# Chapter 5.14 The Cross–Cultural Dimensions of Globalized E–Learning

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## ABSTRACT

This exploratory study examined the effects of cross-cultural learning dimensions on e-learning outcomes for employees in functionally equivalent jobs in Western and Eastern cultures. Participants from the United States and India completed a Level 1 e-learning course designed in the United States. In addition, randomly selected completers then reported their interactions with the e-learning course in a survey. Learners from the two cultures achieved equitable learning outcomes, suggesting that characteristics of Level 1 e-learning courses mediate the effects of culture. In addition, while cross-cultural dimensions did appear to affect learners' preferences for and perceptions of e-learning, both Eastern and Western participants were willing to try new approaches to learning that did not align with their cultural profiles. Based on these results, the cultural adaptation process (CAP) model is presented as a preliminary guideline for adapting e-learning courses for other cultures. Accelerated dissemination of Level 1 courses could increase technological literacy. Education and technological innovation are strongly associated with advanced socio-economic development.

## INTRODUCTION

The term *globalization* gained currency in the 1970s as Western corporations rapidly expanded into other parts of the world (Jarvis, 2002), accelerating cross-cultural exchanges (Walker & Dimmock, 2002). Industrial anthropologists have identified *cross-cultural dimensions*—categories

of characteristics across which cultures can be compared and contrasted—such as how members of a culture communicate, perceive time, or view themselves in relation to the environment. As e-learning options proliferate and globalization continues, an expanding audience of learners is more likely to encounter courses created by another culture. Most e-learning courses are designed in Western cultures; however, the largest and fastest-growing consumer groups live in Eastern cultures such as China, Japan, and India (Van Dam & Rogers, 2002). Educators will thus be challenged to provide e-learning opportunities that result in equitable learning outcomes for targeted cultures.

*Learning outcomes* were defined by Henderson (1996) as any results that reflect the acquisition of skills and knowledge, the effectiveness of instructional techniques, and students' perceptions or attitudes. Educational practitioners have begun to apply the concepts of cross-cultural dimensions to instructional design, presuming that adapting courses to suit the cultural profiles of learners will generate equitable learning outcomes. However, empirical research has neither conclusively supported nor disproved them. The purpose of this study was to better understand the effects of cross-cultural dimensions on e-learning in the globalized environment.

## **RESEARCH QUESTION**

The problem is: "Are e-learning courses designed in a Western culture equally effective when used in an Eastern culture?" The research questions used to address this problem were as follows:

- 1. When taking an e-learning course designed in a Western culture, do participants from Eastern and Western cultures experience *equitable learning outcomes*?
- 2. Do they have different *preferences for or perceptions of* e-learning?
- 3. If there *are* strong similarities or significant differences in learning outcomes between the two cultures, in participants' use of features, or in their preferences or perceptions, are these similarities or differences *related* to the cross-cultural dimensions described in the literature?

## **REVIEW OF THE LITERATURE**

According to a United Nations Development Program report (UNDP, 2001), the most developed, progressive, and economically stable countries in the world are those that are technologically advanced. Technological change and the building of human capabilities are interrelated: Each requires the development of the other for success. Thus, the UNDP report promoted "rethinking educational systems to meet the new challenges of technology" (2001, p. 84) through improved technology and technological education at a global level.

Domestically, providers of e-learning will be challenged to accommodate increasingly culturally heterogeneous audiences of learners. In 1997, 36% of students in the United States were from non-dominant ethnic groups, yet 86% of new teachers were white, and only 3% of teachers spoke a second language (National Center for Educational Statistics, as cited in Carter, 2000).

From an instructional point of view, incompatibilities between the cross-cultural characteristics of e-learning courses and learners could cause inequitable learning outcomes (Henderson, 1996). For example, members of cultures may prefer to learn in a particular manner (Gardner, 1989; Horton, 1999), or they may have specific approaches to problem solving (Lave, 1988; Soh, 1999) and creativity (Gardner, 1989). Or, a pedagogical paradigm espoused by one culture could alienate or confuse targeted learners (Hall, 1981), as could unintentional cultural biases in instructional design (McLoughlin, 1999).

## **Theoretical Foundations**

Hofstede (1984, 1997, 2001), Trompenaars and Hampden-Turner (1998), and Hall (1953, 1981) identified and characterized cross-cultural dimensions at the national level, primarily with respect to corporate business and communication. While they posited the probable effects of many of these dimensions on education, Gardner 11 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-

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