. Technology skills & applications
5. Project management and research

Challenges
- Achieving learning outcome comparable to face-to-face learning
- Adapting to new roles in the new learning environment
- Avoiding technology as the primary learning problem (Paper markup, Online markup)
- Achieving successful social interaction among the course participants
- Engaging students in varied activities to overcome online anonymity and enliven collaboration

Peer Editing - Traditional

Peer Editing - Online

Figure 3: Crossed out
Collaborative learning

- Students develop personal and social interaction early in the course
- Discuss readings in online group forums
- Learn peer editing: respond to and use critical feedback in revising
- Conduct team assignments with well identified roles culminating in peer evaluations

Introduction posting - Anna

"Hi everybody!
My name is Anna, and I am a graduate student pursuing a degree and certification in Translation. I grew up in El Salvador and Spanish is my first language. I moved to the US in 1980. I'm a mother of very active 6 year old twin boys, and between school, work and family, don't have much free time in my hands! ...
"

Response from Tim

"I am glad to meet a fellow 'twin parent!' I have twin daughters who are eight months old; are they as much fun at six as they are as infants?"

Response from Anna

"Tim, if you think you're having fun now, just wait, it gets even better as they grow up. They come up with the cutest ideas! As they grow up though, since they are two, they tend to get in trouble a bit easier. ... Just to give you an idea, I found one boy inside the dryer and the other one was about to close the door!!! While I'm fighting out about that, I noticed they had a nice trail of soap going from the laundry room into the living room where in the couch they had created a small volcano made out of detergent!!! I can laugh about it now, but you often wonder how they come up with these ideas! ...I'll have to share more stories during the semester! Enjoy them. They grow up fast....."

Building on social interaction

Multiple avenues for interaction:
- Student - teacher interaction
- Student - project assistant
- Student - student
  - Email
  - Discussion forum for each assignment
  - Group project
  - Question and answer forum

Examples of interaction

- 79% of students preferred email exchange and online discussion forums as successful communication tools.
- Typical comments:
  - "I prefer email and BB postings because they allow for quick communication of ideas" and "I used email for private communication with the professor and used BB Discussion Board for general comments and thoughts."
Examples of interaction

- In one course of 12 students, instructor received 407 email messages; average of 35 emails per student in 13 weeks.
- In a face-to-face section of the same course, instructor received 85 emails; average of 9 emails per student in 16 weeks (9 students).

Consequences for online courses:
1. Much higher volume of written communication
2. More instructor and student time to communicate
3. Precision of the communication increases

Online discussion postings

- Personal introduction: 58
- Profile as a writer: 83
- Instructions for users: 79
- Educational Web site: 101
- Question & Answer forum: 86
- Discussion Groups (4 groups): 168
- Total: 575
- Per student: 48

Question & Answer (Q&A)

- One of the surprises in the course
- Students posted 86 messages to Q&A forum, averaging 7 postings for every student
- Students voluntarily posted to Q&A forum
- Students advised each other on technological, research, writing, and procedural matters
- Emulated professional writing exchange you would expect in the workplace

Student feedback

Critical feedback (student comments):
- Assignments were hard without supervision and guidance
- Grades were not regularly updated
- Other students not turning in their assignments was irritating

Student feedback

Students did not feel lost or alone in the online environment.
- Easy to use and the information I needed was right there
- Features provide the “class-room” feel in a non-traditional class room course
- Allowed me to communicate with other students and the faculty all at once
- Instructions were very well written. Given the technical level of this course, some things were a little difficult, but the professor and peers helped each other out a lot.

Would you like to take an online course again?

Total for all three technical writing courses:

- Don’t know: 13%
- Not likely or No: 0%
- Probably: 16%
- Yes, definitely: 71%
Conclusion

1. Online technical writing courses can fulfill same goals as face-to-face courses.
2. Technology remains challenging and must be addressed.
3. Social interaction remains challenging and must be addressed.
4. Course preparation and teacher-student roles differ online.

Questions?

Core online technical writing courses at UW-Milwaukee

- Advanced Professional Writing
- Rhetoric, Writing, and Information Technology
- Advanced Project Management for Professional Writers

For more information about the Graduate Certificate go to: www.wcm.edu/techttech/ or see handout pages 6 to 8.
Graduate Certificate in Professional Writing and Communication

The following sections describe the program goals, program curriculum, required courses in English and Communication, and student admission.

Program Goals
The Graduate Certificate Program in Professional Writing and Communication is offered as a distance learning program only. Beginning in Fall 2002, the graduate program appeals to students beyond the BA level who seek professional training and education to advance their careers. The distance learning environment enables students to attend the classes and fulfill the coursework at a place and time of their own choice while continuing to work full time.

The program was jointly developed with the English Department's Professional Writing Program and the Communication Department, both of which have earned strong national and international reputations. The interdisciplinary program will require students to take courses from both the Communication Department and English Professional Writing Program.

The goal of the Program curriculum is to produce graduates with exceptionally strong writing and communication skills through the study of theory and practice in the following areas:
- Technical writing, information development, document design and evaluation
- Communication across organizations and technical operations
- Technical skills (including JavaScript, HTML, and SGML)
- User interface design and technical translation for diverse cultures
- Instructional development, professional training, and e-learning systems

In addition to these skills, students may develop specializations in a variety of other areas, such as the following:
- Project management and client requirements documentation
- Knowledge management and information development
- Web-based learning and technical documentation
- Technical communication management
- Web page design and Internet rhetoric
- Online help and tutorial systems
- Instructional development and design
- Usability testing and measurement

All courses in the program stress the ability to turn theory into practice, work in teams, manage tasks and projects, and analyze problems.

Program Curriculum and Requirements
To achieve the program goals, students will complete 15 credits of course work (five 3-credit courses) as full distance learning courses. Students have to achieve the following:
- Complete 9 credits in graduate English writing courses.
- Complete 6 credits in graduate courses in Communication.
- Earn an overall 3.0 grade point average or better in the courses that apply to the program.
**Required Courses in English, 9 credits**
The following courses will be offered every academic year as full distance education courses and serve as essential components of the professional writing program in English. Students in the program must take the three courses to graduate with the certificate.

**Advanced Professional Writing (English 708)**
This course is essential for developing students' professional writing skills, especially their ability to manage large and complex projects. Students in this course learn how to diagnose and solve their writing problems through an analysis and understanding of the writing process. Through audience analysis, organization, editing, and document design assignments, students also receive intensive review of their writing as well as exposure to both the theory and practice of technical communication. (3 credits)

**Rhetoric, Writing, and Information Technology (English 709)**
This course is an advanced workshop-seminar that combines the best principles of writing clear, concise prose with issues of designing user-centered documents for culturally diverse audiences. The course covers audience analysis, page design, integration of visuals, theories of modular and structured documentation, online documentation, help systems, Web-document design, instructional design, and usability. The course includes peer editing and collaborative projects in which students do research on issues, factors, and principles that will enable them to design Web sites for diverse clients. (3 credits)

**Advanced Project Management for Professional Writers (English 710)**
This course develops proficiency in project management. In particular, students learn strategies for analyzing client needs and rhetorical situations and applying that knowledge throughout a project's evolution to (1) establish realistic, context-sensitive goals for their projects, (2) establish and adhere closely to a realistic timeline, budget, and document plan, (3) identify and resolve obstacles that threaten project success, (4) design documents that fulfill goals and appeal to clients, reviewers, and end users, (3) conduct a variety of tests to evaluate whether early attempts have been successful, and (4) use test results to guide revision and editing decisions. The course focuses on rhetorical and task analysis, project planning and management, problem solving, usability testing, and revision. Throughout the course, students work both individually and collaboratively as they create, test, and revise original documents (such as flyers, manuals, brochures, and pamphlets) for actual clients, or as they analyze, test, and revise existing documents from professional contexts. (3 credits)

**Required Courses in Communication, 6 credits**
Students, in consultation with the Program Coordinator, will take 9 credits selected from the Communication courses listed below. The courses listed below will be offered regularly as full distance learning courses by the Communication Department. Students in the program must take two of the following courses to graduate with the certificate.

**Designing And Developing Communication Training Interventions (Communication 627)**
This course teaches theory and methods used in designing and developing communication training programs for profit and nonprofit organizations. Students will design and develop communication training materials. (3 credits)

**Managerial Communication (Communication 710)**
This course is designed for organizational communication practitioners. The course surveys the analytic and implementation skills necessary for effective management of communication processes. (3 credits)
Studies of Communication in Organizations (Communication 810)
This course surveys the theory and research on communication processes that constitute and maintain organizations. Topics include communication and networks, managerial hierarchy, power, and organizational culture. (3 credits)

Seminar in Mediated Communication (Communication 813)
This advanced course focuses on theory and research pertaining to relationships between human communication processes and interactive technologies. (3 credits)

Seminar in Small Group Communication (Communication 823)
This course examines the theory and current research in small group communication, including the methods, applications, and problems of small group communication. (3 credits)

Seminar in Programs of Adult Communication (Communication 827)
This course examines current and prospective avenues of communication offerings for adults. Focus on content of adult programs in the academic and non-academic community. (3 credits)

Student Admission
Students must complete a degree sufficient to qualify them for admission to the UWM Graduate School and meet the following requirements:
- Submit a portfolio of writing samples.
- Submit two letters of recommendation from persons knowledgeable about applicants recent academic or work experience.
- Submit a statement of purpose that identifies a knowledge of workplace or business operations or from basic coursework in business writing, technical writing, and communication at the undergraduate level.
- Demonstrate access to and operational knowledge of distance communication technology, including a PC or equivalent computer system with Internet access and other applications sufficient to participate in the program's on-line learning activities.

Contact Information
Contact Associate Professor William Van Pelt for more detailed information at vanpelt@uwm.edu or see the Web at www.uwm.edu/Dept/techcom.
References


