Chapter III

Developing Technology-Based Education for Adult Learners in Micronesia:
A Case Study for Learning Engagement in Diversity

Lucyann Kerry, University of Guam, USA

Abstract

The purpose of this chapter is to present the project work and experience of developing post-secondary distance education in a challenging and diverse setting where the author has been involved in the design and implementation of the technology-based education. The experience of the project demonstrates how challenges for generating engagement with Web-based online courses can be met and overcome. Online learning activities were analyzed in light of student feedback. This feedback, collected over the length of the project, indicated the positive and negative factors for the design, execution and revision of the online learning environment. These factors, to strengthen and reinforce learning, were judged successful in contributing to student achievement in meeting course and program learning objectives. The chapter concludes with a more general discussion of relevant development issues. This work is supported by a review of relevant literature.
Introduction

As distance education in the form of technology-based higher education expands globally, it offers new learning opportunities to under-served, more diverse populations of students. With trans-border, international choices in education growing through greater transmission capacities and educational entrepreneurship, new alliances and relationships are taking place between traditional educational institutions and the developing world (Potashnik & Capper, 1998). The western Pacific, also known as Micronesia, is one such region. It is being confronted with new possibilities for higher education while at the same time having limited resources. Spanning 3,000 miles of Pacific Ocean with scattered islands and a dispersed population of 300,000, its major urban center is the island of Guam, a United States (U.S.) territory. Learning engagement is considered an initial stage to actual learning, the internal process, evidenced by learning performance outcomes. This need is driven by the North American model of education and its educational trends, which the region uses as its basis for educational standards. However, because of ongoing questions and issues regarding the nature of the educational market demand, cost effectiveness, the prioritization of limited resources and how best to address pressing societal needs, the allocation of resources and efforts for developing and offering technology-based education should have clear justification as meeting the region’s educational goals.

This chapter proposes a preliminary strategic approach to address the above challenges as a starting point for further work. This strategy is the result of the research and experience generated by a 3-year project based at the University of Guam (UOG) developing online courses for students in Micronesia. The courses were developed and offered by UOG with its regional partners, Palau Community College (PCC) and the College of Micronesia – Federated States of Micronesia (COM-FSM). The initial target population of regional students was agriculture teachers needing a degree qualification. The university developed online courses in the agriculture sciences that were part of its bachelor’s degree program in secondary education emphasizing agriculture. The courses developed by PCC were for general education requirements in math, English and science that articulated or transferred between the institutions as prerequisites for UOG’s degree program. The initial pilot course that served as the development model for the other courses was UOG’s Introduction to Agriculture, AG101.

Research data was generated from the participants through observation, course performance assessment, surveys and interviews. The long-term societal goal of the project was to promote increased food production for the region. This was to be attained through an increased agriculture knowledge base for students of the region’s tertiary and secondary educational systems. Thus, the U.S. Department of Agriculture (USDA) funded the project through its Higher Education Challenge Grant Program. Course development was subsidized by government and was not funded as an investment in educational products for an entrepreneurial global market. This is an important distinction to be made, since there are misconceptions and myths about the profitability, revenue stream or cost-savings value for investing in distance education and technology-based education (Bates, 1997).