

## **THE VIRTUAL CLASSROOM TO RURAL ALASKA: Web-Based Professional Development for Teachers**

**Maria Elena REYES, Ph.D.**  
**Asst. Professor, School of Education**  
**University of Alaska Fairbanks-USA**

**Claudette BRADLEY, Ed.D.**  
**Assoc. Professor, School of Education**  
**University of Alaska Fairbanks-USA**

### **ABSTRACT**

Delivering course content to students in rural Alaska has historically been problematic. This paper will discuss the development of a web-based course designed for licensed teachers in rural Alaska. The graduate course was offered fall of 2000 by the University of Alaska Fairbanks' Center for Distance Education. As recently as two years ago, the primary means of teaching a distance education course at the university was by correspondence or by audio conferencing. The objective of the new course was to provide professional development to practicing classroom teachers in rural Alaska schools. The academic focus was on the integration of technology into the content areas of mathematics, science, social studies, and language arts. Two University of Alaska Fairbanks education professors co-taught the course-using Blackboard, the university's web-based, instructional program.

The researchers concluded that adding a visual component in a web-based format, in addition to real-time interaction with the instructor can greatly enhance the delivery and effectiveness of distance education courses. For licensed teachers taking the web-based course in fall of 2000, this was the first time that they had used so many technologies while taking a distance education course. In a post survey given by their teachers, they uniformly reported a positive learning experience.

### **INRODUCTION**

This paper will discuss the development of a web-based course designed for licensed teachers in rural Alaska. The graduate course, entitled ED F693 Integrating Technology into the Curriculum, was offered fall of 2000 by the University of Alaska Fairbanks' Center for Distance Education. The objective of the course was to provide professional development to practicing classroom teachers in rural Alaska schools. The academic focus of the class was on the integration of technology into the content areas of mathematics, science, social studies, and language arts.

Like most schools of education in the United States, the University of Alaska Fairbanks' School of Education presently requires preservice teachers to take technology course work as part of their teacher training. However, until this graduate course was offered, neither the School of Education nor the Center for Distance Education offered an instructional technology course for already licensed teachers either on the Fairbanks campus or by distance education.

Some school districts in the state do offer teachers in their districts some training in this area, but such efforts appear inconsistent. Generally, it is the larger districts that are more likely to have the funding to hire the staff or to bring in outside consultants to deliver such training. Providing a quality education especially for students in rural Alaska has historically been a challenge for the state's educators and policy makers.

One of these challenges has been simple geography. Alaska at 270,374 square miles is about two and a half times the size of Texas. Perhaps due to its harsh weather, it has a low population density with an average of 1.07 persons per square mile. Much of the land remains uninhabited. Some citizens live in small villages, which are not on the road system and are accessible only by air or by dog sled, or snow machines during the long winters. One of two major urban areas [Anchorage] holds 41.7 percent of the state's population (Boucher, 1998).

While Alaska's population is increasing more ethnically and racially diverse. The largest minority group remains Alaska Natives, who constitute 16 percent of the state's population. The term "Alaska Native" in this paper actually refers to the various tribes indigenous to the state. These include Eskimo (the largest number), Alaska Athabaskan, Tlingit, Haida, Tsimshian, and American Indian. Like American Indians in the "lower 48," Alaska Natives remain under-represented in institutions of higher education and in the professions.

### **PUBLIC SCHOOL EDUCATION IN ALASKA**

Because school administrators face critical teacher shortages in many rural schools, under the leadership of a new chancellor and a new education dean, efforts are being made by the University of Alaska Fairbanks [UAF] to recruit and educate Alaskan citizens in the field of education. Among all the institutions of higher education in the state, it has been UAF that has had a historic commitment to rural Alaska and to Alaska Natives.

The teacher shortage in the state has been so severe that 60 percent of all new teachers typically come from out of state. The attrition rate for most of these teachers has always been high (Fried & Windisch-Cole, 1998). Beside the long distances, isolation, cultural differences, lack of adequate housing, and the weather, the cost of living in rural Alaska is significantly higher than in the urban areas. In some areas, food prices are 50-75 percent higher than in Anchorage. In the most remote areas, prices can be even higher (Boucher, 1998).

Unfortunately, due to inadequate funding, salaries for teachers in these rural schools are no longer competitive as they once were. In addition, due to a continuing teacher shortage in many states in the U.S., Alaska's administrators face additional difficulties in recruiting new teachers to the state. Some states have begun offering generous sign up bonuses or other additional subsidies in an effort to attract new teachers.

To further complicate matters, the accountability movement in the U.S. influenced the development of high stakes testing in Alaska that was instituted spring of 2000. Today, if an Alaska high school student does not pass the state's Qualifying Exam, the student will not be allowed to graduate. Some school districts are working hard to align their schools' curricula with these tests, to offer after school or summer classes, and to provide additional training to teachers in an effort to raise test scores.

### **CREATING A WEB-BASED COURSE FOR TEACHERS IN RURAL SCHOOLS**

Some U. S. educators are surprised by the way in which distance education has become such a dominate topic in education (Oblinger, 2000). Until very recently, distance education in Alaska consisted almost exclusively of audio conferencing where students, usually at rural sites, called in, at a specified time, to their instructor. The use of the phone for audio conferencing remains an important and much used method of content delivery for institutions that deliver distance education. (See Reyes & Bradley, 2000; Young, 2000)

The reason for the growth of web-based courses in recent years is simple –web-based courses serve the needs of students especially non-traditional students like the ones likely to be taking distance education courses in Alaska. (For a discussion of this issue,

see Rodes, Knapczyk, Chapman, and Chung, 2000). A recent survey found that most students taking distance education courses from one of the institutions in the University of Alaska System were white, female and over age. However, twenty five percent were identified as Alaska Native, indicating this group's over-presentation in their participation rate. (Refer to Reyes & Bradley, 2000.) It has not unusual been usual for students taking distance education courses in the villages in Alaska to take up to ten years to receive their college degree (Reyes, 2000).

On February of 2000, two UAF education professors submitted a proposal to the Alaska Schools Research Fund to develop a new web-based course for teachers in rural Alaska. The professors received funding from the UAF Alaska Research Fund in February 2000. The first phase of the project required the educators to survey institutions in the state offering distance education. (See Reyes & Bradley, 2000 for the results and discussion of this survey.) The second phase of the project was for them to develop a web-based course at the graduate level for licensed teachers.

The primary objective of the course was to teach the teachers to integrate technology into the mathematics, science, English and social studies curriculum in their classrooms at either the elementary or secondary levels. A secondary objective was for students to improve the quality of their classroom instruction.

Prerequisites for the enrolling in the course was that students hold a Type A Alaska teaching license, have access to a computer that had an internet connection, and be able to obtain a university user –id account, available free of charge to all UAF students. Students were required to hold such a university internet server account in order to be able to access the university's web-based, instructional system called Blackboard, which would be used during the class.

By offering the course through the university's Center for Distance Education, the professors attempted to recruit teachers from rural schools. After a somewhat protracted and troublesome approval process within the School of Education, the course was approved as a special topics class one week before it was scheduled to begin.

In fall of 2000, the class was co-taught by the two professors who developed the course. Students were scheduled to meet twice a week for an hour and a half each class session . During class meetings, the use of audio conferencing –holding class using a speaker phone- was not totally eliminated. During some classes periods, the professors and students met both on-line and by audio. Several class meetings took place using one of the on-line options. In addition to communicating with students using the many tools in Blackboard, the instructors also used email and the fax machine.

Students submitted most of their course assignments electronically; however, students also faxed some assignments to the professors. At times, the conscientious students enrolled in the class exhibited some nervousness in handing in assignments electronically often requiring the professors to reassure them that the assignment had indeed been received. In some cases, important assignments were transmitted using both electronic means and the fax machine.

During the class, some students shared valuable web-site locations or educational materials with their peers. Such contributions at times became the topic of a class discussion. The course also benefited by the enrollment of a graduate student who had extensive training in technology. The contributions and expertise of the student assisted in making the class such a rewarding one for everyone.

#### **LEARNING TO USE BLACKBOARD**

Educating the UAF faculty on the use of instructional technology has been a recent development. On-campus faculty members are invited, but are not required, to attend

technology workshops conducted every semester by the head of the Faculty Technology Resource Center. Most often, when a faculty member in the recent past was assigned to teach a distance education course, the instructor would turn to a nearby colleague who had taught such a course before and asked for guidance and "tips" on conducting a distance education class.

However, about two years ago, Blackboard was introduced to faculty interested in using this web-based program to conduct their classes. More and more professors on the UAF campus find themselves, like their counterparts across the U.S., teaching on-line (Carnevale, 2000). On the UAF campus, the use of Blackboard has not been restricted to faculty teaching distance education courses, as its various options can enhance the quality of instruction for all students, both on and off campus.

The use of a program like Blackboard makes large distances almost irrelevant. In addition, some features, like the Discussion Board option, allow the instructor the ability to use asynchronous communication as needed. For example, if an instructor is unable to meet with a class, the instructor can post an assignment on the Discussion Board. Students are asked to respond within a certain time period, perhaps up to a week or so, and then are required to post their responses. These responses were accessible to all class members, and students were encouraged to consider the views of their peers and to consider these responses as their on-line discussions developed. Access to the Discussion Board and to the other options in Blackboard were available seven days a week, twenty-four hours a day to students enrolled in a class.

Other Blackboard option, found under the Control Panel accessible to the instructors, included, but was not limited to the following:

**Announcements** essentially an electronic bulletin board

**Course Information** where the professors posted their course syllabus

**Staff Information** where the professors posted their credentials and their pictures

**Assignments** where the professors could post the requirements and descriptions of assignments

**External Links** which referred student to various useful websites

**Send Email** where the professors or individual students could send email to a student, to the instructor/s, to all students, or to both instructors and to all the students enrolled in the class

**Discussion Board** where students were asked to post a response to a given question and were also required to consider prior student responses; this option provided the format for asynchronous communication

**Digital Dropbox** where students could submit their assignments; professors could grade the assignment, make comments, and return the document electronically to the student

**Virtual Chat** used to hold on-line, real time discussions, included use of electronic white board that where users could access and post various websites during class discussions.

Also available to the instructors was a section called "Course Statistics." Under this section, the instructors had the ability to generate overall course statistics that included: Total number of accesses per area, Number of accesses over time, User accesses per hour of the day, User accesses per day of the week, and Total accesses by user. (Refer to Appendix for selected examples of these options.)

For the professors involved in teaching ED 693, the use of Blackboard provided their first opportunity to use such a system. Throughout the semester, both found themselves learning to use the system along with their students. This experience would provide invaluable training and would change they way each conducted all their other classes.

## **SURVEY FINDINGS**

The professors who had designed ED 693 also developed a post survey that was administered at the end of the fall 2000 semester. (See Appendix F.) Survey findings indicated that students were positive about the course and by the method of delivery. Most students stated that they planned to use the technology skills they had learned in their own classrooms. Several stated that they would even require their own students to learn to use these technologies.

From the professors' observations and analysis of the survey results, one of the most useful tool for students –both for use in the classroom and in their professional presentations- was the use of PowerPoint. Students had been required to prepare several PowerPoint presentations during the class. These presentations were transmitted electronically to all class members and provided a visual component during student presentations.

PowerPoint is an integrated presentations package that allows the presenter to outline a presentation or demonstration, make presentation slides (in color if a color printer is available), and generate notes and handouts for the presenter to use and distribute. The use of PowerPoint can make a presentation more professional and effective by providing a powerful visual component and by freeing up the speaker to concentrate on his/her verbal presentation and on his/her interaction with an audience.

Additional survey findings included the following:

- All students (n=5) enjoyed the course and thought that the interactive technology used improved the delivery of the content;
- Each student stated that they would recommend this course to other teachers;
- In dealing with new software, some students indicated that they had an initial feeling of 'nervousness' about learning to use it;
- Students coming into the course with strong technology skills remained positive concerning all aspects of technology;
- Two students stated that they had some negative experiences during the class due to a poor Internet server at their school (used during the class);

There was a low absentee rate for students in comparison to other distance education courses, and there was 100 percent retention rate for the class. Below are the unedited comments offered by students when they were asked?

- "What did you like most about this course, ED 693?"
- "Using Interactive Technology"
- "I thought it was going to be different. I have never taken a course from either Dr. Reyes or Dr. Bradley before and didn't know how receptive they were to a non-Math major student. I think that my biggest worry: a math teacher and English Professor plus the palm sweating scary idea of taking a computer class."
- "Being exposed to the programs I had never used before"
- "The PowerPoint instruction"
- "Blackboard"

## **CONCLUSION**

The professors who designed and taught ED 693 found that real-time communication with the instructors was critical to the success of the class. Real time interaction between the instructors and students seemed to keep the quality of the class at a high level. Of course, such interaction during the assigned class period included interaction among the students themselves providing a rich form of communication and spontaneity mimicking that of a traditional graduate level seminar. Other researchers have emphasized the

importance of developing a close and friendly relationship with students taking a web-based courses (Zirkle & Guan, 2000).

When the course was over, it was the instructor's consensus that content delivery that included web-based instruction with real time communication between the instructor/s and students was vastly superior to instruction restricted to audio conferencing.

For students, this was the first time they had taken a distance education course using so many forms of technology. The instructors/researchers of this project agree that distance education can be as effective as traditional instruction (see Young, 2000) and certainly more effective than audio conferencing alone. They also believe that teaching a web-based course can be rewarding to the instructors although such courses do require additional advance planning, time and skill to conduct effectively. (see Carr, 2000).

During the course, students appreciated the flexibility to communicate with the professors and with each other using the Discussion Board option of Blackboard. Access to Blackboard was on a 24-hour basis, seven days a week. This was convenient when the professors were out of town for a conference presentation and were too busy to meet on-line during the regular, scheduled class time. The professors also had the option to modify the course schedule and use the Discussion Board when several students could not attend class during the assigned time for professional reasons.

Finally, an additional and unexpected finding for the professors' own professional development was that the experience of designing and teaching a web-based course changed the way in which they taught their other classes.

The professor who taught math methods courses by distance education for the university found that she used the tools and resources of the internet and Blackboard to more clearly and effectively present course content. In fact, as the semester progressed, the professor's use of Blackboard accelerated in these other classes. By all reports, her students were delighted. In fact, on their own initiative, students began using the tools in Blackboard to turn in or to present assignments. The professor concluded that in mathematics, the visual component added an important and valuable dimension to these courses.

The other professor, in her enthusiasm, was surprised that not all her on-campus, graduate students embraced the web-based, synchronous (real time) meetings she began including during her on-campus courses. It became obvious to her that some students preferred the personal contact and intellectual challenge of traditional small, graduate level seminar setting. (For further discussion, see Carr, 2000.)

From their experience, the professors concluded that adding a web-based component to audio conference, distance education courses greatly improved their quality, students' interest, and communication between the instructor and students. The accessibility of Blackboard cannot be over-stated. Such accessibility for students, like the ones who enrolled in ED 693 who held full-time jobs, made them feel like part of the university community.

There is no question that an interactive, web-based format could improve the effectiveness of some distance education courses –like mathematics- where a visual component is most valuable. In Alaska, such technology offers great promise in assisting the university in effectively providing an education to rural residents.

From the professors' perspective, caution is suggested in replacing the traditional classroom for a web-based, instructional format although tools from such a program may have limited use. Some students will always prefer the spontaneous, intellectual exchanges common in seminar type classes and their structured class times.

However, these students too can benefit from the various features in a web-based instructional program like Blackboard. On a 24-hour basis, they can check the course syllabus, verify their instructor's credentials, review description of a course assignment, check the instructor's notes, or ask the professor a question.

A final recommendation offered is that the university provide a web-based component in all its distance education courses.

**Author's Note:** This project was possible by funding from the UAF Alaska Schools Research Fund.

#### **CONTACT ADDRESSES of AUTHORS**

Maria Elena REYES, Ph.D.  
Asst. Professor, School of Education  
GR 704B, UAF Campus  
University of Alaska Fairbanks-USA  
Phone: 907-474-7696  
Fax (773) 257-8400  
Email: [ffmer@uaf.edu](mailto:ffmer@uaf.edu)  
[http://www.uaf.edu/educ/faculty/cv/maria\\_reyes.pdf](http://www.uaf.edu/educ/faculty/cv/maria_reyes.pdf)

Associate Professor Claudette Bradley  
UAF Interior-Aleutians Campus  
University of Alaska Fairbanks-USA  
PO Box 756720  
Fairbanks, Alaska 99775, USA  
Phone: 907-474-5376  
Email: [ffceb@uaf.edu](mailto:ffceb@uaf.edu)

#### **REFERENCES**

Boucher, J. (1998). "Measuring Alaska's cost of living". *Alaska Economic Trends*, 18, (6), 1-24.

Carnevale, D. (2000). "Instructors take a turn as students to learn about online teaching", [On-line]. *The Chronicle of Higher Education*, February 18, 2000. URL: <http://chronicle.com/free/2000/02/2000021801u.htm>

Carr, S. (2000). "Teaching distance courses is rewarding, survey of instructors finds, [On-line]." *The Chronicle of Higher Education*, March 15, 2000, URL: <http://chronicle.com/free/2000/03/2000031501u.htm>

\_\_\_\_\_, "2 professors find that online chats are unpopular," [On-line]. *The Chronicle of Higher Education*, April 7, 2000, URL: <http://chronicle.com/free/2000/04/2000040701u.htm>

Fried, N. & Windishch-Cole, B. (1998). "Public school education—A big industry". *Alaska Economic Trends*, 18, (2), 1-16.

Oblinger, D. and Kidwell, J. (2000). "Distance learning are we being realistic?" *Educuse Review*, 35, (3), 30-38.

Reyes, M. and Bradley, C. (2000). "Hello, out there: A look at distance education in Alaska," [On-line]. *First Monday*, 5, (10), October 2000. URL: [http://firstmonday.org/issues/issue5\\_10/reyes/index.html](http://firstmonday.org/issues/issue5_10/reyes/index.html)

Reyes, M. (2000). "What does it take? Successful Alaska Native college students at the University of Alaska Fairbanks". *Journal of College Student Retention: Research, Theory & Practice*, 2, (2), 141-159.

Rodes, P, Knapczyk, D., Chapman, C., and Chung, H. (2000) "Involving teachers in web-based professional development," *The Journal*, 27 (10), pp. 94-99, May 2000.

Young, J. (2000). "The lowly telephone is central to some distance-education courses", *The Chronicle of Higher Education*, 46, (36), 46.

Young, J. (2000). "Scholar concludes that distance ed is as effective as traditional instruction," *The Chronicle of Higher Education*, February 10, 2000. URL: <http://chronicle.com/free/2000/02/2000021001u.htm>

Zirkle, C. and Guan, S. (2000). "The journey into distance education", *Techniques: Connecting Education & Careers*, 75, (5), 18-22.

**Appendix A**  
**EXAMPLE OF ANNOUNCEMENTS SECTION -BLACKBOARD**

**Maria Reyes ED\_F693\_F01\_F00: Integrating Technology into the Curriculum**  
**Announcements**  
**Posted in the Last Two Weeks**

**PLEASE COMPLETE AND RETURN SURVEYS!**  
**CLAUDETTE AND MARIA**  
Sites for formatting papers using APA style:  
<http://www.apa.org/journals/webref.html#Databases>  
OR [http://webster.commnet.edu/apa/apa\\_index.html](http://webster.commnet.edu/apa/apa_index.html)

These are just two; I am certain there are others. APA style is the standard for written, graduate work in any of the social sciences including education.

Maria

Assignment for November 9, 2000

1. 1. Click on [Assignments](#)
2. Scroll down to last assignment.
3. Read the first paragraph,
4. Then scroll down to the paragraph with your name. Read this paragraph.

Each of you has a slightly different assignment and will become an expert in that area of Kagan Philosophy.

Check the assignment section for your work on 11/9 and 11/13.

**Appendix B**  
**SYLLABUS FROM BLACKBOARD SITE**  
Current Folder = Course Information  
ED 693

**Integrating Technology and the Web in Mathematics/Science and English/Social Studies Classrooms**

**COURSE SYLLABUS**

**3 Credits, Distance Education**  
**Maximum number of students: 15**  
**Class meets T/TH 3:30-4:45**

**Instructors Claudette Bradley and Maria Elena Reyes**

The purpose of this course is to improve the quality of classroom instruction using the integration of technology into the mathematics/science and/or English/social studies curriculum at the elementary or secondary level. This course is designed for licensed teachers. Some class meetings will take place on-line and/or by audioconference. Students will learn to deliver classroom instruction using PowerPoint, will become familiar with utilizing Internet resources and other instructional technologies for planning and delivering instructional units in the major discipline areas, and will be required to develop an interactive, on-line presentation.

Major assignments include developing an instructional unit in specific content area/s using PowerPoint for presentation in the classroom, and designing and presenting an interactive, on-line presentation. Students will use APA Style [Publication Manual of the American Psychological Association, 4th. Edition] in all their work, the standard for graduate course work in education.

Students will be expected to participate in a pre and post survey on their level of technology competencies. A prerequisite to registration is a Type A Alaska teaching license in elementary or secondary education, or permission of the instructor. Technical prerequisites include the following:

- ➤ an Internet connection,
- ➤ A web browser such as Netscape 4.0 or higher and IE 4.0 or higher that can accommodate both JavaScript and Java,
- ➤ an email account, and
- ➤ Microsoft Office 98 software.

### **Required Texts**

\_\_\_\_\_. (2000). Astronomy thematic unit. Westminster, CA: Teacher Created Materials.

\_\_\_\_\_. (2000). Beginning charts, graphs & diagrams. Westminster, CA: Teacher Created Materials.

Kagan, S. and Kagan, M. (1998). Multiple intelligences: The complete MI book. San Clemente, CA: Kagan Cooperative Learning.

\_\_\_\_\_. (2000). PowerPoint simple projects. Westminster, CA; Teacher Created Materials, Inc.

\_\_\_\_\_. (2000). Elections. Westminster, CA: Teacher Created Materials, Inc.

\_\_\_\_\_. (2000). Writing skills for primary students. Westminster: CA: Teacher Created Materials, Inc.

**Note:** Students will be required to download instructional manuals created by the staff of the UAF Instructional Technology Development Center, available on-line. Students must download the following lab guides from the UAF Instructional Technology Development Center [at http://itdc.elmer.uaf.edu/itdc/lab/handouts](http://itdc.elmer.uaf.edu/itdc/lab/handouts).

PowerPoint: A Running Start

Using PowerPoint on the Web

Required Additional Materials

Netc.org. (2000). Harris elementary travels the USA: A USA geography project.

Videotape. Northwest Educational Technology Consortium: Portland, OR.

Netc.org. (2000). Classrooms @work/Tools @hand. CD Rom. Northwest Educational Technology Consortium: Portland, OR.

Additional materials and readings as provided

### **Recommended Texts**

DePorter, B., Reardon, S., and Nourie, S. (1999). *Quantum teaching: Orchestrating student success*. Boston: Allyn and Bacon.

Duffy, T. & Jonassen, D. (1992). *Constructivism and the technology of instruction*. NJ: LEA. [The following is also available for PCs]

Hooper, D. (2000). *Microsoft works for terrified teachers*. Westminister, CA: Teacher Created Materials.

\_\_\_\_\_. (2000). *Netscape for terrified teachers*. Westminister, CA: Teacher Created Materials.

Kiesler, S. (1997) *Culture of the internet*. Mahwah, NJ: LEA.

Tapscott, D. (1999). *Growing up digital: The rise of the net generation*. New York: McGraw-Hill.

For teachers of grades 6-8, we recommend the following text:

Fleck, T., et. al. (1998). *Hyperstudio for terrified teachers*. Westminister, CA: Teacher Created Materials.

### **Outcomes and Objectives**

- ➤ Upon completion of the course the student will be able to use various instructional
- ➤ technology tools to:
- ➤ Develop a rich, thematically based unit of instruction, which integrates technology, in one or more content areas;
- ➤ Develop, discuss and present a PowerPoint lesson in one or more content areas;
- ➤ Develop authentic assessments to test the efficacy of the units and the transfer and/or enhancement of critical thinking skills and knowledge to students;
- ➤ Justify choice of curriculum tasks, assessments, and selection of resources based
- ➤ upon the teacher's knowledge of curriculum theory and practice;
- ➤ Locate current resources, both in hard copy and on the Internet, in their field and in other content areas that are necessary for planning required assignments.

### **Grading Policy**

**Educational Autobiography 20% Due Week 2**

**PowerPoint Presentation 30% Due 11/14**

**Unit Curriculum Plan 30% Due 12/5**

**Other assignments 20% (attendance, participation grade, etc.)**

**Description of Major Assignments**

**Educational Autobiography Due Week 2**

This assignment has two parts, **Student Experiences and Reflection and Analysis**. For the first part, **Student Experiences**, write a collection of three or more short essays or scenes that capture important aspects or vivid experiences of your own education. One of these experiences should include student's experience with computer technology that made an impression on the student.

The second part of this assignment is called **Reflection and Analysis**. After writing about the educational experiences that you recall, reflect about the implications these had in your life as a student and as an educator. Grading for this assignment will be based on how well your paper meets the following: essays or scenes are developed with clarity and depth and convey a sense of the author's earlier educational experiences; reflection/analysis section draws a connection between the experiences and present attitudes towards education; and writing is clear, coherent and mostly error free. Any unacceptable writing assignment will be returned for a rewrite.

### **PowerPoint Presentation Due November 14**

This presentation will be based on an instructional unit created for your grade level focusing on one or more content areas. State or national standards and frameworks for each of the content areas will be represented. Components of the presentation include:

1. A short summary of the unit stating general relevant information such as scope, duration, target age group, assessment tools, subject areas represented, and topics covered.
2. A schedule of the instructional unit will be created. Scheduling can be in block time.
3. The student learning goals for the unit will be articulated for each subject area represented in the unit.
4. The standards/frameworks that the unit is based upon will be listed for each subject area represented in the unit.
5. The standards/frameworks will be further developed into outcomes or behavioral objectives so that the intent of each day's learning and teaching is explicit and clear.
6. Teaching methods and strategies, along with student activities will directly relate to the stated goals, standards, and objectives of the unit.
7. An assessment package will be created that is directly linked to the stated goals, standards, and objectives of the unit that will enable the teacher to assess student learning.
8. Included in the assessment package will be teachers' reflective comments following presentation of the unit and assessment of the unit by the students in the classroom.
9. Each content subdivision, if more than one content area is represented, should be able to stand alone as a teachable unit. Technology will be incorporated into each unit in an appropriate and meaningful way.
10. Students will be expected to complete an assessment survey on their peers' presentation.

### **Unit Curriculum Plan Due December 5**

- ➤ A well-developed Plan will be organized in an innovative and user friendly manner with clear summaries and useful suggestions of how the resources, including Internet resources, will be used in the classroom.
- ➤ A well-developed Plan will be cohesive and coherent; will make use of existing technologies to enhance students' understanding and mastery of the material; will have a layout that is logical and flows smoothly; will show a strong relationship between objectives, approaches, and student activities; illustrates a variety of approaches; offers an appropriate assessment plan; and give examples of specific assessment
- ➤ A well-developed Plan will include an annotated bibliography (APA style) that lists resources from various information modes such as books, pamphlets, state and national publications journal articles, computer software, film/videotape, internet sites, etc. Citations in the annotated bibliography will be complete and easy to use. The user will be alerted to any difficulties or known problems in gaining access to the data or in obtaining copies of the resources.

### **Assignment**

1. Choose a grade level and course in a one or more content area/s.
2. List goals and purposes, which clearly illustrate how you will be integrating technology into your classes:
3. Approaches: Describe the major teaching approaches you will use, including use of textbooks, technology tools and/or software, key alternative approaches, and materials. Describe alternative programs or approaches to the teaching of your course for students who may not succeed in the first approach listed.
4. Lay out the semester plan. Create a unit plan on a school calendar format. You may use an actual Teacher's Plan Book for this. It is understand that the plan is tentative and may be revised as needed as the semester progresses.

5. Include a student syllabus that can be distributed in the first day of class. Think about the tone you want to set for students as they begin the course. Consider including a letter to your students' parents. Keep it short.
6. Write up one to three key assignments for the semester, as it would be given to students.
11. Describe and give examples of your plan for evaluating students' learning during the semester.
12. Include an annotated bibliography of materials, resources, and texts that you have reviewed and that you recommend or think that a teacher should avoid in planning the course.
9. Final reflection/Conclusion/Presentation.

What have you learned while working on this assignment? How will this assignment with its integration of technology help or hinder you in your future work? Present a short overview of your curriculum plan to the class.

### **Tentative Course Outline**

Please be aware that you may have to spend time outside of class time -as necessary- in order to learn to use and utilize Blackboard, PowerPoint, etc. The instructor/s will be available to assist you in this task and/or will be able to locate available resources to assist you in successfully mastering these tasks.

#### **Week 1 Introduction**

Review of Syllabus and Assignments

Discussion: National Technology Standards

Logging on/off via Blackboard, Reading/discussion assignment

#### **Week 2 Lab: Learning to use PowerPoint I**

Reading/discussion assignment

Assignment: Complete Educational Autobiography

#### **Week 3 Guest speaker: Scott Kiefer, UAF ITDC Director**

Due: Educational Autobiography

Reading/discussion assignment

#### **Week 4 Lab: Learning to use PowerPoint II**

Reading/discussion assignment

#### **Week 5 Educational Autobiographies, on-line discussion**

#### **Week 6 Major curriculum models, lesson plans, approaches, on-line**

Reading/discussion assignment

#### **Week 7 Curriculum development discussion in the content areas**

Reading/discussion assignment

#### **Week 8 Discussion and lab: Internet research, resources**

Reading/discussion assignment

#### **Week 9 PowerPoint Presentations**

#### **Week 10 PowerPoint Presentations**

#### **Week 11 Catch Up Day/Individual Conferences, if needed**

Reading/discussion assignment

#### **Week 12 Semester Plan Presentations**

#### **Week 13 Semester Plan Presentations**

Reading/discussion assignment, if needed

#### **Week 14 Technology Issues in Education Discussion, Wrap up**

Created on Aug 16, 2000 Last Updated on Sep 11, 2000

### **Appendix C**

#### **DIGITAL DROPBOX –FROM BLACKBOARD**

**[PROFESSOR/S CAN 'CLICK' ON ASSIGNMENT TO OPEN DOCUMENT.]**

Current Files in Your DropBox

**Note:** If you want to save a file, right-click or option-click on the Link Name and choose Save Link As

Uploaded by Link Name File Size Received on

Ortis, Joe (fsjao) [Assmt #1](#) 39424 Sep 19, 2000

Pungowiyi, Barbara (nsbjp) [Homework Assignment #1](#) 13980 Sep 19, 2000

Ortis, Joe (fsjao) [PowerPoint1.ppt](#) 1326592 Sep 28, 2000

Ortis, Joe (fsjao) [Media Literacy \(Word\)](#) 26112 Oct 26, 2000

Groat, Todd (ftthg) [Kagan Lesson Plan](#) 78848 Nov 21, 2000

Ortis, Joe (fsjao) [Joe's elementary unit102400](#) Dec 14, 2000

### Send File to Student

Select the student to whom the file is to be returned to.

Next, click the *Browse* button to select the file to attach from your computer.

Finally, briefly describe the type of file you are attaching.

Recipient:

File to Upload:

Name of Link to File: (Example: *Homework One, Assignment One*)

### Comments

Return File to Student

## Appendix D

### COURSE STATISTICS SECTION—BLACKBOARD ACCESSIBLE ONLY TO COURSE INSTRUCTOR AND UNIVERSITY WEBMASTER[VISUALS NOT INCLUDED]

Select the areas and time period of your course you want to analyze. You can return to this page later to adjust this filter.

Report Type:

Time Period:

All Dates Between The Following Dates:

From:

To:

Select the users of your course you want to analyze. You can return to this page later to adjust this filter.

### Users: All Users Selected Users

*In order to select multiple users, hold down the Control Key and select the users.*

Please select the report generation options. If you wish to refresh the dataset, select *Yes*.

Refreshing the dataset will take a few moments to recalculate your statistics.

Do you wish to refresh the dataset:

Updated: Saturday, January 20, 2001 12:41:37 PM Yes No

What information do you want to display: Total Number of Accesses per Area

Number of Accesses over Time

User Accesses per Hour of the Day

User Accesses per Day of the Week

Total Accesses by User

To generate your Report, click on the *Generate Report* button below.

### Generate Report

Overall Course Statistics

*Statistics Generated on Saturday, January 20, 2001 12:41:37 PM*

**Note:** You may have to reload/refresh this page for the images to be correct.

Total Number of Accesses per Area

Number of Accesses over Time

User Accesses per Hour of the Day

### User Accesses per Day of the Week

#### Total Accesses by User

Area Name Hits Percent

Content Areas 1363 67.5 %

Communication Areas 354 17.5 %

Group Areas 1 0.04 %

Student Areas 298 14.7 %

Total 2017 100 %

Hour of The Day	Hit	Percent
0	9	0.44%
1	29	1.43%
2	9	0.44%
3	8	0.39%
5	10	0.49%
6	13	0.64%
7	17	0.84%
8	67	3.32%
9	77	3.81%
10	62	3.07%
11	44	2.18%
12	54	2.67%
13	139	6.89%
14	100	4.95%
15	512	25.3%
16	521	25.8%
17	87	4.31%
18	62	3.07%
19	27	1.33%
20	33	1.63%
21	45	2.23%
22	66	3.27%
23	26	1.28%
Total Users Accesses 2017		100%

Day of The Week	Hits	Percent
Sunday	72	3.56 %
Monday	208	10.3 %
Tuesday	670	33.2 %
Wednesday	169	8.37 %
Thursday	652	32.3 %
Friday	213	10.5 %
Saturday	33	1.63 %
Total Day Accesses 2017		100 %

#### User Hits Percent

Administrator, CourseInfo

103 5.10%

Bradley, Claudette 367 18.1%

Groat, Katherine 183 9.07%

Groat, Todd 136 6.74%

Groat, Mary 180 8.92%

Ortis, Joe 446 22.1 %

Pungowiyi, Barbara 188 9.32%

Reyes, Maria 391 19.3 %

Pungowiyi, Barbara 8 0.39 %

[Some names of persons accessing the course site have been deleted.]

*Retrieve Statistics: 0.06865 seconds*

*Filter Statistics: 0.06699 seconds*

*Recalculate Statistics: 0.051794 seconds*

*Graph Statistics: 0.470989 seconds*

*ED\_F693\_F01\_F00: Integrating Technology Into the Curriculum*

*Maria Reyes, Instructor*

*Announcements*

*Course Information*

*Staff Information*

*Course Documents*

*Assignments*

*External Links*

*Assessment Manager*

*Pool Manager*

*Online Gradebook*

*Course Statistics*

*Online Manual*

*Contact Sys Admin Join ListServ*

*Online Support*

*Create/Enroll User*

*Modify User*

*Remove User*

*Create Group*

*Modify Group*

*Remove Group*

*Send Email*

*Course Calendar*

*Discussion Board*

*Digital Dropbox*

*Communication*

*Course Options*

*Student Tools*

*Course Utilities*

*6 Course Users      2043 Tracked Accesses*

*Full Detail: Enabled   Disabled*

## Appendix E

### INSTRUCTOR INFORMATION FROM BLACKBOARD [DOES NOT INCLUDE PHOTOS OF INSTRUCTORS]

Current Location: Staff Information

-----  
Professors Claudette Bradley and María Elena Reyes

Address: See information below.

Office Hours:

Claudette [ffceb@uaf.edu](mailto:ffceb@uaf.edu)

Maria [ffmer@uaf.edu](mailto:ffmer@uaf.edu)

#### Other Information:

For mathematics and science: Claudette Bradley, Ed.D [907] 474-5376, UAF School of Education, 125 HPR, PO Box 75696 Fairbanks, AK 99775-6480, Fax [907] 474-5208, For

English and social studies: María Elena Reyes, Ph.D., [907] 474-7696, UAF School of Education, GR 704B, PO Box 75696, Fairbanks, AK 99775-6480, Fax [907] 474-5451,

-----  
Associate Professor Claudette Bradley  
Email: [ffceb@uaf.edu](mailto:ffceb@uaf.edu)  
Phone: 907-474-5376  
Address: UAF Interior-Aleutians Campus  
PO Box 756720  
Fairbanks, Alaska 99775  
Office Hours: By Appointment

-----  
Assistant Professor María Elena Reyes  
Email: [ffmer@uaf.edu](mailto:ffmer@uaf.edu)  
Phone: 907-474-7696  
Address: GR 704B, UAF Campus  
Office Hours: M/W, 10-12, or by appointment

**Other Information:**

Ph.D., Curriculum & Instruction, University of Texas-Austin, 1991 M.Ed., Secondary Education, Sul Ross University, 1988 B.A., Cum Laude, English/sociology, University of Texas-Pan American, 1973

**Appendix F**  
**SURVEY DATA**  
Computer Literacy Questionnaire  
ED 693, Fall 2000

**Question 1**  
**How many distance education courses have you taken?**

<b>Katherine</b>	<b>48</b>	<b>0.5</b>	
<b>Todd</b>	<b>45</b>	<b>0.9</b>	
<b>Mary</b>	<b>43</b>	<b>0.8</b>	
<b>Barbara</b>	<b>11</b>	<b>1.4</b>	
<b>Joe</b>	<b>3</b>	<b>1.9</b>	
<b>Count</b>	<b>5</b>		
<b>Average</b>	<b>30</b>		
<b>Min</b>	<b>3</b>		
<b>Max</b>	<b>48</b>		
<b>Var</b>	<b>452</b>		

**Question 2**  
**How many courses have you taken that used interactive technology?**

	<b># Courses</b>	<b>Where?</b>	<b>When?</b>
<b>Barbara</b>	<b>1</b>	<b>ED 693</b>	<b>fall 2000</b>
<b>Katherine</b>	<b>3</b>	<b>School District &amp; ED 693</b>	<b>Once a month, since Sept 2000 for the District courses</b>
<b>Joe</b>	<b>1</b>	<b>ED 693</b>	<b>fall 2000</b>
<b>Mary</b>	<b>1</b>	<b>ED 693</b>	<b>fall 2000</b>
<b>Todd</b>	<b>1</b>	<b>ED 693</b>	<b>fall 2000</b>
<b>Count</b>	<b>5</b>		
<b>Average</b>	<b>1.4</b>		
<b>Min</b>	<b>1</b>		
<b>Max</b>	<b>3</b>		
<b>Var</b>	<b>0.8</b>		

**Question 3**  
**Do you think that you learned the course content in a more effective manner when using interactive technologies as part of the course?**

<b>Barbara</b>	<b>yes</b>	<b>The assignments were practical and hands-on (contextual)</b>	
<b>Katherine</b>	<b>yes</b>	<b>It was effective. I was able to apply most of the intelligences.</b>	
<b>Joe</b>	<b>yes</b>	<b>It is a far more effective mode of communication.</b>	
<b>Mary</b>	<b>yes</b>	<b>It helps to share with others.</b>	
<b>Todd</b>	<b>N/A</b>	<b>N/A</b>	

**Question 4**

**How many distance education courses have you taken where you prepared a PowerPoint presentation? How many? When?**

<b>Barbara</b>	<b>1</b>	<b>Ed 693 Fall 2000</b>		
<b>Katherine</b>	<b>2</b>	<b>District Tutorial Oct 2000 &amp; Ed 693 Fall 2000</b>		
<b>Joe</b>	<b>1</b>	<b>Ed 693 Fall 2000</b>		
<b>Mary</b>	<b>1</b>	<b>Ed 693 Fall 2000</b>		
<b>Todd</b>	<b>1</b>	<b>Ed 693 Fall 2000</b>		

**Question 5**

**Do you plan to use PowerPoint in classroom preparation or in professional presentations?**

<b>Barbara</b>	<b>yes</b>			
<b>Katherine</b>	<b>yes</b>	<b>I plan to use them in, my classroom and if I ever have to do a presentation I will use PowerPoint.</b>		
<b>Joe</b>	<b>yes</b>			
<b>Mary</b>	<b>yes</b>			
<b>Todd</b>	<b>yes</b>	<b>I presented a PPT unit plan to the 4H Fisheries Program for 1 credit.</b>		

**Question 6**

**If you have used PowerPoint in your classroom, do you think your students learned the material presented in a more effective manner? Explain.**

<b>Barbara</b>	<b>yes</b>	<b>It is analytical (performance) &amp; contextual (project)</b>	
<b>Katherine</b>	<b>yes</b>	<b>I believe the students experienced what I did, wonder and able to process information somewhat like their favorites: games, video games, high interest</b>	
<b>Joe</b>	<b>N/A</b>	<b>N/A</b>	

<b>Mary</b>	<b>N/A</b>	<b>N/A</b>	
<b>Todd</b>	<b>yes</b>	<b>A lot of my students are visual learners.</b>	

**Question 7**

**Do you or will you require your students to learn to use PowerPoint in their presentations?**

<b>Barbara</b>	<b>yes</b>	<b>It is a tool that everyone should use.</b>
<b>Katherine</b>	<b>yes</b>	<b>My students will be aware of its uses and will work on a presentation of their own.</b>
<b>Joe</b>	<b>N/A</b>	<b>Effective Communication Tool.</b>
<b>Mary</b>	<b>yes</b>	<b>I think it will lend itself well to science lab write-ups.</b>
<b>Todd</b>	<b>yes</b>	<b>As a group we can do one together.</b>

**Question 8**

**Do you think that using PowerPoint and Internet combined with audioconferencing enhanced the delivery of the course content in Ed 693? Why or Why not?**

<b>Barbara</b>	<b>yes</b>	<b>We needed to learn how to use computers and not everyone learns by drill &amp; practice (pencil &amp; paper)</b>
<b>Katherine</b>	<b>yes</b>	<b>I think if the course is continued it will.</b>
<b>Joe</b>	<b>yes</b>	<b>It gave the students a chance.</b>
<b>Mary</b>	<b>yes</b>	<b>I enjoyed the feedback and constructive criticism from the other classmates.</b>
<b>Todd</b>	<b>yes</b>	<b>Because we have a lot of interaction. I especially liked the blackboard.</b>

**Question 9**  
**How would you rate the use of PowerPoint in creating an effective presentation for your classroom?**

	Rate 1-5	Meaning
<b>Barbara</b>	<b>5</b>	<b>Very Effective</b>
<b>Katherine</b>	<b>5</b>	<b>Very Effective</b>
<b>Joe</b>	<b>5</b>	<b>Very Effective</b>
<b>Mary</b>	<b>4</b>	<b>Effective</b>
<b>Todd</b>	<b>3</b>	<b>Somewhat Effective</b>

**Question 10**  
**What did you like most about this course, ED 693?**

<b>Barbara</b>	<b>Using Interactive Technology</b>				
<b>Katherine</b>	<b>I thought that it was going to be different. I have never take a class from either Dr. Reyes</b>				
	<b>or Dr. Bradley before and didn't know how receptive they were to a non-math major student.</b>				
	<b>I think that was my biggest worry: a math teacher and English Professor plus the palm</b>				
	<b>sweating, scary idea of taking a computer class. Integrating is what...</b>				
<b>Joe</b>	<b>Being exposed to the programs I had never used before</b>				
<b>Mary</b>	<b>The PowerPoint Instruction</b>				
<b>Todd</b>	<b>Blackboard</b>				

**Question 11**  
**What would you suggest to improve the course, ED 693?**

<b>Barbara</b>	<b>Better rural access.</b>					
<b>Katherine</b>	<b>N/A</b>					
<b>Joe</b>	<b>Maybe expose the students to more software</b>					
<b>Mary</b>	<b>Using the unit lesson plans in the classroom and sharing the results.</b>					
<b>Todd</b>	<b>Be patient - the technology is not as good out here; it's slow.</b>					

**Question 12**  
**Would you recommend this course to other teachers? Why or why not?**

<b>Barbara</b>	<b>yes</b>	<b>They need it.</b>				
<b>Katherine</b>	<b>N/A</b>	<b>N/A</b>				
<b>Joe</b>	<b>yes</b>	<b>It is a very fun an...</b>				
<b>Mary</b>	<b>Yes</b>	<b>I think PowerPoint has its merits.</b>				
<b>Todd</b>	<b>yes</b>	<b>The other teaches could share ideas and their Favorite Links...</b>				