GLOBALIZED E-LEARNING CULTURAL CHALLENGES

ANDREA EDMUNDSON

Chapter VIII

Theorizing a Multiple Cultures Instructional Design Model for E-Learning and E-Teaching

Lyn Henderson
James Cook University, Australia

Abstract

This chapter demonstrates the inadequacy of multicultural and internationalization instructional design models as the solution for equitable outcomes in the learning, credentialing, and employment stakes in the 21st century. Internationalizing learning and teaching eclipsed multiculturalism as the acclaimed strategy when Western universities entice international non-English-speaking-background students to their campuses or offer degrees to such e-learning students who reside in their own countries. Global and Western businesses establishing niches in overseas countries also use the concept of internationalizing their e-learning materials for the cultural training of staff. In their place, a theoretical model of multiple cultures provides the rationale and strategies for creating and adapting e-learning resources for local, national, and international e-learning contexts.

Introduction

The multiple cultures model (Henderson, 1996) accommodates a variety of combinations of cultures and pedagogies, and academic, industry, and government contexts. Broadly interpreted, culture is the way of life of a people. It is the manifestation of the patterns of thinking and behavior that results through a group's continuing adaptation to its changing social, historical, geographic, political, economic, technological, and ideological environment. Culture incorporates race, ethnicity, religion, class, gender, values, traditions, language, lifestyles, and nationality as well as workplace and academic cultures (Hofstede, 1996; Terpstra & Sarathy, 2000). E-learners[1] and e-teachers[2] belong and participate in more than one culture but demonstrate subsets of these in specific cultural contexts.

For better or worse, the Western model of academic research, writing protocols, and publication standards has become global academic currency. Thus the term, "global academic culture," will be used to reflect these and other common practices, such as credentialing degree programs. Likewise, regardless of the differences in managing businesses in various countries, our globalized economy with its multinational industries has been significantly boosted by international free trade rationales and practices and, in consequence, values global cultural practices. Within this economic culture resides a global culture of training and professional development of staff to work more effectively within specific national and international business cultures. The same situation applies in government so that there is, in effect, a global bureaucratic culture that offers e-training and e-professional development within each bureaucracy's own cultural context. Instructional design of e-learning and e-teaching materials based on the multiple cultures model enables instructors to empower, extend, and enrich the learner's culturally-specific knowledge and ways of thinking and doing by achieving a praxis between these and the demands of particular academic, industry, and government global cultures.

Three major issues are explored to substantiate the benefits of the multiple cultures model of instructional design, which has been utilized, especially in Australia, the United States, Canada, and Singapore. They include the limitations of multicultural or internationalization models; the parameters of the various benefits of a multiple cultures model that accounts for various ethnic, class, gender, academic, and workplace sub-cultures in the design of e-learning materials; and designing and adapting e-courses to incorporate behaviorist, constructivist, and social constructivist e-learning and e-teaching.

Limitations of Multicultural and Internationalization Models

As argued previously (Henderson, 1996), how instructional design of e-learning and e-teaching takes cognizance of multiculturalism and internationalization is exemplified by focusing on the ways it includes and excludes issues of culture. What continues to be

experienced on a global scale can be identified as a culturally-blind or unintentional exclusion of issues of culture that result in exclusionary and culturally-homogeneous educational e-learning resources. The result can be, for instance, the universalization of Western or corporate knowledge and culture as natural, necessary, and, in effect, beyond criticism. This chapter challenges this stance.

"Multiculturalism," "cultural diversity," and "cultural pluralism" have not worked, either in Western societies' educational systems or, in particular, the development of e-learning materials delivered to culturally-diverse learners (Edmundson, 2003, 2004). If they had changed the status quo, there would be no need for this book. The "localization of internationalization" of e-learning resources is the new buzz concept. Such learning materials contain localized elements of international teaching and training materials. However, like multiculturalism, it has largely adopted a "soft" approach that does not challenge the status quo. One outcome is the focus on the "etiquette," "feel good," and "exotic" areas of the targeted culture.

Such e-instructional design would include some or all of the following. It is common to include relevant etiquette customs in the materials, such as using both hands when accepting a business card from East Asians and to engage in non-business conversation before commencing the meeting's agenda. Traditions, such as arranged marriages, dress, festivals, myths, and legends are interesting to learners and are usually included in curricula. Other obvious "must include" items are those involving graphics (for example, not using five-sided stars as a rating system because they have religious significance, Hutchinson, Rose, Bederson, Weeks, & Druin, 2005); preferred color schemes (e.g., "some parts of Chinese culture see people marrying in black and being buried in white," Fiesner & Hart, 2005, p. 85); language (not relying solely on the online automatic translations of English into the targeted language or vice versa as they can be too literal and therefore inaccurate, Hutchinson et al., 2005; Tractinsky, 2000); and a right-hand Web navigation menu for those whose writing system is right to left. Such inclusions are not inappropriate *per se*. Indeed, they are crucial and need to be included (Friesner & Hart, 2004; Henderson, 1996; Hutchinson et al., 2005; Voithofer, 2004). However, they are problematic if they are cosmetic, tokenistic, and/or stereotypical (Henderson, 1996).

Tokenism

Tokenism is another instructional design issue that can be found in e-learning resources. In an attempt to localize the courseware, superficial cosmetic changes, such as modifications to the coloring, hair, or eyes of graphic characters and incorporation of the targeted e-learner's music with roll-over menu items or pop-up glossaries, "risk becoming one more example of cultural arrogance—apartheid in a glitzy plastic dress" (Andrews, 1995, p. 8). In fact, Hedberg and Brown (2002) warned that "catchy homepages" using pop-ups, animation, and graphics intended to grab attention could produce the opposite result because "grammar is context specific in Chinese languages so that the student builds up a picture of the meaning of symbols as the text is being read" (Friesner & Hart, 2004, p. 84). Perhaps age and familiarity with variously designed Web sites may be confounding factors.

However in a multiple cultures model, an online Web site would not eschew examples of attention-grabbing animation or pop-ups at relevant points in the online materials, especially when a needs analysis cannot be administered due to an inability to obtain information directly from intended e-students in time for development to occur. Needless to say, the inclusion would be purposeful rather than cosmetic. Thus animation would have a cognitive function, such as tracking economic trade routes or exemplifying a concept such as a community of practice within an e-learning/e-teaching multiple cultures context. In the same vein, a pop-up window would not have a function that was trivial, nor would it cover any text content on the Web page to which it was related. For instance, if a pop-up window were used as a glossary, then it would appear in a margin left empty for that purpose. Another function of the pop-up window would be to present a researcher's point-of-view to a text-box interaction question into which the student had just typed in an answer and clicked the finished button. The researcher's answer would end with a metacognitive activity that required the student to compare and contrast their answer with that of the instructor and post their conclusion with justification to the online discussion forum. Attention to such sound pedagogic practices is integral to an effective multiple cultures model, and as it should be to multiculturalism and internationalization.

In that case, why are these examples not just instances of good pedagogic practice? Although "attention grabbing" Web elements are part of business, educational, and personal Web sites in the students' countries, researchers advised e-instructional designers that Chinese e-learners' understanding could be adversely affected if the elements were used in educational Web materials. Hence, if use of these Web elements were judged through a multicultural or internationalization lens, then they would not be programmed into the e-materials because it was an easy "soft" decision to make for reasons of equity. However, with the multiple cultures model, both conditions would be weighed and found in favor of *cognitive* attention-grabbing design and equitable learning experiences for all Chinese e-learners, those who were most likely to be adversely affected and those who would not be unfavorably influenced.

Another example of tokenistic internationalization, particularly talked about in the corridors at international conferences, is the inclusion of an article from anyone with an Asian (or Middle-Eastern or Eastern European) family name, regardless of the specific nationality of the targeted students or the quality of the article, and see such practices as adequately meeting appropriate internationalizing requirements. To take any such tokenistic practices out of this category would be an assessable critique of that token, in this example it would be the article.

Stereotyping

Even with a growing body of literature to draw upon (Faiola & Matei, 2005; Friesner & Hart, 2004; McCarty, 2005; Ng, 2002; Tjitra, 2000), the following types of cultural stereotyping in developing and teaching cross-cultural e-courses can be exposed: (a) the Asian learner is a rote learner and benefits more when a course is structured with step-by-step instructions (Tjitra, 2000); (b) students in East-Asia, ex-Soviet Eastern European, and Middle-East Islamic countries do not challenge authority, including that of an

author; (c) students from such cultures are individualist competitors due to endemic credentialing; and (d) consequently they are passive and accepting of what is delivered. A reason for instances of such stereotypes can be found in any student group and therefore used to justify globalized e-teaching and e-learning practices and materials that are culturally centric.

Hence "educators should be cautious about stereotyping students based on nation of origin or a static notion of culture" (McCarty, 2005, p. 1; Tylee, 2002), including religion (as the aftermath of September 11th has demonstrated). Komiyama (in press; cited in McCarty, 2005) informed her readers that, regardless of age, Japanese peer groups are "raucous (but) reserved with those of different status" (p. 1) and their social constructivist collaborative group work was successful. Neo (2005) and Wesley-Smith (2003) replicated Komiyama's finding with Malaysian and indigenous Hawaiian higher education students, respectively. Kennedy (2002) provided a fascinating systematic overview of traditional interpretations of the Chinese learner counterbalanced by recent re-interpretations as well as when, how, and why these were confirmed or contradicted in his study of the preferences of Hong Kong adult Chinese learners. To be read in conjunction with Kennedy's work, Chan and Elliott (2000) published an exploratory study of Hong Kong Chinese teacher education students' world views with the aim of resolving conceptual and empirical issues. Epistemologic issues for Brunei Darussalam vocational students caught between tradition and modernity, and ethnic identity superceding religion for teenagers in Kosovo and Macedonia, are explored by Minnis (2000) and Babuna (2000), respectively. Such research is mandatory reading for global e-learning instructional designers as well as both e-instructors and, especially when implementing a multiple cultures model, their e-students. With respect to the latter point, Singaporean and Vietnamese Chinese e-learners would be required to compare and contrast Kennedy's findings with their own experiences.

Yet there remains a complexity when editing e-courses with respect to stereotyping. Two examples will suffice.

First, Australian educators are taught that indigenous students prefer working in groups. However, Henderson and Putt (1999) revealed that adult indigenous students elected to work alone when the content was new (for example, a critical theory examination of the relationship between class and education) and then revise together. Reasons had to do with cultural cognition, specifically, privacy, control over pacing, preventing shame if the answers were incorrect, testing their own thinking, and, as one student explained, not wanting to waste time with a peer who knew as little as she did (Henderson & Putt, 1993). In contrast, they preferred working together when the content was familiar (for example, teaching primary school math) as they would be operating from an informed knowledge base. In current-traditional learning, the learner approaches the person who possesses the relevant knowledge and who will give precise information devoid of extraneous or doubtful content (Henderson & Putt, 1999).

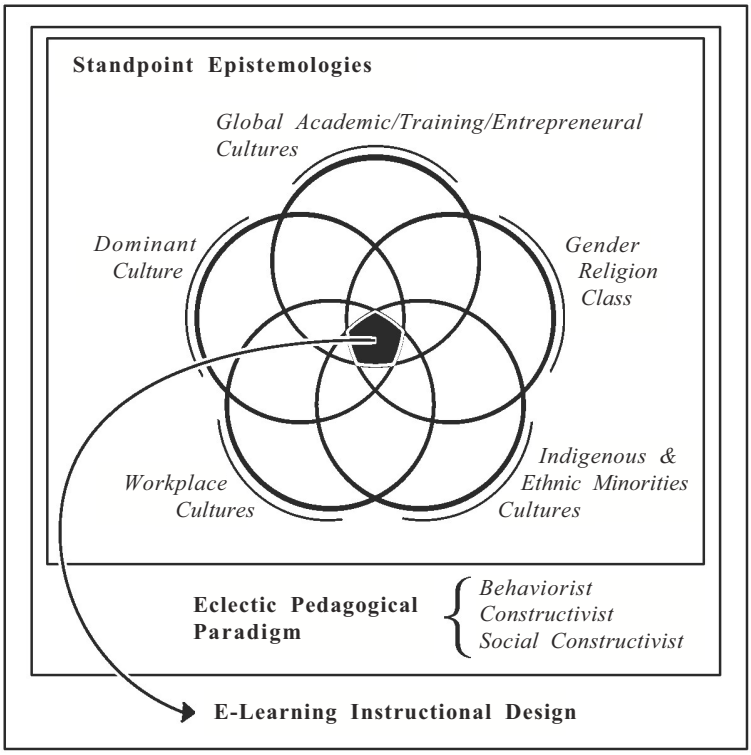
The second example involves a successful Master of Education e-course that is edited for each new intake of e-learners within urban, rural, and remote areas of Australia and Canada in order to acknowledge their various professional work and "in-house" learning cultures (armed forces; health; government; middle management; professional sport; and schools, colleges, and universities). Attentive avoidance of the stereotyping

mentioned above occurred when editing the e-course for a blended learning context (face-to-face with online discussion forums and blogs) with Singaporean Malay and Chinese students. Part of the assessment was an oral critique of various authors' work. In a previous blended course, they had conducted paired seminars with aplomb. However, during the presentations, a visible level of anxiety was noticed. During feedback and debriefing, the students informed the instructor that this was the first time they had had to critique in public. The students had a mental model that a seminar describes, clarifies, and contrasts various authors' theses, while a critique demands positive and negative criticism of the author's work. They contended that they would have been only a little less anxious if their critique had been via the discussion forum or blog. Critique within an essay was the least threatening as it was just between student and instructor. Given this, should an oral or online critique be avoided? In line with the multiple cultures model the answer would be a resounding, "No!" Regardless of the teaching mode, acknowledging cultural cognitive styles (Faiola & Matei, 2005; Nisbett & Norenzayan, 2002; Nisbett, Peng, Choi, & Norenzayan, 2001), or as referred to in this chapter as cultural ways of thinking and doing, calls for scaffolded modeling by the instructor in ways that escalate the students' entry into this form of assessment over time. This constructivist practice advocates that the e-instructors collaborate to produce a mapped sequence of induction into assessable tasks among the e-courses. As exemplified later in the chapter, the multiple cultures model argues that all e-learners be provided with opportunities to master various academic tasks that are a valued part of a global academic culture for reasons of equitable outcomes.

Multiple Cultures Theoretical Model for E-Learning

One of the major problems with the multicultural and internationalization models is their avoidance of the cognitive, pedagogic, and epistemological aspects of the various cultural educational contexts. An alternative way to conceptualize the cultural contextualization of instructional design of e-learning is a multiple cultures model (Figure 1; also see Henderson, 1993, 1996; Wild & Henderson, 1997). Researchers (Collis, 1999; McLoughlin, 1999; Ng, 2002; Ngeow & Kong, 2002; Ziguras, 2000) confirmed the workable premise of a multiple cultures model through tweaking it for their own contexts. Indeed, Calder (2000), Yonkers (2003), and Lea (2003) delineated the inherent differences in organizational cultures, academic cultures, training cultures, and teaching and learning pedagogies between and, crucially, within each of these differing cultural groups. Both Yonkers' (2003) and Lea's (2003) work stressed that for worthwhile outcomes, a critical business strategy to achieve employee training or delivery of off-shore academic qualifications does not simply target political, religious, and national differences. Fundamentally, to achieve sustainable learning outcomes, a mix and match between the global academic or training cultures and those of the e-learners is called for in developing and implementing the multiple cultures model. Otherwise, the result could well be a

Figure 1. Multiple cultures theoretical model



misguided "dumbed-down," rather than challenging, selection of academic content and assessment types and requirements.

The multiple cultures model of e-learning delineated in Figure 1 strives for a coherent interplay among the various cultural logics: global academia or training cultures; the majority societal epistemologies of the e-learners and those of indigenous and ethnic minorities; issues of gender, class, religion, age, kinship, politics, and various workplace cultures; and pedagogies. Instructional design aims for a coherent partnership among these in the e-learning and e-teaching context, whether it is local, national, or global.

Epistemology and Standpoint Epistemologies

In Figure 1, the inner section of the diagram contains the epistemologies or worldviews of the various cultural players in the e-learning instructional design paradigm (Henderson, 1996). Two examples will suffice to help clarify the concept.

The first example is that of Confucian dynamism (Hofstede, 1996). This epistemology is apparently shared by Chinese e-learners from differing parts of Asia and other countries and who maintain aspects of Confucian Heritage Cultures (Smith, 2001). It is perceived to include characteristics such as a "strong bias towards obedience, the importance of rank and hierarchies, the need for smooth social relations" and the importance of

education (Friesner & Hart, 2004, p. 83) coupled with individual materialistic pursuits (Zhu & He, 2002). Further to this and the previous discussion of avoiding stereotyping, Cheng (2000) pointed out that the Chinese term, "knowledge," consists of two characters: "One is 'xue' (to learn) and the other is 'wen' (to ask) (p. 441). Thus the e-learning goal for students whose world view is that of Confucian Heritage Cultures would be "to cultivate oneself as an intelligent, creative, independent, autonomous being" (Lea, 1996, p. 34). This means that, because epistemologically the quest for knowledge involves both acquiring and questioning information (Cheng, 2000), then the multiple cultures e-learning materials would have this built into the tasks and assessment.

Another example is a gaping difference between Australian non-indigenous and indigenous epistemologies. The former, which is common to Western societies, encompasses the belief that knowledge (information) is "the birthright of every individual. This value is not negated by the fact that it is not followed in practice where power, privilege, and the law limit an individual's right and ability to access information" (Henderson, 1996, p. 97). One of the components of aboriginal espistemologies is the notion that all knowledge is owned. However some knowledge is owned, private, and non-negotiable while other knowledge is owned individually or jointly and is negotiable. "Knowledge belongs to or 'owns' the people without the 'owner' having to be personally responsible for the origin of that knowledge (West, 1993; referencing this information highlights the fact that, in Western epistemologies, the source has to be acknowledged)" (Henderson, 1996, p. 97). Gaining knowledge is not a right but a privilege. Currently, some youths are not initiated into certain knowledge because the elders do not believe that they would take appropriate custodial care of that knowledge. Aboriginal and Torres Strait Islander[3] artists do not have the right to use the traditional symbols, stories, dances, and songs of other indigenous Australians, even at a wedding or for a school activity, without permission to share those traditions. This is in contrast to non-indigenous artists who believe they have artistic freedom to take inspiration from anywhere and anyone (McDonald, 1993).

Consequently the multiple cultures model caters for the epistemologies of global, national, and minority cultures (Figure 1). In so doing, it privileges the standpoint epistemologies of individuals and groups in the various cultures, but ensures particular cognizance of those whose worldviews lose out in the implementation of soft multicultural and soft internationalization instructional design. For instance, depending on whether it were industry, government, or higher education, the e-resources in multiple cultures instructional design would include articles, videoed lectures or talks, and activities from the differing epistemologies of: management and lower-rung employees; right-wing and left-wing politicians; Islam, Hindu, and Christian followers; first generation immigrants' maintenance of traditional customs compared with their peers back in their homeland who have changed in step with the 21st century; and, what is sometimes lost sight of in the globalization of e-learning materials, between gender and class in various ethnic groups within and between nations (Figure 1).

As Harel and Papert (1991) pointed out, standpoint epistemology caters for "epistemological pluralism" as it does not presume that any one epistemology is incontrovertible. The various ways of constructing knowledge are acknowledged, and learners are prompted to query those epistemologies in the construction of their own knowledge (Haas & Steiner, 2001; Harding, 1986). Instructional design advocates of standpoint

epistemology would challenge e-learners to consider: How is a particular epistemology socially, politically, and economically constructed and for what purposes (Koo, 2001)? Do standpoint epistemologies provide greater emancipatory, social, and educational validity than merely a range of perspectives and theories? What is the impact of Asian, Indonesian, European, Russian, Australian, Middle Eastern, African, or The Americas colonialism and post-colonialism on people's ways of knowing, their views of whom and what they are, and what they consider worthwhile to teach and to learn (Alcoff, 2003; McConachy, 1999; McLaughlin, 1999; Pizarro, 1998; Thaman, 2003)? How do various epistemologies or world views (for example, Western, indigenous, Latino, Middle Eastern, or Asian) reveal themselves, for instance in mathematical, medical, technical, or social theories and solutions? A fundamental ingredient of e-education would include activities centered on these sorts of queries. Through such an approach as exemplified here and in the next sections, the various multiple cultures delineated in Figure 1 are made visible and debatable.

Global Academic Cultures

The e-learning multiple cultures model needs overtly to incorporate the specific requirements of academic cultures (Figure 1). These are expressed through the following culturally-specific ways of promoting cognitive development in colleges and universities: the content to be taught, the types of assessment required, and the written, online, and oral genres to be mastered. Currently, world academic cultures are based on Western academic parameters, and it is therefore inescapable when delivering global e-learning courses and post-graduate degree programs. An instance of the importance is the Israeli situation where publications in their first language, Hebrew, do not count for university promotion. Another instance is the Chinese government's economic, political, and educational mandatory policy on learning English in schools and its impetus for university students to obtain Western English language higher degrees (Friesner & Hart, 2004).

Societies' Dominant Culture

The inherent cultural imperialism in this global academic culture, plus the fact that any country's academic culture is embedded within that society's dominant culture (Figure 1), means that e-learning materials need to include exploration of the systemic issues to do with power, control, and disadvantage. These aspects are usually missing from, or superficially treated in, multicultural models. For instance, a comparative examination of the information rich and information poor in global, national, and within-national contexts and the various programs targeting redress is of importance in educational situations. At a recent symposium on information and communication technologies (ICTs), a representative of the World Bank presented a fascinating talk that included funding a local university professor's (Mitra, 2005) "hole-in-the-wall" computer project in a poor rural area of India. The keynote speaker went on to describe how a self-taught illiterate orphan boy living on the street was called on by his community to fix the

computer's glitches. Significantly, there was no mention of the project's provision for that boy's education or, for that matter, any of the other poorest boys and girls who now had some computer skills but nowhere to go with them as they were not attending school. The status quo was not challenged during the speaker's presentation.

Indigenous and Ethnic Minorities[4]

Drawing on the multiple cultures needs analysis survey, the answers would inform e-instructional design by incorporating the multi-racial/ethnic cultures in particular societies so that relevant parts of their culture's knowledge and preferred ways of thinking and doing are incorporated in a manner that goes beyond tokenism. A constructive practical implementation is overtly acknowledging the various e-learners' significant traditions and customs by not scheduling assignment due dates at times of special religious observances. Another would be setting an activity in economics or business e-courses that demonstrated certain principles or practices through an example involving indigenous peoples' economic exporting enterprises (e.g., Aboriginal Exporters Directory http://www.dfait-maeci.gc.ca/foreign_policy/aboriginal/business/business-en.asp). In this case, the multiple cultures model would be best served by not drawing further attention to the indigenous enterprises as the content for an activity, unless an e-learner wished to discuss or research the indigenous aspects further. If this occurred, it would naturally become an extra online forum discussion topic. The positive impact of the assessment task as originally described on the e-learners and e-instructor (if different from the content specialist) would be powerful because the instructional design presents the indigenous business example as if it were a regular part of an e-course and thereby renders it legitimate. In so doing, the example cancels any implication of tokenistic inclusion.

However, some things are academically inescapable. Various ethnic minority groups within any nation do not have a choice but to become bi- or multi-cultural to achieve equity in the education and subsequent employment stakes. For example, during an e-tutorial teleconference with Indigenous Bachelor of Education students, one e-learner was overheard saying, "Why doesn't she [the e-lecturer] ever believe us?" In Western academic contexts, students have to justify the source of their ideas and arguments through referencing. As explained previously, this is not part of the practiced epistemology of indigenous peoples. If it had not already been built into the e-course materials in the section on plagiarism, the e-student's comment provided what educators call "a teaching moment." It allowed the differing epistemologies of academic culture and indigenous (or other cultures) to be examined and the rationale for justification of what would be unsubstantiated statements if left without referencing.

Another example highlights the inadequacy of the belief that students can easily switch between the majority and their own ethnic minority cultures. When debriefing with an indigenous student in a neutral setting, over coffee in a nearby shopping center, both the lecturer and student were concerned as it was his repeat practicum. The lesson had involved reading a story book to Grade 2 students. The lecturer realized that the credit-level student had quickly read each page of the story in his mind and, without a break in the pace, he then told the story of that page to the children. In effect, he was putting

into practice his culture's tradition of storytelling. It was also an example of culture switching. However, it was not until he asked, "Why do teachers have to *read* stories?" that the lecturer realized that it was not merely a matter of being able to switch language and behavior codes in the appropriate settings. The crucial lesson to both of us and, by extension, to those belonging to majority and minority cultures was that each has to recognize the value in the bi-cultural practice (Bowskill, McCarty, Luke, Kinshuk, & Hand, 2000). This is an underlying principle in the multiple cultures model.

Gender

Gender issues are important in epistemologies, pedagogies, and content of e-learning (e.g., Haslanger, 2000; Looi, 2002; also see examples previously mentioned). There are diverse sources available online: for instance, statistics of women's education, rates of pay by gender and occupation, and health by country and within a country by ethnicity (Haslanger, 2000); statistics for indigenous women's mortality rates, domestic violence, education, and imprisonment (Kauffman, 2003; Rappaport, 2004; Susskind, 2000); information concerning the neglected rights and conditions of female refugees and those in occupied countries (Susskind, 2004); and literature, such as, Arabic prison narrative written by women (Boulos, 2003). Domestic and multi-national "sweat shop" factories in China and third-world countries also impact female (and male) roles, rights, health, justice, and education (Susskind, 2000) within and across national and international economic, political, ethical, and social values.

In the multiple cultures' e-course and e-programs, these are issues that have a legitimate place in e-learning materials regardless of discipline. If e-instructors were concerned as to where to include some of this type of content, ethics would be a relevant area for any discipline. They could also be included in the same manner as suggested in the indigenous export enterprise example.

Another example of inclusion follows: If either physics, medicine, mathematics, warfare, or computer science were the discipline under study, an online search of female and male by nationality/ethnicity could add to the e-students' understanding of which women contributed to our global knowledge or were highly prized participants in a particular area of endeavor. Additionally, it would not be difficult to add commentary whether online database sources continue to maintain or have rectified the gender imbalance in these areas in online and print materials (Kramarae & Spender, 2000; Spender, 1996).

Organizing an Internet project between a mixed-gender class of teenage students in a Western school and single-gender high schools in certain Middle Eastern countries would solve any problems associated with boys and girls learning together. What is more important academically? Is it that the e-learners collaborate in mixed gender groups when this is not their norm or that the topic is interrogated by students who feel comfortable in a gender-segregated grouping? In the multiple cultures model, a relevant e-activity would be discussion of the historical, religious, educational, and economic rationales for single-sex schools, or, as is occurring in some high schools, single-sex math and science classes, in both countries. This strategy negates possibility of tokenistic characteristics and a "them versus us" mindset.

In Torres Strait Islander culture in Australia, gender and kinship are entwined. For example, nieces should not contradict their uncles, particularly in public forums. In the Bachelor of Education blended e-learning Remote Area Education Program (RATEP) at James Cook University in Australia, the students at one RATEP centre at the tip of Cape York decided that these cultural norms would not be maintained within the confines of the RATEP context. In this way, each individual became involved in lively teleconference and online critiques and debates (Henderson & Putt, 1999; York & Henderson, 2001). However, at another RATEP site, it did not take the e-instructor long to realize that the niece had asked to work with her uncle because she was cognitively lazy and allowed her uncle to do the thinking and planning; she had planned to do only the practical part of the activity.

In these myriad ways, the multiple cultures model does not merely encourage, but stipulates, the integration of various value systems if the intention is to maximize equity. Equity is not a simple matter of multiculturalism or the Asianization, Indianization, Middle Easternization, East Europeanization, Africanization, or any "…ization" of the e-learning resources of whatever groups are to be the consumers. Equity of e-learning means maximizing the learning outcomes for all the e-learners.

Eclectic Pedagogic Paradigm and E-Instructional Design

The second layer in Figure 1 contains an essential mix of pedagogic e-teaching and e-learning paradigms and practices. When theorizing the multiple cultures model back in the mid-nineties (Henderson, 1994, 1996), proposing that instructional design should candidly acknowledge the reality, and worth, of eclectic pedagogic practices was a risk. A line had been drawn in the sand between behaviorist e-learning and constructivist or social constructivist e-learning instructional design. Even a cursive look through journal articles and books published since the early 1990s weights best interactive multimedia and online pedagogic design and implementation at the constructivist/social constructivist end of the behaviorist-social constructivist pedagogic continuum. Generally ignored were the undergraduate and postgraduate realities of a standard 10-14 week e-course or intensive 10-day blended mode course. Rarely have online courses, or face-to-face teaching, been totally constructivist or social constructivist for their duration. In contrast, an eclectic blend of behaviorist, constructivist, and social constructivist pedagogies reflects reality and thus sits convincingly in an interactive multimedia, online, and/or blended curriculum, whether within an e-course or over an e-program (Ally, 2004; Edmundson, 2004; Henderson, 1996; Henderson & Putt, 1999; Henderson, York, Jose, & McGowan, 2000; York & Henderson, 2001, 2003).

This section will not elaborate the theoretical background and characteristics of these pedagogies, as this has been more than adequately covered in other chapters in this book. More importantly, the section will explore examples from the author's e-instructional design to demonstrate how the pedagogies can be utilized and how they can be programmed to be used in a behaviorist or constructivist way or how activities can be changed from only behaviorist to constructivist or social constructivist in an e-course

or blended course. In addition, attention is focused on incorporation of the epistemological layer's contexts (Figure 1) to maximize effective e-teaching and e-learning outcomes.

Behaviorist or instructivist pedagogy incorporates the theory that the degree of a learner's understanding can be tested by assessing the behavioral outcome after learning some set content, such as occurs in an online multiple choice quiz that presents a pre-set number of randomly chosen items from a data base. The e-student's answers are automatically marked with instant pre-programed feedback and the results submitted to the online grade book on the institution's Learning Management System. Another instantly graded item could be a comparison of the e-student's typed response to a short audio or video English-as-a-foreign-language dictation test. These tests are essentially private for e-learners whose epistemologies involve losing face (Kennedy, 2002; Tjitra, 2000) or feeling shame (Henderson, 1996) in public testing. The e-instructor can reduce the allocated time limit on repeat taking of such tests, which has motivational worth (Henderson, 1993; Malone, 1981) for e-learners.

After engaging in an interactive Web lecture on these three teaching and learning pedagogies, the e-learner would be required to complete an online multimedia click-and-drag activity by clicking on one of a list of characteristics and dragging it into the column associated with behaviorist, constructivist, or social constructivist pedagogy. If that characteristic does not belong, it is programmed to move back to its original place in the list. Such activities are seen to be of little cognitive worth as the student eventually gets it correct through trial and error. In fact, it would not even require regurgitation of learned content. Indeed, this would be irrefutable if the dragged item had one and only one correct place to which it belonged. However, if the interaction as in the example given has fuzzy boundaries in that some of the items could reside in more than one category, then a follow-up online text interaction would require the education or instructional design e-learners to explore the pedagogic value of such an activity. Their answer would probably include frustration when they thought an item should go into a particular category but it was programmed into another. For example, the fact that behaviorist problems can be authentic, in that the scenario can be found in real life, is sometimes ignored by students as authenticity is claimed as a particular facet of constructivist and social constructivist pedagogy. After clicking on the submit answer button, a further inbuilt text interaction would now require the student to engage in metacognitive explanation as to their thinking during the activity and to compare those thoughts and strategies with why the e-instructor programmed the activity in a particular way. This, too, would be submitted, and a final text activity would then ask the e-student if they wished to change their initial answer about the worth of the activity and to explain why or why not.

All these text questions and answers would then be submitted through the learning management system to the e-lecturer or, if it were a blended subject, the questions and answers would appear in a pop-up window with a date of submission automatically generated and a request that the student type in their name and student number, print the contents, and bring it to a face-to-face tutorial. The online students would be required to debate the topic in a discussion forum. A synopsis of Henderson's (1996) findings would have been distributed some time during the debate to inform further discussion. (Henderson's 1996 thesis established that indigenous Bachelor of Education students engaged in higher order thinking skills during the click-and-drag interaction as well as

during the following metacognitive activities.) In ways described, the online activity turned from a behaviorist to a constructivist activity to become a social constructivist task within a distributed cognitive environment.

Research (Henderson, Patching, & Putt, 1994) found intriguing epistemological and self-empowerment outcomes from metacognitive activities built into the e-course interactive materials designed for indigenous Australian Bachelor of Education e-students. Initially, the students found it difficult to interrogate their own thinking and the strategies they subsequently took. They claimed they did not engage in such thinking because asking "why" questions of their elders when learning were not condoned or answered (Henderson, 1996) and, therefore, asking why or how of yourself as to what you were thinking was also pointless. Students reported that because they individually completed inbuilt metacognitive activities over the semester, they became more confident to query their peers publicly. Interviews were also conducted some months after graduation to see if there was transference, an important consideration for any e-instructor. One student was adamant that it was specifically these experiences that empowered her to question openly the comments and ideas of non-indigenous teachers, even in school meetings. She was delightedly amazed as this was something that was not part of their post-colonialism epistemology. This example demonstrates the integration of shared epistemological systems by the e-learners and between them and their Western e-instructor.

To take these examples further, effective e-instructional design requires the under- and post-graduate e-learners to construct individually their own multiple choice quiz on some aspect of the e-course content. They could use a Java script template provided or, if the course requires such programming skills, program their own quiz (constructivist exercise) and later in the e-course with an e-partner via e-mail (social constructivist activity). The same strategy would be used when the e-students create a reflective metacognitive activity, already modeled in the e-course, by using the provided online template (constructivist exercise). The interaction presents one or more questions, the students answer each in the left column of a three-column text-interaction box. After they click the "finished" button, the answer programmed by the e-instructor (in this case, it would be the e-student acting as instructor) appears in the middle column. The other e-student is then required to type in their reflective comparison and evaluation of the answers into the third column. In both these examples, the e-students would be required to answer and evaluate each others' quizzes and metacognitive activity in the online discussion forum (social constructivist activity). Involvement in a wiki or blog (social constructivist) would better illuminate the development of their thinking and evaluative reflection (constructivist) during these exercises. Additionally, the best of the e-students online interaction activities would be included in the next year's cohort of student's e-course. This is a worthwhile example of social constructivist distributed cognition. The pedagogic package, learning through taking another's e-quiz and e-activity, deconstructing their own responses through reflection, and then creating their own items, should provide worthwhile self- and peer-enhanced cognitive outcomes. These eclectic pedagogical activities are not "pie-in-the-sky" suggestions, but have been integral in the author's undergraduate and postgraduate blended- and e-courses, and are the subject of ongoing research (Henderson & Coombs, submitted for publication).

Eclectic pedagogy is crucial in multiple cultures e-learning resources. All e-teachers need such a repertoire of educational pedagogic or andragogic strategies to assist e-learners

to achieve various personal, national, and international goals. This situation occurred in 2004 in a Master of Education subject offered to e-students in blended mode in Singapore. One of the students, recently appointed to an educational government department, utilized Singapore's focus on educating for an innovative, flexible, and economically-viable society. His solution to helping educators to see value beyond behaviorist pedagogy was to create a social constructivist WebQuest. The WebQuest forced staff who had grown up with, and were more comfortable learning and teaching with, behaviorist face-to-face strategies to thereby inservice themselves in a social constructivist manner as to how this policy would be implemented in their school and administrative contexts. This is a worthwhile e-andragocial example of productive pedagogies in which the assessment allows the postgraduate e-learner to situate their major task within their working environment. The assessed piece then adds additional value to the e-student from their employer's and, in the above case, colleagues' recognition as a knowledge worker or enterprising self of merit (Garrick & Usher, 2000; Henderson & Coombs, submitted for publication).

The following is an example of both the sharing of epistemologies and distributed cognition in a social constructivist e-learning environment with the 2005 cohorts of the Australian James Cook University's Master of Education subject mentioned previously. In the first semester, the Malay and Chinese Singaporean e-students created an *E-Learning Quest: Online Teaching and Learning* through individual activities and the normal social constructivist roles associated with Web quests. With respect to the former activities, each e-student had to present a story board of the site's layout, navigation, and common attributes (e.g., text font and sizes, color scheme, background, tables, and icons) with the best selected according to highest number of votes awarded by students and the e-instructor. The latter activities in this e-learning Quest were the normal social constructivist collaborative roles associated with WebQuests as well as a jointly decided assessment rubric. Unlike traditional WebQuests, both this and the second semester's Quest assessment had to include behaviorist, constructivist, and social constructivist online activities using the templates provided (see above) or programing other interactions. In addition, all e-students were required to include content that addressed e-learner epistemologies (with respect to sub-cultural groupings based on gender, ethnicity, and workplace).

The first semester's Quest became content for the 2005 second semester's e-students in Australia and Canada and the appointed e-instructor residing in the USA. These e-students' task was to critique the instructional design and the content of the *E-Learning Quest: Online Teaching and Learning*. Discussion of the critique would query if the students perceived the instructional design was influenced by the Singaporeans' culture, as suggested by research (Bowskill et al., 2000). The second cohort was also expected to update the former cohort's Quest with appropriate Web article links. In both cases, these links had to be annotated. There is absolutely no pedagogic value in having WebQuest links (or other e-course links) without an annotation as to, for example, its relevance to the topic in terms of, for instance, the major concepts, breadth, and depth of content, school or higher education level, and discipline focus (Henderson & Coombs, in press). The second semester 2005 cohort also constructed e-learning or e-teaching Quests in various educational contexts. For example, three technical and vocational instructors collaborated to create an *E-Instructional Design Quest* to support fellow staff

in the latter's adventure into creating Web sites for their particular vocational area while an individual student (her partner withdrew from the e-course) elected to create an *E-Teaching Quest: Constructing Metacognitive Activities* for fellow university instructors. All the 2005 Quest sites will become part of learning content for the next year's cohort, who will also critique the sites in terms of its instructional design and educative value as well construct other Quests. From these examples, it is clear that the e-instructors, who are also the e-instructional designers, take seriously the adoption of the constructivist and social constructivist theory of distributed cognition during the creation of each cohort's Quest and over time between cohorts through the intrinsic and extrinsic role of assessment for e-postgraduate students.

It will have been noticed that in the various examples presented in this chapter, both the undergraduate and postgraduate e-learners were presented with assessable tasks that normally reside with the e-instructor. The Web content in the e-courses contained these types of interactions so that they acted as scaffolded models within a constructivist cognitive e-apprenticeship paradigm for the students' own construction of online interactions. Past e-students commented that this gave them a better sense of ownership and empowerment as they were inducted into not only learning online but also into teaching online (Henderson & Coombs, submitted for publication).

Additionally, advance organizer downloadable files offered linear or horizontal flow charts, Venn diagram, or concept map overviews of the menu item list and their sub-topics (which appeared on the top of each page in each of the menu item topics) in each e-course module. The instructional design justification was threefold. First, the e-students could use a hard copy for note-taking to support their mental model of where each section logically fitted into the whole. Thus, second, the advance organizers provided differing designs to demonstrate that it is important for educators to cater for learners whose way of thinking is different from their own. For example, indigenous Australians (Osborne, 1982, 1986) and South American, Middle Eastern, and Southern European are generally thought to prefer holistic big-picture approaches (Edmonds, 2004). Third, such deliberate e-instructional design allows the incorporation of various components in the layers of the multiple cultures model as depicted in Figure 1. In these ways, through the multiple cultures model, the e-students create living sites of pedagogic engagement that change during and after the completion of their particular e-course.

These rather lengthy examples provide yet a further e-global instructional design issue that the multiple cultural model helps solve. The costs of editing e-courses are usually not funded adequately, if funded at all. By having e-students create content and interactions for the next cohort of students in the ways described, the hidden costs of the e-instructor's time in editing and updating the Web e-course content and its links to online literature can be reduced. This would be particularly important in e-courses that do not use textbooks but rely on utilizing current journal articles and chapters in books as well as online resources that specifically target the areas that the e-instructor wishes to cover.

So far the chapter has not explored e-instructional design with respect to collaboration in discussion forums or blogs (Goodfellow & Lea, 2001; Housden, Forsyth, and Bateman, 2003; Salmon, 2004). It is not because the area is not as significant as others covered; it is because the area has been addressed in other chapters. Nevertheless, one area is

significant to the particular themes in this chapter, and therefore this section briefly examines online discussion spaces. These are "worlds constructed with words" (Bowskill, et al., 2000, p. 5) and attached pictures or graphics. Being able to rework comments before posting them supports those who are working in a language other than their first language. However in e-global education, the concept of social presence, defined as "the degree to which an individual is perceived or experienced as a 'real' person," is understood to be a more significant factor in engagement and learning outcomes (Thompson, 2000, cited in Wentling, Waight, Gallaher, La Fleur, Wang, & Kaufer, 2000, p. 23). The e-instructor's ability to create a high level of social presence contributes significantly to instructional effectiveness and learner satisfaction (Thompson, 2000, cited in Wentling et al., 2000). Research findings by Swan and Shih (2005) indicated that the e-learner's perception of the presence of their fellow students is less important than that of the e-instructor and the design of the e-course in determining the e-learner's success and satisfaction. These views accord with the contention voiced in previous research: Effective e-instructors must necessarily be warm demanders (Henderson, 1993, 1994, 1996; Henderson, Patching, & Putt, 1994; Henderson & Putt, 1999; Henderson, York, Jose, & McGowan, 2000). As such, they allow e-learners into aspects of their personal and professional lives (Scorza, 2005) while simultaneously, (a) not negating that there remains a power differential between e-instructor/assessor and e-student and consequently, (b) demanding the highest standards from each e-student. E-instructors also acknowledge what and how the e-learners have taught them. Examples include the e-learners offering aspects of their ways of thinking and doing, further insights into content, and/or different arguments emanating from the students' different epistemologies. The human and cognitive are entwined, and through these methods the e-students and e-instructor confirm the personal and academic.

Conclusion

It would not be surprising if an initial reaction is an automatic dismissal of the multiple cultures model by e-instructors and e-instructional designers, claiming it to be an impossibility to implement. Examples of actual cases and possibilities were provided in this chapter to counter this belief. Additionally, other worthwhile exemplars have been offered and discussed in this book. Luck, Jones, McConachie, and Danaher (2004) supported Gregor, Jones, Lynch, and Plummer's (1999) warning that various stakeholders can disparagingly "magnify traditional problems of politics, management, expectations, hidden agendas, disruption to the balance of power, technical concerns, and difference in cultural values" (p. 6). Such a knee-jerk reaction would ensure the continuation of the status quo of unproblematized soft multicultural Westernized, or Asianized, or any other form of internationalized, model of e-learning.

Not technology-*driven* but technology-*enabling* e-learning sometimes means that e-instructional designers and e-instructors need to "think outside the square." Indigenous Bachelor of Education students still felt the limitations of studying in their remote small communities even though they were in e-mail contact with other students and their

instructors, conducted assessable online discussion forums, and could search the Web for various educational and recreational purposes (watching "Days of our Lives" was one of the latter!). It did not take the two instructors long to brainstorm a solution: an *International E-Conference: Perspectives on Indigenous E-Learning and E-Teaching*, in which the indigenous final year students would contribute postings as well as promote participant discussion of an allocated e-paper. The result was James Cook University's first online Web-based conference. There were 680 subscribers (of which 156 were participants, with the majority of the remainder being lurkers) from Sweden through to South Africa; Great Britain through to Japan; Russia through to the Middle East and India; the Americas, South East Asia, Australia and New Zealand. This may seem an impractical e-global strategy for just one part of the assessment. Crucially, students evaluated their outcomes in terms of being offered and courageously taking empowerment and ownership of their learning in a supportive but public asynchronous world environment. The undergraduate e-students also became e-teachers of neophytes in the area of online indigenous learning (Henderson, York, Jose, & McGowan, 2000). The most telling example was how the indigenous students (Aborigines, Torres Strait Islanders, Maoris, and those from Botswana and Madagascar) wove the social with academic critique and the way this was juxtaposed with some academic participants' initial inability to value, let alone see, what had occurred. It was the multiple cultures model in action.

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Endnotes

1 "E-learners" is used here as a generic term for those who are learning in a formal online educational context, be it in schools, higher education, the work place, government, or the armed services.

2 "E-teachers" incorporates e-instructors, e-lecturers, and e-trainers. They will be used interchangeably and individually when more appropriate.

3 Torres Strait Islanders are Australia's second indigenous group; their traditional country are the islands between Cape York, North Eastern Australia, and Papua New Guinea.

4 This division of two groups, indigenous and ethnic minorities, is one of expediency for the sake of instant clarity. All cultural groups, including people who belong to a country's majority culture, for example Anglo-Australians, belong to an ethnic group. By definition, everyone has an ethnicity.