

# The Effect of Cultural Differences and Educational Technology on Distance Education in the South Pacific

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## INTRODUCTION

Innovations in information and communication technologies (ICTs) and the development of global-knowledge-based economies are presenting higher-education institutions throughout the developing world with both opportunities and challenges. New opportunities for remotely located institutions are opening up, but the challenge is to ensure that these innovations can be utilized in a culturally appropriate manner at the local level. Despite a relatively low population base, the scattered geography of the South Pacific region has resulted in wide cultural variations between the different island groups. This makes the South Pacific an ideal region in which to explore the impact of cultural differences on online learning. This research investigates the opportunities offered by online learning; the focus is on the use 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.

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?

## BACKGROUND

Cultural differences and online interaction is an active research area. The literature is broad and scattered and often focuses on the social effects of interactions, including online community building (Winiacki, 2003). 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.

A Brazilian online learner wrote: "My perceptions of behavioral norms included being a listener and nurturer, rather than a critical thinker... I held assumptions about learning that were characterized by a teacher-centered approach with the design of instruction controlled by the instructor and learner performance influenced by the consent of the authority figure." (Conceição, 2002, pp. 37-45).

Dunn and Marinetti (2002) 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."

Fay and Hill (2003, pp. 9-27) were concerned with understanding the connection or intersections of the larger (culturist) and the smaller (operationist) dimensions of online distance-education cultures designed and taught from one cultural perspective to another,

and warned of the dangers of “the inter-institutional ‘transplant’ of courseware (with inherent ‘tissue rejection’ risks)”. In a study of culturally diverse distance learners, Lauzon (2002) found that “a sense of marginalization, sometimes even alienation, was palpable.” Students experienced dissonance out of conflict with the dominant educational culture. Merryfield (2003) used “cultural consultants” to assist with her online global education course at a university in the U.S. found that they increased the participating international learners’ sense of engagement and transactional presence.

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)

Although not exhaustive, Hofstede’s model has been widely used, and it 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 that there was a strong correlation between a country’s national wealth and the degree of individualism in its culture. Richer

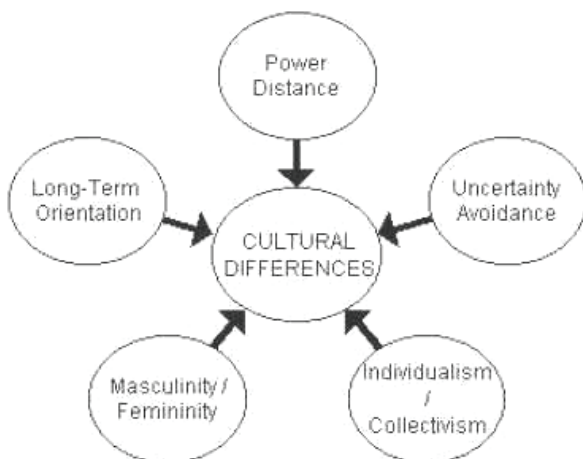
countries tend to have an individualistic style, whereas poorer countries are more collectivist. As a poorer country becomes wealthier it tends to move towards an individualistic pattern. Additionally, people from a rural background tend to be more collectivist than those from an urban background. Countries that fall into the low power distance, individualist category are Australia, New Zealand, North America, England, and Scandinavia, countries in Asia, India, and South America would be considered high power distance and collectivist (Hofstede, 1991).

If a country is collectivist, it is also likely to exhibit characteristics of a high power distance country, where the views of senior people tend not to be questioned. Pacific Island people are in the high power distance category with their system of chiefs and their tradition of not questioning the chief’s decision. South Pacific society is also collectivist with the custom of “Kere Kere” or not being able to refuse a favor that is asked of you by a member of your own in-group.

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). Thaman (2000) discusses the “Pacific way of learning,” which is based on a cooperative approach. 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. Different online learning tools may lend themselves to different cultures, for example, the collaborative nature of a wiki may be more suitable for a collectivist culture (Robbins, 2006)

There have been a number of recent publications reviewing aspects of the development of ICT in the South Pacific (Davis, McMaster, & Nowak, 2002, Olutimayin, 2002, Purcell & Toland, 2004, Robbins, 2006), however, no research has yet been published that maps Hofstede’s model on the many South Pacific cultures. Lynch, Szorengi, & 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 frame-

*Figure 1. Hofstede’s model of cultural differences*



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