Teaching, Researching, and Applying Biotechnology in Mexico -
Applying Online Learning Technologies to Meet Project Goals

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Introduction

Collaboration is one of the most important and effective means of transferring knowledge. This project focuses on collaboration between Texas A&M University and Mexican institutions on biotechnology, an issue and concern that mutually impacts Texas and Mexico. The project is designed to provide training to enhance the skills of research and teaching faculty at universities in northeast Mexico. Biotechnology is a relatively new field of science. Simply stated, it is the practice of genetically modifying organisms and cells to perform specific useful tasks in a predictable and controllable way. While information about it is exploding, this information can lead to misinterpretation about the real benefits and risks of genetically modified organisms. The goal of this project is to enable university professors in USAID-assisted countries across the world to teach objectively about biotechnology, conduct research on biotechnology, and apply biotechnology to alleviate poverty.

Purpose & Major Points to be Shared

This poster presentation will describe the activities involved in developing, piloting, and testing an informal education program that is based on a case study approach for enhancing the capacity of a leadership team of faculty members from three universities in northeast Mexico to teach about, conduct research on, and apply biotechnology on problems of high priority related to food, agriculture, and the environment. Specifically, the poster will depict the three overlapping phases that make up the project: Phase 1 – Orientation to Biotechnology and Hands-On Laboratory Experiences, Phase II – Application and Follow Up via Technology Assisted Learning, and Phase III – Sharing and Expanding with Other Educational Institutions.

Conclusions and Educational Importance

Combining hands-on training and online training offers new approaches to enhancing teaching and learning effectiveness, meet the needs of learners, and reach broader audiences. The educational importance of this poster focuses on two distinct areas: the significance of teaching faculty how to objectively instruct about biotechnology and the unique approaches of using blended approaches (online and hands-on training) to instructional design to deliver both primary and supplementary instruction.