

Supporting Teacher Training Programs with an Electronic Reserve System (ERes)
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One of the most conspicuous recent developments in education, particularly at the college and university level, has been the proliferation of on-line, or web-based courses. Many colleges and universities offer on-line instruction and there are even some institutions where it is possible to complete an entire degree program on-line (e.g. University of Phoenix, Indiana State University, Michigan State University, and University of Colorado). Drury University, located in Springfield, Missouri, has joined in this movement by developing and delivering on-line web-based instruction, beginning in 1999.

While there are many advantages to on-line instruction (ease of scheduling, convenience, lower cost) there are also numerous concerns (the quality of instruction, lack of interaction with faculty and fellow students, technical limitations). This article examines a bridge between an on-line course and traditional classroom based instruction. Software developed by Docutek Information Systems, Inc. (www.docutek.com) has enabled faculty members at Drury University and over 220 other institutions of higher learning to utilize the best of both worlds. This software is ERes v4.1 and has been in use at Drury University since the beginning of the 1998-99 academic year.

ERes Systems in the literature

ERes is short for electronic reserves. ERes systems have helped to shape the teaching and learning environments of higher educational institutions around the world. Kesten and Zivkovic (1997) described ERes as a stand-alone system that used intuitive, point and click interfaces along with context-sensitive help. This eliminated the need for extensive technical training in order to use the system. Dugdale (1999) highlighted the scarcity of resources in academic libraries as well as pressures from growing student populations and the introduction of new

pedagogical processes as the main reasons for the rise of ERes systems. Major institutions in the United States, such as Kent State University have also utilized ERes (Kristof & Klinger, 2000). One possible limitation of ERes systems revolves around the issue of copyright infringement. An excellent article showing how Portland State University resolved this conflict is found in Anderson and DeMont (2001). One exciting application for the future is described by Rodoni, Bertone, and Estella at Santa Clara University in Santa Clara, California. These students acknowledge the current limitations of ERes allowing students and faculty the ability to search for course information only at their own institution. They conceptualized the creation of a collaborative function within the ERes system enabling students and faculty to search for course material from other universities as well as their own. This will provide a powerful tool for faculty collaboration and virtual learning (available on-line www.cse.scu.edu/projects/1999-00/project_6/index.htm).

Rationale for Incorporating ERes

One of the problems with traditional classroom based instruction is the limitation of time. Students are expected to be in class at a certain time and to remain there until the class period is over. Professors are expected to have posted office hours and be available to their students. All of this depends upon time and physical proximity. It results in a synchronous dilemma. If the student or professor cannot be at a certain place at a certain time, then instruction and/or mentoring and advising cannot take place. What is needed is an asynchronous system. Better yet, a combination of the two.

The advent of email has made communication between students and professors a much easier task. It has limited the need for synchronous interactions. With email, a student can communicate with the professor from anywhere at anytime. This is the basic premise also of on-

line web-based education. The student and professor conduct their business in an asynchronous fashion. The lessons are posted to web sites and the student views the material at his/her leisure.

What about the student whose technical limitations (whether personal or computer) interferes with the learning process? What about those students who need the social interaction that comes from traditional classroom based instruction? Fortunately, the issue is not an either/or proposition. There is a middle ground, or bridge between the synchronous and asynchronous methods of teaching. This is the domain of ERes.

With the ERes system, a professor can make available on-line any information they wish. While students and professors interface in the traditional classroom environment, professors can also post messages for students to view when they access the ERes page, or students and professors can participate in an on-line chat room. These components provide for an educational experience that combines both in-class interaction and instruction (synchronous) and out-of-class (asynchronous) activities that are available anytime.

Drury University and Teacher Education

Drury University is a private, liberal arts university, established in 1873. Drury offers numerous programs of study, including teacher education. Drury operates from two main campuses, in Springfield, Missouri and also Fort Leonard Wood, Missouri with smaller, state-wide satellite campuses in Rolla, Lebanon, Ava, Stockton, and Cabool. Students wishing to be certificated to teach in Missouri can take introductory education courses at any of the satellite campuses, or they can complete their degree at either Springfield or Fort Leonard Wood.

In order to facilitate teacher training Drury University faculty have begun utilizing the ERes system to provide students with necessary materials and asynchronous communication

abilities. Drury University has made a commitment to provide current technological tools to students.

Many of the students at the satellite campuses would be considered non-traditional. A majority have job and family responsibilities and are taking courses at night to complete their education. Many of these students are older with varied work experiences. Since most of these students commute to class once or twice a week from a significant distance, it is difficult to schedule appointments with the education faculty members. The dilemma of balancing family and job responsibilities on the one hand, with limited time for student-faculty interaction on the other, requires special attempts at intervention. One way of facilitating a balance is through ERes.

Specific examples of teacher training facilitation

During the spring semester 2001, one course (EDUC 382 Teaching Methods of Elementary Science) was conducted using ERes. On this ERes page the following items were posted: course syllabus, scoring guides, lesson plan templates, a link to the Teacher Education Department homepage at Drury University, and pictures. Other functions of the ERes page included the capability of posting announcements, discussion boards, chat rooms and links to education resources, the university library, and university homepage.

The students in EDUC 382 were required to write lesson plans each week. There were ten specific lesson plan areas that had to be addressed. The students used the lesson plan template provided by the professor, or available on the ERes page and then emailed the completed lesson plan to the professor. This lesson was then downloaded from the email server and uploaded to the ERes page where it was placed in the proper folder. This is one of the limitations of ERes.

Students do not have the ability to post material directly to the page, this is the responsibility of the professor teaching the course.

Students have the ability to view and download any of the submitted lesson plans by entering a password. In this fashion the students not only had the opportunity to hear and see the lesson plans as they were presented in class, but they could also access them later for use in their own classrooms. The EDUC 382 ERes page for the Spring semester 2001 is still available to students and contains over 300 science lesson plans for download. This is a tremendous resource.

In the fall semester 2001, other education department courses have been set up on ERes. These include EDUC 200 Technology in the Classroom, EDUC 338 Elementary School Curriculum and Instruction, and SCI 620 Advanced Technology in the Classroom. Education courses using ERes are being conducted at both the Fort Leonard Wood campus as well as at Rolla. At the Springfield campus ERes pages have been created for use by most of the university departments.

While there are other programs and software available for faculty-student interaction, including some very high powered and sophisticated systems such as WebCT or BlackBoard 5.02, or Web-Mediated CourseAssistant (Web-MC) at Florida State University, what is sometimes needed is simply a way for faculty and students to interact without a great deal of extra features. ERes provides for the posting and downloading of information without requiring extensive training. While not containing as many “bells and whistles” as other programs, it meets the needs of education students at Fort Leonard Wood and Rolla.

Steps for creating an ERes page

As Kesten and Zivkovic (1997) pointed out, the creation of an ERes page does not require extensive technical ability. The process is quite simple and can be accomplished in a

matter of minutes. The faculty member wishing to create an ERes page must have a valid email account with the university. The following steps are followed to create an ERes page:

- From the Drury University library page click on the ERes icon.
- Click "Create a Course Page"
- Enter your username and password
- Enter number of instructors teaching the course
- Fill in course number, course name, and term
- Supply course information and password
- Verify course information
- Click on "Page Management"
- Choose the appropriate action you want to take
- Upload any files you would like to have appear on your page
- Repeat the process for any other actions desired

Process for students

The process for accessing an ERes page is very user-friendly. The student must have access to an Internet connection. After connecting to the Internet and opening the Drury University library homepage, the following steps are required to access ERes:

- Click on the ERes icon
- Click on "Electronic Reserves and Course Materials"
- Look up the appropriate course page by searching by department or by instructor
- Click on the appropriate course name
- Enter the password for the course
- Choose the appropriate action desired

Subsidiary benefits

There are numerous advantages to using the ERes system. The obvious advantages include ease of communication with the instructor and convenience for students with limited time. Some subsidiary benefits of using the ERes system are that students gain experience using technology and have a wealth of information at their disposal. Since the use of Eres requires students to use email to send their assignments to the instructor they become accustomed to utilizing technology in the classroom. This includes preparing their lessons using a word

document template, sending email, and preparing attachments. All of these activities help students become more familiar with using technology in an educational setting. While this is taught at Drury University in the EDUC 200 course, using ERes on a regular basis reinforces these skills.

Drury University seeks to train teachers who have a liberal arts background while at the same time are knowledgeable concerning technology. By using the ERes system, graduates of Drury University enter the profession with the benefit of face to face interaction in their course work and with the ability to utilize on-line instruction as well.

Bibliography

- Anderson, J. and DeMont, L. (2001). Treading Carefully Through the Murky Legalities of Electronic Reserves. *Computers in Libraries*. 21 (6), 40-45.
- Dugdale, C. (1999). The Role of Electronic Reserves in Serving and Shaping New Teaching and Learning Environments in Great Britain. *Journal of Information Science*. 25 (3), 183-192.
- Kesten, P. and Zivkovic, S. (1997). ERes-Electronic Reserves on the World Wide Web. *Journal of Interlibrary Loan, Document Delivery, and Information Supply*. 7 (4), 37-48.
- Kristof, C. and Klinger, T. (2000). Kent State University's Electronic Reserves Experience. *Journal of Interlibrary Loan, Document Delivery, and Information Supply*. 11 (1), 39-49.
- Rodoni, J., Bertone, M., and Estella, T. (2000). Virtual Learning and Collaboration using ERes. Available on-line www.cse.scu.edu/projects/1999-00/project6/index.htm