Culture, Interaction, and Online Learning

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INTRODUCTION

Technological innovation and the development of global knowledge-based economies are presenting higher education institutions throughout the developing world with both opportunities and challenges. The development of *distance education* has particular relevance for remote and widely distributed locations. The scattered geography of the South Pacific has produced immense variations in culture amongst a relatively low population base. This makes the South Pacific an ideal region in which to explore the impact of *cultural differences* on online learning. Online learning offers the developing countries of the South Pacific the chance to open up access to even the most distantly located students. This research evaluates the effectiveness of *e-mail* as a mechanism for encouraging *Web-based interaction* among students in two distance education institutions with a culturally and geographically diverse student body.

LITERATURE REVIEW

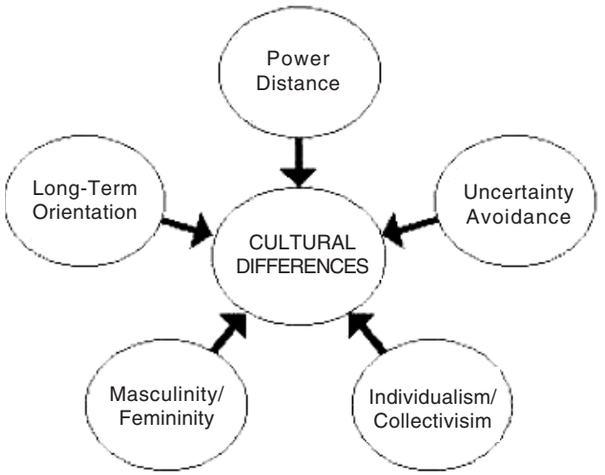
Several researchers have discussed the importance of interactivity in distance education. For example, Kearsley (2000, p. 78) suggests that "a high degree of interactivity and participation is the most important role of the instructor in online classes." Wilkinson & Thomas (1991) found that infrequent interaction with instructors was among the reasons given by students for not completing distance education courses.

Brennan, McFadden & Law (2000, p. 8) have noted the importance of addressing culture directly in distance education coursework design: "Cultural needs and cultural differences need to be taken into account at every phase of the design and delivery of online materials and support if courses and learning content are to meet learner needs."

Cultural differences and online interaction is an active research area. Chase, Macfadyen, Reeder and Roche (2002) reported on differences in online exchanges between culturally diverse students and teachers. Their findings suggested that attitudes towards person-to-person communication using new communications technologies vary greatly between cultures. Marinetti and Dunn (2002, p. 2) suggest that "although learners in Chile, Zimbabwe, Australia, Switzerland and the Ukraine might all be wearing Nike trainers, listening to U2, eating burgers and browsing on Internet Explorer, the key aspects of their cultural identity—including how they learn—remain fundamentally different."

Students from Asian and Western cultures have different Web-based learning styles (Liang & McQueen, 1999), and Scandinavian students demonstrate a more restrained online presence compared to their more expressive American counterparts (Bannon, 1995). Differences were also found across cultures in online compared to face-to-face discussions (Warschauer, 1996). Student engagement, discourse and interaction are valued highly in "western" universities. With growing internationalization of western campuses, increasing use of educational technology both on and off campus, and rising distance learning enrollments, intercultural frictions are bound to increase.

Figure 1. Hofstede's model of cultural differences



RESEARCH QUESTIONS

Subjects were drawn from business information systems and computer information technology classes at the University of the South Pacific and Central Queensland University. Three research questions were addressed:

1. Does cultural background affect the extent to which distance education students use e-mail to communicate with educators and other students for academic and social reasons?
2. Does cultural background affect the academic content of e-mail messages from distance education students?
3. Does cultural background influence distance education students' preference to ask questions or provide answers using e-mail instead of face-to-face communication?

MODEL-BUILDING

There have been a number of papers that have examined the impact of cultural diversity and group interaction in *computer-mediated communication* environments (Jarvenpaa & Leidner, 1998). Hofstede's (1991) well-known model categorizes different cultures according to five pairs of dimensions (Figure 1).

Though Hofstede's model has come under criticism for taking a rather static view of culture, it still provides a useful starting point for exploring the influence of cultural backgrounds (Holden, 2002, Myers & Tan, 2002). For this research, the focus was on the dimensions of individualism vs. collectivism, and high power distance vs. low power distance. These two dimensions were considered to have the most impact on learning style; the individualism/collectivism dimension will affect the way students interact with their peers, and the power distance dimension will influence the way they interact with their professor.

Hofstede's work indicated there was a strong correlation between a country's national wealth and the degree of individualism in its culture. Richer countries tend to have an individualistic style, whereas poorer countries are more collectivist. As a poorer country becomes wealthier it tends to move towards an individualistic pattern. Additionally, people from a rural background tend to be more collectivist than those from an urban background (Hofstede, 1991).

These two cultural dimensions provide the basis for the learners' behaviour and responses; they also affect the way the teacher operates. A teacher from an individualistic culture will tend to reward students for class activities that involve individual initiative and expression; a teacher from a collectivist culture will place more value on activities that reinforce existing social connections and norms (Ziegahn, 2001). In an individualist culture, a common teaching method might be for an individual student to present a paper in front of the class. Such an approach may be unfamiliar to students from a collectivist culture, where decisions about who leads a discussion are normally based on such factors as age, gender and status.

A number of recent publications have reviewed aspects of the development of IT in the South Pacific (Davis, McMaster, & Nowak, 2002; Olutimayin, 2002; Purcell & Toland, 2004); however, no research has yet been published that maps Hofstede's model on the many South Pacific cultures. Lynch, Szorengi and Lodhia (2002) have explored Hofstede's framework with respect to Fiji, hypothesizing where the indigenous Fijian population and the Indo Fijian population would fit on the framework; however, they are still in the process of collecting empirical evidence to validate their theories. This research