This paper focuses on the rewards and pitfalls of offering an online Technology in Education program. The program structure, administrative support needs, student readiness issues, evaluation process, student benefits and concerns, logistics, technical needs, and teaching issues relating to offering an online program are presented. Concrete examples from a graduate level class titled "Technology and Special Needs" are discussed, including assignments, responding to and tracking assignments, accessing readings, providing equipment, Web resources and online conferencing. (Author)

Reproductions supplied by EDRS are the best that can be made from the original document.
Rewards and Regrets: An On-line Technology in Education Master’s Degree Program

Joan Thormann, Ph.D. Technology in Education
Lesley College, Cambridge, MA USA
thormann@mailiesley.edu

Abstract: This paper focuses on the rewards and pitfalls of offering an on-line Technology in Education program. The program structure, administrative support needs, student readiness issues, evaluation process, student benefits and concerns, logistics, technical needs, and teaching issues relating to offering an on-line program are presented. Concrete examples from a graduate level class titled Technology and Special Needs will be discussed including assignments, responding to and tracking assignments, accessing readings, providing equipment, web resources and on-line conferencing.

Teachers’ time is in short supply thus earning a master’s degree program which is offered in an on-line format may be just what a motivated adult learner needs. Lesley College offers an 11 course on-line master’s degree program in Technology in Education in three formats:
1. Traditional on campus full semester format
2. Intensive weekend format
3. On-line format

All three programs have their foundation in Lesley’s Technology in Education program which was one of the first such programs in the country, providing leadership in the field and has evolved over the past 15 years.

Cohort Groups

We have found that one of the strengths of the off campus intensive weekend format is the bond and positive learning environment created by students enrolled in the program as a cohort. In the cohort model students are able to learn a great deal from each other and create a community of learners that often extends beyond the master’s degree program. Based on experience with the cohort model, on-line students are encouraged to enroll in the on-line program as part of a cohort group. In the cohort group students get to know each other on-line by working on projects together, reading each others assignments and by exchanging information about the part of the world in which they live.

Whether joining with a cohort or not, students who enroll in the on-line program may earn a master’s degree in Technology in Education. Those who join a cohort group may complete their degree in two years by taking two classes per semester for 5 semesters and one class in the final semester. Other students chose to take fewer classes per semester or skip the summer semester and earn the degree at a slower pace.

Application Process

To enroll in the on-line program, students need to submit and follow standard Lesley College Graduate School application procedures. In addition they are required to take an on-line readiness survey which is currently posted on the web at http://www.lesley.edu/online_learning/readiness/home.html

The readiness survey helps to insure that students have the requisite equipment necessary to complete assignments, the predisposition and schedule to enroll in an on-line program and technical skills including web navigation, email and conferencing capabilities. We ask students to reflect on these requirements before they
actually enroll in any of the on-line class. This allows students, in part, to self-select whether or not the on-line format is a feasible learning model.

**Administrative Supports**

To serve students effectively the program requires administrative supports which include a director, a program assistant and ideally an individual to provide technical support for hard to solve problems for both faculty and students. A budget for hardware, software and copying is needed as well as shipping costs to cover the cost of sending materials to students. Most materials are sent to students by courier service which allows the administrative staff to track materials easily if they are lost in transit.

**On-line Program Benefits**

The Lesley College On-line web page summarizes some of the advantages of enrolling in an on-line program. The benefits of an on-line program are numerous. Students have more flexibility over when and where work is done, learn about technology by using technology, and are given the freedom to pursue their own ideas independently. Groups of students interact and establish a community of learners in what turns out to be thought-provoking on-line discussions held in both small and large group formats. Since there are no location constraints, students work with colleagues from many locations which helps to broaden their view as to how technology is used in many different types of educational settings. The on-line courses offer a student-centered structure with the faculty member acting as a facilitator, allowing students to guide their own learning.

Based on Lesley College's nationwide and now worldwide reputation, students have the opportunity to work with educators and others from around the world who have similar interests. This interaction enriches the learning experience by providing the opportunity to learn from faculty as well as from colleagues. Being able to compare and contrast ideas and technology implementation from around the world enhances student skills and perspectives. (Lesley College, 1998)

**On-line Program Student Concerns**

From evaluations and feedback from students, we have learned about some of the difficulties that enrolling in an on-line program present. Students expressed a variety of concerns about being enrolled in an on-line program. The amount of email is often daunting since all of the “classroom” interaction takes place on-line. Students are dependent on technology. For example, if they lose their Internet Service Provider (ISP), students have difficulty keeping up with their course assignments. The difference between a face to face class and an on-line class becomes apparent in terms of feedback for students. Due to the volume of written material feedback from
the instructor can be delayed by a few days and of course there are no visual cues to reassure students that they are on the right track. (Yoder, Ferris, & Thormann, 1998)

**Student Evaluations**

At the end of each course students electronically submit an evaluation that is sent out and collected by administrative staff. After processing the evaluations, administrative staff pass evaluations on to the program director and instructor. This staff member insures anonymity by removing the student’s name from all evaluation before they are passed on to faculty. In addition, evaluations are only given to faculty after course grades are submitted. These evaluations have proved invaluable in helping to make the on-line program more viable and work better for the students and faculty.

**Technology and Special Needs On-line Course**

The *Technology and Special Needs* class offers students the opportunity to think about, and have experience with use of technology to benefit students with special needs. Students enrolled in the on-line program are given assignments that are to be completed within a one or two week period. All completed assignments are posted on a password protected bulletin board area on Lesley College’s web server.

**Class Interactions**

As part of their course work students are asked to read and comment on each others assignments. Students and faculty select an alias screen name and register the name with a campus support staff person. In this way, the course content is discussed and students have the opportunity to interact. The aliases allow discussion participants, and particularly faculty, to comment on what has been posted without the reader being biased by the comment-writer’s status or background.

**Class Assignments and Readings**

The assignments were developed to provide variety in learning approaches. The formats include individual, paired, and small and large group assignments. Readings are assigned for most assignments and are required to be referenced. Most readings are web based either through URLs or full text articles from databases that Lesley College has a license to use. A few readings that are useful and are not available on the web are sent via mail to students. There is also a required text book which students may purchase from Amazon.com or any other text book vendor. Some assignments involve web based research and readings not listed in the on-line syllabus.

**Introduction Assignment**

For one of the first week’s assignment the students are asked to introduce themselves and also to reflect on their own experiences with students or individuals with special needs and share this on class bulletin board area. Students are required to read these introductions and interact with classmates about their experiences.

Specifically they are asked to identify the two individuals in class whose last name comes alphabetically before and after their last name. Students are to ask a question about what their classmates wrote in their introduction assignment and to respond to questions they are asked by classmates. This activity serves as an ice breaker for the students thus, they use their real names rather than an alias. The introduction is an example of one of the activities in which we ask students to interact with each other.
Small and Large Group Assignments

Another example of a class assignment involves selecting and working with a partner to investigate a disability area to discover how technology is used to support the learning of students who have a particular disability. In addition, a large group assignment is given in which the class is divided in half. They select roles based on cooperative learning principles. The roles include the following:

a. Team Leader will coordinate roles and tasks and lead the discussion to develop a list of common illnesses and guide discussions using some of the suggestions in the LISC activity.

b. Team Analyzer will collect all the data and develop categories.

c. Team Recorder will create a spreadsheet or database file and enter the data.

d. Team Synthesizer will analyze the data after it has been entered in the spreadsheet or database

e. Team Reporter will write a report about the data and send it to the other

f. Team Responder will receive the other team’s report and respond to it

g. Team Checker will make sure that people have submitted all the information they need and make sure information is being shared as the activity proceeds

h. Team Visionary will help team members examine the data in other ways and help establish timelines.

In this role-based assignment students work cooperatively to collect data for an activity that is drawn from the curriculum, *Literacy in a Science Context*, (Grant, Storeyguard, Thormann & Weir, 1996) developed at TERC in Cambridge, MA and published by ASCD. *Literacy in a Science Context* is a technology-based human physiology curriculum designed for an inclusive classroom environment. Once students collect the data, they need to organize it, analyze it, write a report, exchange the data with the other half of the class and then respond to the report from the other class. This activity gives on-line students the opportunity to not only read about technology based inclusive activity but experience it.

Online Guest Speaker

To add further variety to the on-line format, we have students interact with a “guest speaker” who has a disability and uses technology to assist him in his work and private life. This activity helps students understand how technology can help an individual with special needs. To complete this assignment the student must ask at least one question and read all the other questions from their classmates and answers from the guest speaker. The students email their questions to the guest speaker and the entire class via email using an address book. The guest speaker responds to the question using the address book so that everyone builds and learns from the questions asked and the guest speaker’s answer. Students are required to read all the questions and answers so that when they ask a question it addresses a new areas for everyone involved in the conversation.

Individual Assignments

The students are also asked to work on projects independently which involves conducting a case study and investigating and writing a report on a topic related to technology and special needs. To complete assignments students read web based articles and web resources identified by the instructor and those identified by the students. The class web page contains links to many of the on-line articles and other web resources. http://www.lesley.edu/faculty/thormann/speldonl.htm
Assignment Check List

To help inform students that we have received their assignments we post an assignment check list on the web. After each assignment is read and accepted an "X" is put in the student's column to indicate that the assignment has been accepted. If student assignments are unacceptable the faculty member sends an email message with an option for the student to redo the assignment with specific directions for changing the content of the assignment.

Conclusion

The Technology and Special Needs course has been offered twice, summer and fall of 1998. We are constantly refining the course and thinking up new assignments and interactions. Thus far, students and faculty have had a successful experience with this course. The students who have enrolled in the program as part of the cohort seem to have benefited, in part because they are self directed learners and the program is designed for independent learners. The first cohort of students will graduate in the spring of 1999. We plan to have an elaborate on-line graduation celebration for these students.


NOTICE

REPRODUCTION BASIS

☐ This document is covered by a signed "Reproduction Release (Blanket) form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

☐ This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").