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**BOIP Study: C490 Seminar in Technical Communication**

**Introduction and Background**

The Best Online Instructional Practices (BOIP) study conducted by the Institute for Research and Assessment in Higher Education (IRAHE) at the University of Maryland University College (UMUC) focused on identifying processes of effective teaching and learning in the online environment. Based on identified practices, classroom research was conducted in an upper level capstone course in the Communication Studies program, C490 Seminar in Technical Communication.

In the first phase, faculty were asked to provide and recommend effective strategies in online teaching. Student course evaluation data were added and, in parallel with the faculty input, were analyzed to measure the effectiveness of the practices. In the second phase, selected faculty explored how they implemented the teaching practices. Phase three focused on the assessment of student learning outcomes and the implementation of effective teaching practices as identified in the BOIP study.

**Objectives of this Research**

This classroom research seeks to measure learning outcomes from the implementation of best instructional practices as well as measure the effectiveness of certain online teaching practices.

**Methods and Results**

A class assessment plan was created before the class started and presented to the BOIP research team at UMUC. The assessment plan followed the accepted assessment steps as provided in guidelines from UMUC's BOIP team. The steps are presented here.

## Steps in Assessment

1. Goals for the course and specific learning outcomes and objectives were developed, along with their indicators. Assessment strategies, tools, and techniques were developed. In this course, I used written research papers and presentations; individual conference participation; collaborative presentations, critiques, and summaries of conference presentations; a pre-test and final exam; and the creation of an electronic portfolio.

Assessment strategies, tools, and techniques were identified and associated with the specific learning outcomes. Rubrics and evaluation criteria were developed for all graded assignments and activities. A map was created to clarify the relationships between activities and learning objectives and their assessments. See Appendix A for a copy of the goals, learning outcomes/objectives, and assessment map.

2. A pre-course survey was administered to determine students' pre-course characteristics.
3. Next, a pre-test was given to students in the class to measure knowledge of the subject matter of the course before the course was started.

The pre-test consisted of three open-ended questions. The first two asked for information about what technical communicators do and what current issues face technical communicators. The third question was intended to probe what levels of understanding students have about document design. Since a prerequisite of the course is a class in writing, this question probes student understanding of rhetorical principles as they apply to technical writing. Student responses varied considerably. A table presenting the pre- and post-test scores is presented in Appendix E. Copies of the pre-test and final exam are included in Appendix B.

4. Several strategies were implemented in the course. These strategies include the following:
  - a. Course was logically and clearly organized – student comments indicated this as well as good online practice of constructing modules around thematic subjects.
  - b. Several feedback strategies were used – comments to students in the conference discussions; individual and group email to students; comments on assignments; two research assignments that received individual feedback.
  - c. Several interaction strategies were used – group work, group presentations, required responses to classmates, group summaries.
  - d. Course goals and objectives were identified and reiterated throughout the semester – comments by me pointing to course goals and objectives.

- e. Opportunities were provided for students to share experiences and apply new learning to their professional and personal goals, both in groups and in the general conference discussions.
  - f. Opportunities were provided for students to participate in creating course goals through conference presentations and facilitation of discussions. Student groups were tasked with researching topics beyond the assigned readings, presenting a mini-lecture with questions for discussion, and facilitating the ensuing discussion. A second group was tasked with summarizing the discussion, highlighting the main points, and making connections with the overall course.
5. Additionally, I kept a weekly journal and submitted my written reflections monthly. These journal entries and a summary of their contents appear in Appendix D.

## **General Commentary on Student Learning**

### Course Design and Organization Issues

In spite of the C490 class's being outdated and in dire need of a revision, I was able to create a sense of logic and order for the students. Giving them plenty of notice and information, along with a complete redesign of modules and module topics, I posted an explanation of how the course needed to be reorganized and revised. This helped to alleviate the constant confusion that the outdated class design reflects. Although I posted notes, pointed to the course overview and objectives, the revised course goals, the differences in the outdated modules and the new ones, some students still got lost, went to the course modules automatically, and tried to find the outdated textbook. Over the first two weeks, we managed to get the students turned in the same direction and we were on our way.

The original class modules were designed around the development of documentation, an out-dated concept given the level of professional writing courses in our Communication Studies program. Additionally, no textbooks had been ordered due to oversight by the Academic Director. I had the library link various book chapters and articles to the class. The new modules and topics seem to be so interesting to students that they were more intrigued than worried about the changes. Since I have taught so many courses in the technical writing area of our program, I was able to draw upon the learning from the various courses to make this seminar coherent, cohesive, and inclusive. Our C300 Communication Theory, a foundational course in our Communication Studies program, was especially useful to draw material from and to show how technical communication gets its foundation from theory, a concept that is not included in any other of the technical communication courses. It was especially rewarding to see how students were able to integrate their previous learning from communication theory and writing courses with some guidance.

Another design strategy I use that I believe is helpful is that I set up the modules for each week to be visible to students from the first or second week of class. My

thinking is that students can use the entire class layout as a way to plan for things to come. So many of our students have other obligations and many of our military students and families are constantly facing changes. This way, I am not forced to be the “monitor” and “reminder” of what they are expected to do. For me, that means I can focus on what they are actually writing. I understand that this is not the norm, but I have come to realize that since students work at different paces, having the entire course concept visible to them means they can be in charge of their learning pace.

### Participation and Interactivity

Participation is a big part of the grade in my class – 20 percent of the total grade. Participation called for mini-lectures, mini-essay responses, and two research reports in two conferences. I use a rubric called “Maintaining an A in Conference Participation” to guide students in this respect. See Appendix D for this rubric. I consider this an extremely important tool to encourage quality learning and have spent many semesters refining it for my classes.

Students took a few weeks to get very interactive with one another. Once we were underway, the interactivity picked up. Those who did not become interactive either dropped the class or ended up with failing grades. Two students in particular had difficulties checking in to the class and keeping up. These two international students did not seem to have the same “interactive culture” that our experienced students had. In fact, they seem to view the class as independent learning rather than as a group or interactive experience. In spite of my constantly emailing these students, they were slow to respond as they did not check their email very frequently and did not visit class very much. In fact, one student did not even have a current valid email address.

In spite of some issues with interactivity, the quality of the responses was exciting. While I would like to attribute this to having taken the time to develop a detailed rubric about how to maintain an A in conference participation, I think students learned from one another and shared their real-world experiences as well as their academic experiences. We cannot underestimate the significance of sharing experiences among the adult students.

Of course, the rubric helped to guide them. I asked students to develop a “conversational mini-essay” when they responded, i.e., the response should have a “thesis” and supporting evidence. That was the requirement for their primary response to the conference discussion and to one another. That seemed to work to improve the quality of responses but not suppress the social responses that are often necessary to build some class identity and sociability. I know some professors prefer to eliminate social responses, but I am not one to do that. However, it must be clearly stated that “evaluation” will be based on criteria that includes substantive responses. It’s always a fine balance to achieve. Chatty professors seem to inspire chatty classes.

Another strategy is to have assignments due in the conference at specific times during the week rather than wait until the end of the week for the deadline. I had deadlines of Wednesday, Thursday, and Friday at different times. This strategy was successful overall. Presenting students could get their discussions or papers posted, and then others could spend the remaining days of the week focused on participation and responses. Students were forced to read the directions each week when they realized that

there was not one due date Sunday night. This strategy forced students into the conferences much earlier and probably forced them to get work done earlier in the week.

Also, finding ways to give feedback that encourage continued improvement and participation is a fine art. I prefer to give feedback by making pointed comments about length, etc., but also asking more probing questions for students to answer. These questions give students a chance to “recover” when they have not achieved expected levels of engagement with the content. Students can also see where else their thinking could have gone and observers can be reassured that there are, indeed, standards for substantive responses. An additional form of feedback was my offer to help students with their drafts of their presentations. I offered to review them, make suggestions, and point them toward resources if they wanted extra help. Most students took advantage of this feedback and felt more confident of their presentations and papers.

### Assignments

The assignments that were most useful to students were the group presentations and the research conferences. In the group presentations, student groups were able to develop and present a mini-lecture on one to three topics and then facilitate discussion in the conferences. Although some students ended up having to complete the group assignment alone due to lack of participation by other group members, students commented on how much they learned by having to do the extensive research on the topic and then present. They also commented on how much they enjoyed being the teacher and setting the agenda. They felt much more knowledgeable by having to do the research themselves. A few commented that initially they were worried about not having a textbook, but realized how much they gained by having to do the research for themselves.

The second type of assignment that was successful was the research conference, of which there were two. The conferences were set up so that students could get a feel for what it was like to present their research [virtually, of course] at a conference. Students posted their research papers and then fielded questions from other students and myself about the research. I gave each paper an “evaluation” in the conference so that they could see how each paper was evaluated. The first research assignment was to provide some kind of historical perspective on some issue related to technical communication. The second research assignment was a “white paper.” Students were asked to view their research presentation as an expert presenting an opinion or guidance on some aspect of technical communication and critiquing the significance of some of our issues for technical communication. Most students did a fabulous job integrating their learning into their research and making it relevant for the practice of technical communicators.

On the other hand, the summaries seemed to be the least helpful and most disappointing assignments of all. Where I had envisioned the summaries as opportunities to critique the discussions and presentations and integrate the material into the ongoing content of the class, students viewed this assignment as one to “get through.” Summaries were too short and not very critical. They appear to have been done mostly as a duty and as an afterthought. In the future, I think I will have to reframe this assignment so that students see the importance of it. My purpose was to get the critiques, but also to have students continued engagement in the class even though they may not be the presenting

students. I will have to rethink this one. I know I could get a better “assignment” if I made up a detailed rubric for this assignment rather than just give guidance. However, now I’m asking whether I need to rethink my pedagogical reasons for this assignment. If I want continued engagement when most students are not responsible for presenting, then perhaps I can include “The Consultant’s Corner,” a special topic/case study where students can make contributions as groups or individuals while the presentation is going on.

### Portfolios

Portfolios were another assignment that I need to revise. Some of the portfolios were outstanding and online as I had hoped they would be. However, half the students did not know how to put their portfolio online in spite of the discussion of this topic, and I received portfolios in Word without even a sense of what a portfolio is. One mistake I made was to announce this up front, set up a technology conference where we could discuss it, and then have it due at the end of the class. I did not stress its importance soon enough and get students to begin the design of the portfolio soon enough. Next class, I will start this assignment within the first three weeks and have students start this portfolio assignment early. Because I dropped the ball on this one, some students ended up making this an add-on assignment. I do want them to experience the professional pride in having created or web-published something professional.

### Final Exam

The final exam was basically a repeat of the pre-test in another format. I asked students to identify and summarize the most important ideas from three areas that we discussed the term. Students who had been doing well in the ongoing conferences were able to do this quite easily and sound knowledgeable. They were able to explain why these ideas were significant to them. Students who had not been keeping up responded with superficially. Additionally, I phrased one of the questions in terms of how we should restructure the class and what worked/did not work this semester and should this be considered a writing class. I also asked them to identify a significant learning experience and their challenges and frustrations. Most identified the presentations as the best experience but the group dynamics the most frustrating. Most agreed that that the course met their needs. My most learned student, a freelance technical communicator, said he thought this was “certainly one of the best [learning experiences] at UMUC.” He commented that this course contributed a great deal to his professional growth, and that the readings, student interaction, and instructor critiques enabled a comprehensive learning process and facilitated retention. One of my international students who was most frustrated and did not do well commented that she could have used more direction from me and needed to be reminded when things were due. Since I set up the entire class to be visible from the first week onward, I assumed that this would be enough and that students could use the syllabus and read ahead to prepare.

## Summary and Conclusions

After “adjusting” for student experience, I believe the course was successful because of what I expected of my students, my clear explanations and evaluation criteria of what I needed from them and why, and my own style of communicating and interacting with them. I am a flexible, encouraging teacher who takes a personal interest in students. Also, I am teacher who looks at learning as developmental; thus, I give those who need it extra help, extra time, or extra opportunity to improve. Students responded well to the interesting topics in technical communication and, since the vast majority of them are majors in communication studies, they felt the topics were relevant. A few students, especially the international students, felt somewhat lost at the levels of autonomy and interdependence I was expecting. However, they were the students who did not check their emails regularly and were not routinely in the online class. There may have been other technology issues for these two students.

Although students in general agree that group work is a good thing, they are often disappointed in their peers’ commitment to group work. This is the most frustrating thing about having group work for them. It creates an unnecessary level of anxiety for them when it is assigned. I believe the expectations of group work caused two or three of the students to withdraw from the class. They seemed overwhelmed by the expectations of working in a group and of presenting mini-lectures and facilitating discussions. However, I would continue using group work because the class is a seminar and requires research and presentations.

I have to question the pedagogical rationale here. My notion is that students should be able to construct their assignments together and, in their groups, create new knowledge for them or new ways of looking at the materials. Students do not tend to collaborate on the learning, but divide up the work as they do in the office setting. That defeats my pedagogical purpose of “knowledge construction” by groups of students.

I would have liked to have a summary from BOIP’s survey of my students, assuming that the students did, indeed, take the survey. I felt as though I were working without important information by not knowing how many had taken the survey and what they had responded. I did a survey myself in the first week, as I always do, to establish what students know when they come to class.

I am not convinced that I have to remind students of what the learning objectives are in order for them to “get it.” However, I do have to have those learning objectives clearly integrated into the class design and implementation, discussion topics and questions, graded activities, and graded assignments. The learning objectives must be reflected all over the online class in all the activities and assignments and responses I give to students. Additionally, I have to have clear evaluation criteria for everything, criteria that hold expectations high and demonstrate to students how to reach those expectations.

Thank you for the opportunity to participate in this study. It was an excellent opportunity for me to examine my own teaching style and become more reflective about teaching and learning. I hope to continue with classroom research and feel I have a much better idea of how to accomplish this. Please let me know if you have questions or comments.



## APPENDIX A

### BOIP ASSESSMENT PLAN FOR C490 SEMINAR IN TECHNICAL COMMUNICATION

#### Steps in Assessment

##### 1. Develop GOALS for the course

This seminar is designed to provide technical communication students with an exposition of current issues and methods in technical communications, while providing them with the theoretical and practical foundations in information development and professional communication. This seminar helps students develop appropriate investigative techniques to meet the challenges of changing communication environments and new technologies. It will also help students to refine written and oral skills needed for professional communication in workplace and public environments. This seminar covers the professional activities of technical communicators in the workplace processes, techniques, technologies, principles and methodologies that guide rhetorical considerations of technical communication products.

##### 2. Specify expected OUTCOMES/OBJECTIVES and develop their indicators

- Discuss communication theory and how it applies to particular types of technical communication
- Apply concepts of verbal, visual, and multimedia design in technical communications
- Demonstrate a clear understanding of the respective processes, tools, and techniques that apply to technical communications
- Identify, examine, and address issues associated with communicating technical information to diverse audiences
- Identify and apply efficient techniques for independent and collaborative research on specialized issues in technical communications, including research that uses technology and fosters information literacy
- Explain legal and ethical implications of technical communications and how to produce technical communication that is ethically and legally responsible
- Identify and analyze intercultural issues relevant to technical communications and demonstrate skill in addressing them

##### 3. Identify Assessment Strategies/Tools/Techniques

A. Tools include:

1. Written research papers
2. Individual conference participation
3. Collaborative presentations, critiques, and summaries
4. Exams, i.e., pretest and final exam
5. Electronic portfolios

B. Rubrics or evaluation criteria developed for all graded assignments and activities.

## Map Assignments to Outcomes

Faculty name: Cynthia Whitesel						
Course (title and number): COMM 490 Seminar in Technical Communications						
Date this plan is completed: August 29, 2004						
	<b>Expected Learning outcome/objective:</b> <i>What should students be able to do after completing the course?</i>	<b>Assessment Tools:</b> <i>What exercises and assignments will insure that all students have the opportunity to learn this?</i>	<b>Mapping assessment to outcome:</b> <i>How and what will be used to assess how well students are learning?</i>	<b>When will assessment data be collected</b>	<b>How often will assessment data be collected?</b>	<b>Comments</b>
1	Discuss communication theory and how it applies to particular types of technical communication	Conference discussion; collaborative presentation; independent research	Rubrics or evaluation criteria for all graded activities	Weekly	Weekly; at end of term	
2	Apply concepts of verbal, visual, and multimedia design in technical communications	Electronic portfolios; individual / collaborative presentations	Rubrics or evaluation criteria	Weekly and at end of term	Weekly; Week 7 Research Conference; Week 15; and at end of term	
3	Demonstrate a clear understanding of the respective processes, tools, techniques, and research that apply to technical communications	Conference responses; research papers; electronic portfolios; critiques; summaries	Rubrics or evaluation criteria	Weekly and at end of term	Weekly; Week 7 Research Conference; Week 15; and at end of term	
4	Identify, examine, and address issues associated with communicating technical information to	Electronic portfolios; presentations; conference responses; critiques;	Rubrics or evaluation criteria	Weekly and at end of term	Weekly; Week 7 Research Conference; Week 15; and at end	

	diverse audiences	summaries			of term	
5	Identify and apply efficient techniques for independent and collaborative research on specialized issues in technical communications, including research that uses technology and fosters information literacy	Collaborative group presentations; electronic portfolios; research paper; White Paper	Rubrics or evaluation criteria	Weekly and at end of term	Weekly; Week 7 Research Conference; Week 15; and at end of term	
6	Explain legal and ethical implications of technical communications and how to produce technical communication that is ethically and legally responsible	Conference discussion; White Paper; research paper; group presentation; electronic portfolios	Rubrics or evaluation criteria	Week 6 specifically, weekly in discussions	Week 6 Conference;	
7	Identify and analyze intercultural issues relevant to technical communications and demonstrate skill in addressing them	Collaborative presentations; research papers; critiques; summaries	Rubrics or evaluation criteria	Weekly and at end of term	Weekly and at end of term	

<i>Group Project Assignments</i>	<i>Objectives/Outcomes</i>
<b>* Weekly Presentation of Topics and Discussion Facilitation by different groups</b>	<b>1 – 7</b>
<b>* Conference Summary - groups</b>	<b>1, 2, 4, 5, 7</b>
<i>Individual Project Assignments</i>	<i>Objectives/Outcomes</i>
<b>* Weekly responses/participation</b>	<b>1 - 7</b>
<b>* Research Paper</b>	<b>2 - 7</b>
<b>* White Paper</b>	<b>2 - 7</b>
<b>* Critiques</b>	<b>3, 4, 7</b>
<b>* Electronic Portfolios</b>	<b>1 - 7</b>
<b>* Final Exam</b>	<b>2 - 7</b>

## **APPENDIX B**

### **PRE-TEST AND FINAL EXAM**

**Pre-test and Final Exam are confidential.**

## APPENDIX C

### MAINTAINING AN A IN CONFERENCE PARTICIPATION

#### **Maintaining an A in Participation**

Everyone starts out with an A for conference participation. This is your class discussion area. It is not necessary for me to respond to each and every posting, nor is it necessary for you. However, quality participation is suggested.

This is what you must do to keep the A.

1. Respond in writing as required with comment and critique postings. Please use Standard English and check for grammar and punctuation errors. Many students construct their postings offline in Word in order to be able to revise.
2. Each question that I post, unless otherwise noted (e.g., I may ask you to select two out of three questions for response), should be carefully answered as though you are writing a conversational mini-essay. That means you need a thesis statement, topic sentences, major and minor supports, and supporting evidence. This requirement is to help you frame and articulate your thoughts and to prepare for both the midterm and final exams. Each student must write one carefully constructed response as noted of about 250 words, more or less, to my questions, unless otherwise noted.

Then, each student should select one other student to respond to, carefully planning your response to that student's response to the question. These are the two required conference participation responses. Any other responses to students' postings will be considered extra credit. While class discussion can be very helpful to students who are having difficulty with the material, many responses tend to be "social."

Since I expect all students to read all postings, I urge you to write your social response to the student via email, encouraging and showing support, rather than post in the conference – unless you have something that adds directly to the discussion. This is to help us manage the high number of responses we are sure to generate in the classroom discussion. Students should first try to select a response that has no previous student critique; if you select a response that has student critiques already, be prepared to include all responses. The nature of your responses should be to probe student responses, ask for more information through insightful questioning, make connections the student may have missed, and in any other way to further understanding of the content we are discussing.

3. Stay current and timely with your work. Inform me if you need to deviate from the schedule. I keep conferences open for at least one week after the due date of that conference so that discussion can continue for a bit. However, your first two responses (the one for my question and the one for another student) should be considered on time if it is posted within the dates of the conference as listed.

4. Be helpful and encouraging. If you see a fellow course member doing poorly, having trouble, or falling behind, offer a hand. Suggest that the student refer to a particular part of the reading, a website, or offer some insight into the theory to help the student make sense of the readings.

5. Your postings should demonstrate growth in:

- vocabulary, terminology, subject knowledge
- inquiry talents, being open to several options
- awareness of many sources of information
- ability to organize data, themes, ideas and slants
- clear, concise communication and grammar
- technology skills for searching and posting
- interaction and collaboration skills
- comprehensiveness and creativity in explanation
- synthesis of ideas, risk taking in your approach
- evaluation, critique and responding know-how
- integrity, timeliness, flexibility and helpfulness

6. I will not respond to each and every posting, but I will read each and every posting. I often do respond when I read especially good postings or especially poor postings, especially in the beginning weeks. Please do the same, noting what more a student can do to improve or noting what you have learned from an especially good response.

7. Criteria for content of responses:

A level-5 (A) response is limited enough to treat the question within the scope of a conversational mini-essay and is clear to the reader. It enters the dialogue of the discipline as reflected in the student's sources, and it does so at a level that shows synthesis and original thought. It neither exactly repeats any of the student's sources nor states the obvious, but makes references to the original sources and integrates them into a well constructed response. Discussion is posted early in the week so that others may have time to think about the response and respond to it.

A level-4 (B) response has the same qualities as a "5" response, but contains unnecessary information or wordiness or may have weaknesses in one or two other areas. It may show synthesis and/or analysis but perhaps only a little original thought. It may rely slightly too much on the readings for content. Discussion is posted late in the week, giving others little time to digest and respond.

A level-3 (C) response has many of the same qualities as a "4" response, but has one or two more weaknesses. It may rely heavily on the readings for content, repeat the original sources, and may show some analysis, but no synthesis. Discussion is posted late in the week, giving others little time to digest and respond.

A level-2 (D) response has the mere suggestion of addressing the question, may use application only, and/or reflects a less than adequate understanding of the question and readings. Discussion is posted on the weekend or at the last minute.

A level-1 (F) is no response or only one out of several responses. Discussion is posted late on the weekend at the last minute.

## APPENDIX D

### JOURNAL ENTRIES

#### August 30, 2004

I finished the Assessment Plan and had some questions about what strategies exactly I would be employing to see whether they work. Maybe I don't understand this research project exactly. I do think of setting up a research project by deciding what specifically I will test and then setting up the assessments and the class plan. Somehow, I must have missed some of this. I sent Husein a note, but I imagine he is pretty well tied up with Cassandra out on maternity leave. I feel confident that I can move this forward myself, but I am somewhat confused about exactly what strategies I will use specifically. It seems to me with that full list of "successful strategies" that the research design should target specifics. Otherwise, we've got so many influences that weaken the integrity of the project. But I will review the project materials and the Executive Summary to see whether I missed something or to decide which strategies will make sense.

#### September 6, 2004

This weekend I put the finishing touches on the class. After filling out the assessment plan, I focused on what assignments I had planned and how they contribute to the learning outcomes. This was a very useful exercise. Since I've been teaching for nearly 35 years, I do this anyway, but the exercise of focusing on it was so helpful.

My C490 class is outdated. The class is titled Seminar in Technical Communication and was conceived as a capstone course for the major. I developed it in 1997 and have never updated it. Our Communication Studies program was just getting started and we did not have nearly as many writing courses as we do now. Now, we are too heavy on the writing and C490 has had to be re-visioned continually. The Communication Studies program has not had a decent curriculum review for policy and direction, but we motor on.

We originally envisioned the class as a research class for students, but had one text on writing documentation. That text is over 12 years old; the class needs new texts, ones that reflect the theoretical approach to the course. I have been forced to use the library reserves, which are limited due to intellectual property limitations. Our online databases are not that well-equipped for the needs in technical writing. Our AD does not order texts in time. This situation always presents a problem for the students who are not technical communicators or majors in technical communication. The Learning Objectives are outdated and relate mostly to rhetorical considerations for document design. Therefore, I have rewritten them for the classes over the years to reflect the changing vision of the class. In addition to revising the learning objectives, I had to revise the content and organization of the course modules. My revised class better reflects the goals of the

capstone course as well as incorporating UMUC's various initiatives in technology and global issues.

One of the continuing issues for me is how to get the learning I want without inundating students with "stuff" to do. With an assessment plan, I can focus the work and justify its inclusion in the class planning. In the online classes, students' learning is not so obvious without the constant "writing," whether in the conference discussion or the writing assignments. I have to ask myself the questions about my role in the learning. Do students learn mostly by doing these activities? What do I contribute outside of designing and implementing the learning environment and then guiding them through the learning experience? It seems that may be enough. However, I am convinced that encouragement and a friendly, welcoming virtual presence supports those students who lack confidence in their skills and need to feel a supportive presence. Or perhaps a more conversational tone demystifies the abstract content.

As always, planning for my online classes spills over to my f2f classes. The detail involved in planning the learning environment online always has me thinking in the same terms when I enter my f2f classes. Planning for online classes has a kind of sanity to it because of the need to organize the learning experience up front for an entire semester. Being able to envision an entire course over 15 weeks is a skill that comes with practice and time. I don't think that most f2f classroom teachers necessarily develop it. The f2f classroom teachers seem to be focused on the more immediate issues of lesson planning for the current week. I always welcome a chance to reflect on classroom learning.

This is the smallest C490 class I have had to date – only 17 students. Usually, this class has 20 – 25 students. I wonder what this means in terms of interest. I believe this class is listed as meeting the upper level writing requirement, but its content is challenging for students who do not have much experience taking upper level communication studies. The class requires students to research on their own, think about the practice of technical communication, and discuss more abstract concepts than I suspect they are prepared to do. The most prepared are those who have taken most of the classes and/or have direct experience as technical writers or designers.

### **September 13, 2004**

I checked the class today to see how students did this week and to wrap up the week's discussion. Not everyone has completed the pre-test, so I sent a note to all asking them to complete the pre-test and be sure to complete the survey. Will the BOIP team let me know who did not complete the survey so I can send personal emails to them? I'll put a note in the announcements once again.

I copied into the wrap up commentary the list of learning outcomes. I asked them to note which objectives we may have achieved this week. In general, I wanted to set up the class activities so that each activity integrated several of the learning outcomes. This week, our topics for discussion were about who technical communicators are and what sorts of jobs they do. Students found classified ads for technical communicator positions and we

discussed them. Some jobs pay fairly well and that was a source of excitement for some students.

The class enrollment has dropped by 1 student; we're now at 16. I surveyed the class to see who are technical communicators or writers and who are not. Of the 15 students who responded, 12 are not technical communicators and 3 are. The course will be challenging for them. I suspect some of the non-technical communicators are majors in communication but have not taken more coursework or worked in the field – even though our prerequisites state they should have at least taken C393 Technical Writing or C394 Business Writing or some other upper level writing course. Only a few are academic seniors.

Group activities begin week after next. My plan is to introduce new “teaching strategies” each week and then to see how students respond to the strategies. I will keep my assessment plan on my desk so I can refer to it frequently as I work through the class.

### **September 19, 2004**

I ended the week with a wrap up that included correlating the learning objectives with the discussion and activities this week. I think the students can see this correlation. I know it matters to me that I do this. But I am not sure it matters to students. It seems that our online students continue to be very busy and tend to make their school work more reactive than reflective. However, this week, we had pretty good responses in the discussion, although not as many as I had hoped. Students tend to interpret their “requirements” in quite literal ways. Given that this class is a seminar, and I expect students to respond more fully and more maturely, I believe they must reach for their best.

I reviewed the pre-tests this week. Eight students out of sixteen students responded. Of those who responded, two had good scores. I can tell they are technical communicators. But their responses on questions 2 and 3 are not really very complete. They are still thinking like writers with classic rhetorical English training rather than like theorists. Their responses also tell me that they are really not aware of the traditions of technical communication, so this class should help them open new horizons. Their final results should be interesting. Six students did not really know what the questions meant. The consensus for question 1 is that technical communicators are fundamentally writers.

Some of the students have not even checked into class. I suspect that their absence has something to do with the fact that many students are taking this course because they are not communication majors and need an upper level writing course. They are looking for credits. Although we do have one writing prerequisite for the course, I usually see unprepared students in the course. This may be one of those times.

### **September 29, 2004**

This week, I summarized the learning objectives once again, reminding students what objectives we met. It's exciting to see them learning something that is measurable. I find students usually respond to the course very well in the end, exclaiming about how much they have learned and how they had to do the research themselves. But many feel lost in the beginning, especially in this course where they are expected to do their own research and present the mini-lectures.

I continue to respond to email and to help the groups work up their mini-lectures. It's fun to work with students who are taking initiative and creating the material for the class. One thing that strikes me routinely is how advanced our adult students are compared to their younger counterparts and also how lost many of these adults are when asked to act independently. While some may have personalities or learning styles that require more guidance, many are really struggling with online learning and are not sure how to get organized or proceed. That skill usually comes after a month or more in their online classes. For a few, I suspect this is their first online class.

This week, we met some of our stated objectives for the course:

***1. Discuss communication theory and how it applies to particular types of technical communication***

Sonali's lecture gave us the foundational theories for technical communication. We discussed applications for the field of technical communications.

***3. Demonstrate a clear understanding of the respective processes, tools, and techniques that apply to technical communications***

Sonali's lecture gave us some insight into processes and techniques that apply to technical communications. We read about the history of the rhetorical approaches and discussed where how the historical roots of technical communication practice are founded in the practice. We also touched on how technical writing differs from other writing crafts.

***4. Identify, examine, and address issues associated with communicating technical information to diverse audiences***

Sonali's discussion of the rhetorical theories gave us insight into issues related to writing for diverse audiences. The discussion about whether tech writing is based on theory or on craft introduced us to different approaches to audience consideration. Students speculated about the role of audience in technical communication today, especially considering the globalization of technical communication and the various technologies and media used to communicate.

***5. Identify and apply efficient techniques for independent and collaborative research on specialized issues in technical communications, including research that uses technology and fosters information literacy***

Sonali did have to present the lecture alone because the her partner had not clue he was to be part of a group. Otherwise, the group work should be an opportunity to apply techniques for collaborative research on specialized issues in technical communications and to use technology for research and collaboration.

### *6. Apply task analysis and planning for technical communication projects*

I don't see this learning objective on my assessment plan, but I will add it. This learning outcome was one of the original outcomes. I must have overlooked it. Sonali demonstrated task analysis and planning in order to complete this project. I would like to think that students who responded to the discussion also demonstrated task analysis and planning in order to complete their discussion. One of Sonali's tasks was to develop questions for the discussion, which were then used to spark discussion and interaction. She did a nice job with the questions – very competent. That always inspires me.

#### **Areas for improvement:**

I would like to see more interaction among the students and will have to stimulate the interaction. Some of the students are naturally more interactive, as well as more knowledgeable, and their postings can readily be seen in the classroom. I sent an email to students at the beginning of this week to remind them about the interaction and participation grade. But this issue of interactivity is always one to ponder each and every class.

Plans for the next month:

1. Continue posting the learning objectives and how we met them each week as part of my wrap up of the week.
2. Encourage the groups who are writing the conference summaries also to focus on the learning rather than just summarizing, without much focus, whatever was written in the conference that week.
3. Participate as a student rather as a teacher to see and demonstrate a few facilitation skills in the conference for the presenting group.
4. Continue to provide direct feedback in the conference to students as a way of encouraging them to find ways to participate, even when they feel they don't have much to contribute.

#### **October 3, 2004**

I am not getting the amount of discussion that I want in this class. I have sent email notes to students explaining the requirements. I left notes in the conferences requesting more interaction. I hear the same thing; students are too busy and “just forgot” or did not spend enough time in the class this particular week. I wonder whether having students present and others respond is not giving students too much time off. They have a research conference coming up third week of the October, during which they will have to present a

research paper and defend it or facilitate discussion on their topics. I'll see how that works.

I have an international student from Ghana who has a bad email address. I left a message for him to contact me. Haven't heard from him yet.

### **October 7, 2004**

This week I posted a summary of learning objectives for the week after the conference was completed. I asked for responses. Nothing to date. I believe they are not following up in the class. I can see that I will need to make the second half of this course much more participatory by forcing weekly readings. It's a bit of a handicap to be doing this without textbooks. Oh well...

### **October 10, 2004**

Groups are working out so far. Two groups did end up doing their projects alone since their partners were no-shows. One person even jumped the gun and posted a lecture, without her partner, one week ahead of time. She did not realize it until the following week when she discovered it was her group's turn.

My student from Ghana finally wrote and told me he was too busy and was going to try to be more responsive in the conference. I do not believe he is doing any readings except those that are posted by other students. I do believe the cultural differences are making it more difficult for him to participate. He gives it a try, but he is not as compulsive a worker as are the more experienced online UMUC students. He is trying to charm his way into my good graces with promises of participation. I have urged him to read the course requirements, but so far, he does not seem to have done that.

He is one of two students new to the UMUC online environment. I have been working with each of these students to help them adjust. Personal attention seems to be helpful here. After I spoke on the phone with my American student, however, I am convinced that he is not putting in the time needed to do the work. On the phone I walked him through the course. He seems to be able to be on the phone and be in the class at the same time. Together we went through the course and I explained where everything was located and where he would find the information needed to do the work. He had not even spent enough time in class to find the syllabus. Go figure. When I checked to see whether this changed his presence in the class, I discovered that it did not. And it's not practical for my student from Ghana to phone me and discuss how to get around the class. He did tell me in an email that he does not have reliable Internet access and must use Internet cafés to get to class. Not a good sign.

### **October 12, 2004**

Today I posted another note requesting more interaction. We'll see how it works out. I may begin resorting to CATs for weekly activities. I don't want to send individual

students out to do research and present it because that does not solve the problem of lack of participation. That, too, becomes one-way communication. Still thinking... if I use CATs as responses to students' responses, maybe I can generate some action here. I hate when this happens.

### **October 13, 2004**

One strategy that definitely works in this course is having students do their own research, write their own presentations, and then field questions. Mostly, it's the researching and the mini-lectures they present that really show they are coming to terms with and understanding the foundations of technical communication. The students who respond do a good job demonstrating that they understand the lecture and can make a significant contribution to "test" the information presented. It's gratifying to see students demonstrate the range of learning objectives that are met through this particular assignment.

### **October 28, 2004**

It's become clear to me that forcing participation is the only way to get students to learn and to produce quality work. However, there are still students who are not attending the class on a regular basis and not doing well.

The Research Conference from last week was feast or famine. Some students presented excellent research reports that reflected the integration of the learning objectives, just as I hoped they would. They clearly read the instructions, followed them, and are participating at 100% level. These students are maintaining A grades throughout the conferences as well as in their written work. What a pleasure.

However, there are students who have not reviewed the project descriptions and requirements and are submitting substandard work. And there are students who did not submit at all, in spite of the emails and class announcements from me reminding them. I have to wonder whether these students have taken any upper level classes. I am also wondering whether they have too many classes. Their reading skills and research skills don't seem to be at the 400-level for the class. They are not even at the 300-level at this point. I can see attempts to use conferences and written assignments from other courses. The topics are just too far off base but close enough to be related to communication studies.

I am developing a hypothesis about class design and online students. In the two institutions where I have taught countless numbers of courses and students, I have observed that online students who can be directed by specific assignments weekly with clear products and expectations do well – if they are organized and can figure out how to set up their schedules to achieve the results. This requires also that they actually have enough hours in the day to do this scheduling. However, I have noticed that these students, while very organized, are becoming REACTIVE students rather than reflective

students. Our online courses seem to have tapped into the same skills and responses used in the workforce. Students do well when someone tells them exactly what to do and how to do it. Of course, for me, a long time teacher, I have to question whether this is real learning or whether we have simply set up another job for our students, with a grade rather than money as the reward.

I'm repeating the Learning Objectives here, as stated in the class syllabus:

- understand communication theory and how it applies to particular types of technical communication
- understand and apply concepts of verbal, visual, and multimedia design in technical communications
- demonstrate a clear understanding of the respective processes, tools, and techniques that apply to technical communications
- identify, examine, and address issues associated with communicating technical information to diverse audiences
- apply efficient techniques for independent and collaborative research on specialized issues in technical communications, including research that uses technology and fosters information literacy
- understand task analysis and planning for technical communication projects
- recognize legal and ethical implications of technical communications and how to produce technical communication that is ethically and legally responsible
- recognize intercultural issues relevant to technical communications and demonstrate skill in addressing them
- understand how technology is used to develop and manage information

Students who had successful research papers for the research conference achieved all but number 2, which addresses multi-media design. I wanted the conference papers actually posted into the conference so students would not have to open up the papers in other software. This works to gain participation, but often hinders the multi-media delivery of the rich research papers. All students can do is to hyperlink, which most do not do. They do, however, link research sites to the Bibliography. Unfortunately, WebTycho does not lend itself to multi-media design for presentations of any kind.

As far as learning is concerned, I do have an observation. A few of these students have been students of mine over the years in other classes I have taught in our Communication Studies program. For those who have been former students, I can actually see the learning in this class. I have followed them over the years and see where they have improved their thinking and writing skills. These online students have made significant progress over the years. We have worked together, chatted offline. I have helped guide them through their assignments, reviewing things they do, making suggestions before they submit papers for our research conferences or for grading, and the work has paid off for them. That is such a refreshing and rewarding thing for me to see.

But over the years, this reactivity in the learning process is also becoming clear. I wonder whether anyone has investigated this.

I know that teaching in the online mode has made me more of a reactive teacher in the actual process of responding to students in class. I do believe this is the consequence of our “learning objectives” approach to learning and our measurement frenzy in educational management. Thank God I work at an institution where students’ liberal learning is really foremost in the minds of professors and the institution. I believe UMUC has lost this particular edge in their programs. We have become so self-centered as an institution. Perhaps this is at the heart of the conflict between the administration and the overseas faculty.

### **Week 9 November 1 – 7**

#### **Objectives we covered this week:**

- Discuss communication theory and how it applies to particular types of technical communication
- Demonstrate a clear understanding of the respective processes, tools, and techniques that apply to technical communications
- Identify, examine, and address issues associated with communicating technical information to diverse audiences
- Explain legal and ethical implications of technical communications and how to produce technical communication that is ethically and legally responsible
- Identify and analyze intercultural issues relevant to technical communications and demonstrate skill in addressing them

Students this week covered gender issues in technical communication. In addition to two readings I supplied, the presenting students included in their presentations other readings they found on the web and in other communication textbooks. Additionally, they asked fellow students to look for articles and include them as part of the class responses.

Some students are still struggling with the group work. A few “foreign” students are having difficulties understanding what is expected of them and are having some difficulties keeping up with the out-of-class research. They do not seem to have ways to keep in touch with the class. Their participation rate is pretty low as well. I have chatted via email to answer questions and encourage participation, but I don’t believe they check email frequently enough for this strategy to make sense.

However, participating students this week did a great job examining gender communication theory and its role in technical communication. These are definitely issues when it comes to technical writing as the field seems to favor men where the higher salaries are and women where the grunt work is accomplished. Also, the gender neutrality that is considered ideal in technical writing has its own problematic, as the students so aptly pointed out. We had a vigorous discussion about whether we actually want to see gender neutral language. Most agreed we did not, in spite of the trends.

Students demonstrated excellent critical thinking as they critiqued the readings and responded to the presentation. Their interests and levels of enthusiasm were gratifying to see. We've had a continued discussion about whether we can have a technical communication theory. As we discuss these other issues surrounding the rhetoric of the discipline, we continue to discuss these issues as part of the rhetorical theory.

One area I notice that I need to work on improving is having more case studies. I think cases would help students to engage more in the area of legal and ethical issues surrounding this discipline. My students do engage this area, but usually they do this with their own examples from their work environments. This is a smooth way to introduce the issues. However, students who are not working in the field have difficulties finding ways to participate. Case studies might help that situation.

### **Week 10 November 8 – 14**

#### **Objectives we covered this week:**

- Discuss communication theory and how it applies to particular types of technical communication
- Demonstrate a clear understanding of the respective processes, tools, and techniques that apply to technical communications
- Identify, examine, and address issues associated with communicating technical information to diverse audiences
- Explain legal and ethical implications of technical communications and how to produce technical communication that is ethically and legally responsible
- Identify and analyze intercultural issues relevant to technical communications and demonstrate skill in addressing them

We looked at multi-cultural issues and internationalization of technical communication. We had excellent discussion this week, with lots of outside material and good discussion of the issues of globalization and localization. Students located some useful and interesting websites that had information on this aspect of technical communication. Students have been able to relate this week's discussion to their professional goals more than last week's discussion – although they did have a lively discussion on the gender issues.

The presenting students had two excellent mini-lectures with hypertext on what globalization means to technical communicators. We did discuss the legal liabilities and ethical issues of writing for an international audience as well as product and marketing design for these international audiences.

We concluded with a solid discussion of how globalization and localization will affect technical communicators. We are seeing the job market open up in this area but students note that they will need foreign languages to compete and the capability to work online.

I am reminded about what a strong communication studies program we have when I see the sophistication with which our students can manage these issues.

### **Week 11 November 15 – 21**

The student presenting this week did not do her homework. I emailed the student and asked if she needed help. I believe she was unable to figure out what she needed to do. She has not been a strong participant to date, so she likely is not clear on how to do this assignment. Her email responses have not been very consistent. I don't see that she will do well online without the participation stepping up.

### **Week 12 November 22 – 29 Thanksgiving**

This week, students are preparing their White Papers for a white paper research conference next week. This is the second of the research papers. Their papers are really interesting to read. In addition to the conference discussions, which are fascinating, I just love this part – gives me the motivation to keep going here.

These papers represent the richest expression of the students' meeting their learning objectives.

## **APPENDIX E**

### **TABULAR SUMMARY OF ASSESSMENT RESULTS**

## Assessment Results

Student	Pre-test*	Group Presentation 20%	Group Summary 10%	Research Conference 20%	White Paper 20%	Portfolio 10%	Participation 20%	Post Test	Final Grade
A	Did not take	0	0	0	50%	0	5	F	3/F
B	Did not take	0	0	0	0	0	0	0	FN
C	Did not take	100	80	90	90	80	100	A-	92/A-
D	Did not take							NA	Withdrew
E	Fail	100	100	100	100	95	100	A	95/A
F	Did not take	50	50	80	100	90	50	C-	70/C-
G	Fail	100	100	90	100	90	75	A-	92/A-
H		90	0	100	65	100	30	D	67/D
I	Pass	90	100	100	100	100	100	A	98/A
J	Fail	100	0	70	100	80	75	C	77/C+
K	Did not take	100	100	100	0	0	100	C-	70/C-
L	Fail							NA	Withdrew
M	Fail	100	0	80	80	100	75	B-	77/C
N	Did not take	0	0	60	0	0	30	F	10/F
O	Pass							NA	Withdrew
P	Did not take	100	100	100	100	0	100	B+	90/A-

	* Pass/Fail								