

## Facing the Reality of Demand for Online Courses: Challenges and Alternatives

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### Introduction

The Internet is the most significant communication technology used in distance education in the recent past (Harry & Perraton, 1999). On-line courses allow flexibility of access to learners from anywhere at anytime (Cole, 2000). The Internet provides ample opportunities to facilitate two-way communication between the educator and the learner at a lower cost compared to many other distance education delivery modes. There is a growing demand for the distance education graduate programs (Wilson & Moore, 2004). Meeting this growing demand for distance education is a real challenge. What is the current enrollment trend in on-line graduate courses in Agricultural and extension education? What are the challenges in teaching on-line courses? What are the alternatives in facing these challenges? Finding answers to these questions is the focus of this research poster presentation.

### Conceptual Framework

The quality of learning is determined by the design of the instructional materials and not by the delivery medium (Rovai, 2002). Learning is the heart of any instructional design. Therefore, instructional materials should be developed based on educational theories to promote learning (Ally, 2004). Effective learning is learner centered, knowledge centered, assessment centered, and community centered (Bransford, Brown, & Cocking, 1999). The effective online teacher “is constantly probing for learner comfort and competence with the intervening technology, and providing safe environments for them to increase their sense of Internet efficacy (Anderson, 2004).”

### Methodology

This is a situational analysis to identify trends, challenges and alternatives in delivering on-line courses. The following two steps were adopted to collect data for this study. First, the student enrollment records were used to track the number of students enrolled in the on-line section as well as the number of students enrolled in the on-campus section of the graduate courses in agricultural extension education offered between 2001 and 2007. Percentage of students enrolled in each of the section was plotted in a chart against time to identify the enrollment trends. Second, the instructors who taught those online courses were interviewed to identify the challenges they faced and alternatives they adopted in teaching on-line courses.

## Results

- The number of students enrolled in online graduate courses offered by the department has increased over the past five years. Parallel to this trend, the number of students enrolled in on-campus sections of the same graduate courses has declined.
- Getting acquainted with the communication technology is a challenge for instructors and students. Still, some rural students do not have fast access Internet. This situation limits the use of large multi-media files in delivering courses.
- Designing interactive learning materials is a challenging task. The materials designed for online courses should be descriptive enough to help students understand the content. Use of new soft ware is the best solution to facilitate synchronous teaching and learning.
- Time demand for designing and delivery of online courses is a challenge. Instructors will have to manage time demand with scheduling flexibility.
- Conducting tests is a challenging task for instructors and students. Use of proctors, on-line testing software programs or open-book exams are the possible alternatives. The use of testing soft ware programs can contribute to test anxiety.

## Conclusions

The student enrollment in graduate courses offered by the Department of Agricultural and Extension Education at the North Carolina State University is shifting from on-campus to online. The real challenge is how to design and deliver educational materials to simulate in-class learning environment for online students. Building synchronous communication link between the educator and the learner is an alternative for creating an in-class learning environment. New software applications have been developed that may increase the interactivity of on-line learners with the instructor and other students in real-time. Further advances in technology may eliminate this interaction gap altogether. Some students do not have fast access Internet. This is an important limitation in selecting online teaching materials.

## Recommendations

Agricultural educators should be prepared to meet the growing demand for on-line graduate courses in agricultural and extension education. This can be achieved by understanding online learner needs and designing educational resources accordingly. Since some of the students still do not have fast access Internet, it is important to avoid large media files to minimize downloading problems. Use of new information technology to establish a synchronous teaching and learning environment and designing and delivering interactive learning materials are some practical steps to be successful in teaching online courses.

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