

## Chapter 5.2

# Developing Culturally Inclusive Educational Multimedia in the South Pacific

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### ABSTRACT

This chapter explores how educational technology can be developed according to indigenous learning approaches of the South Pacific. It is based on an expansive research and development project conducted 2003-2004 at The University of the South Pacific (USP). After an introduction to several aspects of indigenous South Pacific learning approaches and their usage in the formal learning sector, I make several recommendations for instructional technology design based on these principles, illustrated with examples of educational technology projects that apply these recommendations. Specifically, we follow educational multimedia efforts at USP that enable learning in wholes, encourage observation and imitation and utilize vernacular metaphors and languages. This includes recommendations for interface design, interaction design and decentralized content localization.

### INTRODUCTION

Information technology plays a vital but contentious role in tertiary education in the South Pacific. Although many students must rely on information technology for higher education, there are concerns regarding the intrinsic cultural biases of, and unbalanced access to, educational technology in the region (Matthewson, 1994; Thaman, 1997; Va'a, 1997; Wah, 1997). Approximately half of the 15,000 students of The University of the South Pacific (USP) study through USP's Distance and Flexible Learning (DFL) Centers, a network of mini-campuses in 12 island-nations (Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu) linked through VSAT satellite (USP DFL Unit, 2004). These students negotiate audio and video conferences, Web-based group activities, interactive CD-ROMs, video broadcasts of lectures, email, faxes and even CB

radio as they communicate with their teachers and fellow students.

While educational technology offers distance students a higher degree of interaction with their educational materials, lecturers and fellow students, it can also introduce additional cultural biases into their already imported education system. The cultural gaps between USP's formal education system and the diverse South Pacific cultures of USP's staff and students has been widely documented (Lockwood, Roberts, & Williams, 1998; Thaman, 1997; Va'a, 1997, 2000; Wah, 1997). Closing these gaps through culturally inclusive curricula and pedagogy has become an institutional priority. Recently, the University's focus on culturally relevant pedagogy has broadened to include the instructional design of educational technology.

As part of this initiative, The University of the South Pacific Media Centre, with funding from the Japan International Cooperation Agency (JICA), completed a project that examined how educational multimedia can be designed according to the learning approaches of the South Pacific. In the study (Robbins, 2004), we captured the views of Pacific educationists through a series of interviews and a review of academic literature covering indigenous pedagogy in the South Pacific. We conducted interviews, employed questionnaires and usability tests with staff and students from the 12 member-nations of USP to find applications of regional learning approaches to the development of educational technology and built an educational CD-ROM to audit and illustrate the findings.

In this chapter I outline several recommendations and applications of these findings, focusing on how educational multimedia can be made culturally relevant to the South Pacific.

The goal of this chapter is not only to enable technological fluency by helping developers create educational multimedia designed specifically for the region, but also to ensure that the technology promotes indigenous approaches and values, rather

than submerging them under dominant technological hegemonies.

## **PEDAGOGIC FOCUSES FOR EDUCATIONAL TECHNOLOGY DEVELOPERS IN THE SOUTH PACIFIC**

This chapter concentrates on three regional pedagogic focuses relevant to educational technology in the region:

1. Enable learning in wholes (Thaman, 1992; Yorston, 2002);
2. Encourage observation and imitation (Lima, 2003; Pagram, Fetherston, & Rabbitt, 2000; Taufe'ulungaki, 2003; Thaman, 1999; Yorston, 2002); and
3. Utilize vernacular metaphors and languages (Afamasaga, 2002; Pagram, Fetherston, & Rabbitt, 2000; Taafaki, 2001; Taufe'ulungaki, 2003; UNESCO, 1992).

Enabling learning in wholes, or preserving "the big in the small," arises time and again as a key component of South Pacific learning approaches (Mel, 2001; Harris, 1992; Thaman, 1992; Yorston, 2002). The key concept is that rather than segmenting learning activities into distinct conceptual units, ideas are approached as they can be applied within the context of larger tasks (Thaman, 1992; Yorston, 2002). In other words, rather than master each step consecutively, learners witness and then imitate the whole, attaining the desired goal through trial and error (Mel, 2001). To preserve the whole, complex activities are tackled as "successive approximations" of the final product rather than as "sequenced parts" (Harris, 1992, p. 38). For example, in learning a musical piece using this method, a band would play the entire piece through until they had mastered it, as opposed to repeating individual refrains.

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