CULTURAL INFLUENCES ON ONLINE LEARNING

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As far as anthropologists and other behavioral scientists are concerned, culture is the full range of learned human behavior patterns (O’Neil, 2006). Culture is a human tool for survival; for example, it is reflected in the way we organize our social, economic, and political systems; work and play; share knowledge and skills with others; and so on. But it is also a fragile phenomenon, constantly changing and easily lost, because it exists only in our minds. Nieto (2010) described culture as “dynamic, multifaceted, embedded in context, influenced by social, economic, and political factors, created and socially constructed, learned, and dialectical” (p. 137).

In considering cultural influences in teaching, learning, and online learning, we must recognize that there are in fact three layers or levels of culture that influence our learned behavior patterns and perceptions.

First, there are the cultural traditions that distinguish a specific society—the shared and inherited language, traditions, and beliefs that set people apart from others. Second, within complex, diverse societies there are identifiable subcultures that display subcultural traits that set them apart from the rest of society, for example, in the way they dress, communicate, relate to each other, and relate to other subcultures and society as a whole. Third, there are cultural universals, learned behavior patterns that are shared by all of humanity, for example, the construction of language; the classification of people by age, gender, or kinship (young, old, male, female, father, mother); the organization of families and social groups; and the establishment of some form of leadership roles for making community decisions.

As this chapter shows, one of the challenges in sharing or adopting teaching and learning patterns across cultures is knowing where cultural universals apply and where cultural differences and subcultures will influence the processes and outcomes. For example, it might be commonly assumed that most young people are computer literate. But even though the Internet and the web are universal, it would be a serious error to assume that there are cultural universals in e-readiness and e-learning readiness.

Consider new groups of students from different backgrounds and of different ages enrolling in an educational institution or program. Some may be digital natives (persons who understand the value of digital technology and seek out every opportunity to use it),
whereas some may be digital immigrants (late, recent, and perhaps even reluctant adopters of the new technology) (Prensky, 2001). There may also be digital natives and immigrants in the teaching force. The ideological, as well as the knowledge and skills, divide that may exist between these subcultures—the digital natives and digital immigrants and the different generations of learners and teachers—may well lead to uncertainty, misunderstandings, tensions, and even conflict. Consider too the culture of chat and the culture of the tutorial and you will start to appreciate the implications for online learning.

This chapter discusses how these often contradictory attributes of culture affect approaches to teaching and learning in different cultural contexts in order to help educators develop better understandings of cultural influences on learning and online learning. It first explores how culture with both static and dynamic features influences learning. It then looks at how the multifaceted nature of culture promotes multicultural and diverse experiences of learners in learning and online learning, with a special focus on gender differences. It also discusses the bilateral interaction between culture and learning context, followed by socially constructed and changed concepts of culture in learning and online learning. It concludes with recommendations for online educators.

Culture and Learning

Examining culture from a static perspective, we note that deeply held values transmitted from generation to generation remain constant and do not change readily as a result of multicultural experiences. Our basic psychological processes such as perception, cognition, memory, and problem solving are influenced by culture (Matsumoto, 1996). But at the same time, people from different cultural backgrounds receive and process information in quite different ways. Using the well-known Müller-Lyer figure (see figure 2.1), Henrich, Heine, and Norenzayan (2010) and Matsumoto (1996) found that perceptions of this optical illusion varied by culture. Most Westerners, well used to observing human-made, rectangular-shaped objects, perceived Line A to be shorter than Line B, whereas Indians and New Guineans, who are more familiar with natural, rounded, and irregular surroundings, perceived them to be the same length.

In another example, Kearins (1986) examined the visual spatial location and memorization skills of Australian outback aboriginal children and White metropolitan children using a version of Kim’s game, which involved rearranging objects on a grid and then requiring the two groups of children to recall their original location. On all occasions, the aboriginal children performed significantly better than the White children. They sat

Figure 2.1 The Müller-Lyer illusion. Created in 1889, Creative Commons Attribution-Share Alike 2.5 Generic License.
very still, concentrated on the task, took their time in rearranging the objects, and clearly employed visual means to solve the problems. By contrast, the White children fidgeted, rearranged the objects hastily, and muttered to themselves, using a verbal strategy that was inappropriate to this particular task. It was concluded that the aboriginal children were influenced by different inherited cultural practices and that their superior visual spatial memory skills were part of a wider cognitive skill set necessary in a natural world where survival depends on the ability to hunt, gather foodstuffs, and find water. As studies by Gauvain (2001) reveal, cultural factors influence not only what children learn but also how they apply different strategies of attention, memory, planning, and problem solving.

Cultural influences are also evident in the differences between long-held Western and Eastern ways of thinking and knowing. Spronk (2004) observed that Western cultures tend to adopt an analytical approach, dividing reality into its parts, whereas Eastern cultures favor more synthetic approaches, focusing on the whole over the parts. Nisbett (2003) characterized Western thought as seeking consistency and stressing the object and Asian thought as accepting contradiction and being more concerned with context. Others such as Hofstede (1991) and Hall (1976) defined Western cultures as individualistic, logical, precise, action oriented, and low context and Asian cultures as collective and high context, for example, being more concerned with the nonverbal behaviors and status of the speakers. These differences help to explain why some Asian students tend to plagiarize. Quoting from well-known and highly respected sources is a sign of deep respect for the authority. Altering the authority's words would be a sign of disrespect. And in Asian societies that value societal independence over individual rights and ownership, knowledge is regarded as belonging to the society as a whole, so one's duty is to share it with others (Introna, Hayes, Blair, & Wood, 2003; McDonnell, 2003).

Joy and Kolb (2009) examined the impact of culture on learning styles. They used 10 culture clusters derived from a decade-long empirical study involving 170 scholars from 62 societies to categorize and test cultural dimensions at societal and organizational levels: Anglo, Latin Europe, Nordic Europe, Germanic Europe, Eastern Europe, Latin America, sub-Saharan Africa, Middle East, Southern Asia, and Confucian Asia. To assess the differences in learning styles of 1,292 individuals from these cultures, the researchers used the Kolb Learning Style Inventory, a 12-item instrument that measures the degree to which individuals show different learning styles (Abstract Conceptualization vs. Concrete Experience, and Active Experimentation vs. Reflective Observation). They found that Confucian Asia, including China, Japan, and South Korea, scored the highest in Abstract Conceptualization, whereas the Latin and Anglo cultures such as France, Spain, Australia, and the United States rated highest in terms of Concrete Experience. No cultural differences were identified in the preference of Active Experimentation over Reflective Observation. These results suggest that Confucian Asian culture has a strong preference for abstraction, whereas the Latin and Anglo cultures prefer concreteness over abstraction in learning. Joy and Kolb also calculated how much culture and other factors (age, gender, level of education, and educational specialization) explained learning style and found that educational specialization or study field (which of course represent subcultures) ranked first, accounting for the most variance in Abstract Conceptualization versus Concrete Experience, and culture second. Further data analyses revealed that
people from countries with high scores in uncertainty avoidance, future orientation, performance orientation, and collectivism such as Singapore and Germany tended to have abstract learning styles.

Although all of these studies may have their methodological limitations, they all concur that culture is an important, if not the primary, factor influencing how people develop strategies to perceive or receive information from the world around them, process information and learn specific strategies for remembering information, interpret the world around them, and learn the rules and strategies for planning and problem solving.

But, as observed at the start of this chapter, culture is dynamic and ever changing. In today’s global, mobile, and online society, people interact with people from other cultures and, in so doing, absorb something of these different cultures. The former territories of the British Empire, such as India, Singapore, Hong Kong, and the West Indies, have long shown many adopted Western cultural traits, and today, Asian countries such as Japan, South Korea, and China are rapidly absorbing many Western ideas and ways of doing things often due to commercial imperatives. As Nisbett (2003) observed, increasing numbers of Asian organizations, institutions, and individuals are bicultural, able to switch their worldviews to Western or Asian according to context and need. Globalization and the online environment are also accelerating cultural change in education, which holds both promise and challenges.

Culture and Online Learning

It is important to stress that although the following observations have diagnostic value, caution should always be exercised in stereotyping students based on country of origin or a static notion of culture.

Cultural Experiences

In the individualistic Western cultures where an “I-You” stance reflects mutual respect and equal status, and online learning typically entails text, independent learning, and the use of metacognitive skills, in Asia, as Özkul and Aoki (2006) found in Japan, teachers and students prefer TV and videoconference lectures to impersonal text on the Internet and asynchronous online space. This is explained by the fact that in Asia, the “We-They” stance prevails, age and social status are determiners of appropriate behavior for learners, and the students deem the knowledge and opinion of the instructor to be more worthy than theirs. Also, the learners are accustomed to the instructor providing clear instructions and closely monitoring their progress. This is why Wang (2006) observed that Chinese online teachers struggle to achieve a balance between teacher-centeredness and embracing the more learner-centered and self-directed learning approaches that online learning environments offer.

Interviewing an international group of instructors, Downey, Wentling, Wentling, and Wadsworth (2005) identified a positive relationship between national culture and the usability of an e-learning system. They suggested that e-learning providers targeting the global market need to consider the level of leadership expected by the learners, and the level of group interaction and support offered to learners, in order to improve the usability of their systems. For example, learners from power-centric cultures may expect greater
guidance from their teachers and prefer a more teacher-centered approach to online learning. On the contrary, learners from more power-distributed cultures may wish to adopt a more student-centered approach. In collectivistic societies, learners may desire strategies that promote group work, collaboration, and social activities, whereas learners from more individualistic societies may prefer an e-learning system where learners can exercise greater control over their own learning pace and method and where a principle of competition is promoted during instruction and assessment.

Multicultural Experiences

In a multicultural and collaborative online learning environment, both students and teachers are exposed to cultural differences in teaching and learning and, in some cases, the need to communicate in an unfamiliar language. During this process, as shown in chapter 13, both sets of participants begin to develop new values and habits and question their previous assumptions in regard to teaching and learning and their fellow learners. As a result, a reasonably homogeneous online teaching and learning culture emerges, and as Anderson (2004) observed, regardless of racial, ethnic, or linguistic backgrounds, the participants experience a “profound and multifaceted increase in communication and interaction capability” (p. 42). There are clearly many advantages to using the Internet to provide students with opportunities to extend their experiential learning spaces and learn and interact with those of other cultures (Jung & Latchem, 2011), but careful planning is necessary to ensure that the content, use of technology, role of the instructors and learners, and management of the learning process enable participants from different cultures to reflect on knowledge, opinions, and assumptions about educational practices and shed light on some important issues at the interface of technology, culture, and pedagogy.

The Issue of Subcultures

As already noted, within any nation, ethnic group, or society, different subcultures exist. They may be generational, social, or political. So although it holds true that in many educational contexts, students in high-context Asian cultures prefer face-to-face contact with their teachers and a group-oriented environment, a different learning culture may be observed in online education. Examining predictors of learner satisfaction in online learning in Japan where teacher-centered face-to-face learning was highly valued, Bray, Aoki, and Dlugosh (2008) discovered that students experienced in distance education revealed a preference for online learning because it accorded with a newly adopted learning style of independent study and self-directed learning. Chen and Wang (2010) noted similarly that today’s Chinese online learners ask for more interactions and flexible learning activities guided by instructors, whereas their institutions place more emphasis on the provision of video lectures and multimedia resources.

Culture and Gender Differences

Again caution is needed in regard to gender stereotyping, but in a meta-analysis of research into gender differences in learning styles, Severiens and Ten Dam (1994) concluded that males tend to be more interested in learning for the sake of gaining qualifications offered,
whereas females are more interested in learning for learning's sake. They also found that males were more likely to employ deep learning approaches than their female counterparts. Hayes and Smith (1994) and Lie, Angelique, and Cheong (2004) found that because females focus more on interpersonal relationships, they tend to prefer collaborative learning, whereas males prefer independent learning.

In regard to online learning, a number of studies indicate that male and female students differ in their experiences, perceptions, motivation, preferred learning and communication styles, and performance (Blum, 1999; Chyung, 2007; Gunn, McSporran, Macleod, & French, 2003; Rovai & Baker, 2005; Sullivan, 2001; Tekinar, 2009). For example, Sullivan (2001) discovered that overall, female students in one U.S. community college were more favorably disposed toward online learning than were male students. Chyung (2007) found female students in a U.S. university’s online course scored higher than males in self-efficacy and exam results. Rovai and Baker (2005) found that female students felt more connected and learned more than males in 12 graduate-level online courses. After reviewing international literature and practices on gender issues in computer-supported learning, Gunn et al. (2003) concluded that female students both posted and read more messages on course bulletin boards and generally performed better than their male counterparts. And Bellman, Tindimubona, and Arias (1993) found that in both African and Latin American contexts, female students who were reticent in offering their opinions in face-to-face situations tended to make strong assertive comments in online environments when their anonymity was ensured.

However, other studies report inconsistent or contrary results in gender differences. For example, Yükseltürk and Bulut (2009) found no gender differences in motivational beliefs, self-regulated learning, and achievement in an online class in Turkey; Barrett and Lally (1999) found that male students in an online graduate course posted more and longer messages and made more socioemotional contributions to the online community than did females; and Tekinar (2009) revealed male students’ higher self-efficacy in web-based learning in a study of Turkish undergraduate students.

These inconclusive results suggest that context is an important variable in judging gender differences in face-to-face and online learning.

**Culture and Learning Context**

A number of studies confirm the bilateral interaction of culture and context. Jung and Suzuki (2014) analyzed the behaviors and motivations of students who made no contributions to editing other students’ writing in a wiki-based Japanese language course. They deduced the main reasons for their inactivity were a lack of confidence and avoiding “loss of face.” These could of course be attributed to the Confucian values instilled in these learners since early childhood: “Accept things as they are, don’t try to stand out in the group, don’t speak up until you’re spoken to, and respect those who lead, are older, or have superior knowledge.” Silence in the typical Japanese classroom is generally attributed to these factors. But in fact all of these students were non-Japanese and mostly from Western countries. So why was their behavior similar to that of the Japanese students? It was concluded that inactivity or silence is more closely related to the contextual expectations of the Japanese classroom than the students’ personal or cultural backgrounds. In
some Middle Eastern countries, women's access to higher education is either openly or by tacit discrimination limited. So in some cases, distance and online education becomes the only opportunity. This is why 68% of the students at Payame Noor University, the state distance education university in Iran, are females (Povey & Rostami-Povey, 2012). On the other hand, in Saudi Arabia, women are admitted to the conventional universities but cannot be seen unveiled by men in public places, so they study on separate parts of the campuses. So in addition to online course material distribution, discussions, quizzes, and assessment for female students, videoconferencing is often used for simultaneous course delivery to both male and female students, with the latter being able to see, hear, and interact with the male teachers and students while remaining hidden from their gaze. These two examples show how culture and context can shape the nature and application of online learning (Latchem & Jung, 2012).

Socially Constructed Culture of Learning

As we have shown, culture can be socially constructed and changed, but this does not occur easily and needs to be carefully planned and supported. The following example from Asia shows that policy support, strategic planning, shared responsibilities, encouragement, and continuous support are needed to construct new cultures of teaching and learning. Like many of its neighbors, South Korea is a high-context culture wherein communication is less verbally specific, meaning and context are equally important, harmony is preferred to confrontation, and paralanguage plays an important role. This explains why many Korean students prefer face-to-face learning and many online courses make extensive use of TV broadcasts, streamed video lectures, and blended learning. However, as a result of a combination of government and institutional policies, encouragement and support, and the development of sophisticated technology infrastructure in all higher education institutions, a new teaching and learning culture has emerged in the university and professional development sectors. As noted in Latchem, Jung, Aoki, and Özkul (2008), many Korean universities’ web pages give prominence to innovative learning approaches, including online learning, and all universities have centers for teaching and learning whose main roles include technology and pedagogy support for innovative teaching and learning. Over 80% of the 4-year universities offer online or blended learning courses and programs, every university has created an average of 29 wholly online courses (Kim, Leem, Chung, & Choi, 2010), and as of 2011, there are 20 virtual universities offering 245 majors fully online (Ministry of Education, Science and Technology [MEST] & Korea Education and Research Information Service [KERIS], 2011). These developments appear to have in turn brought changes to the teaching and learning culture in university classrooms, with faculty members combining Twitter and other social networking tools in both face-to-face and online classes, using e-portfolios to provide continuous learning support and integrating open educational resources into their online or blended courses, and creating multicultural learning environments by inviting participation by external experts and students from other countries via networking technologies (KERIS, 2010). All of which can occur only in an open culture and a culture open to change.

Cultural change can also be unconsciously learned. Indeed it may be more common to learn and adapt culture without any conscious effort. As Nieto (2010) pointed out,
Culture is learned subconsciously through interactions with others in the community and in informal environments. She went on to say that most people do not think about their culture unless their culture is in conflict with, or under the influence of, another culture. People who belong to a majority culture do not seem to consciously ponder culture. Maybe this is why most of the culture-focused articles are written by authors who have been a part of two or more cultures or do not belong to a majority culture, as depicted in chapter 15 of this book.

By studying in online learning environments, students learn not only the content but also the culture that is unique to online learning (see chapters 4, 5, and 9). Think about students who have studied only in a face-to-face learning environment and have never been exposed to online learning. They belong to the majority culture of learning and thus may have difficulties in understanding and applying the new ways of learning that are required in the twenty-first century. So in achieving change in online learning, online learners require more than training and instruction in the technology and methods. They require initiation into the new and different cultural norms and values and induction into the thought systems and culture of interactive, interdependent, and self-directed learning by means of direct and immersive involvement in online learning. Although sensitivity to traditional and different cultures is very important, to be prepared for study, work, and life in the twenty-first century and be competent lifelong learners, all students need to become bicultural, internalizing these two cultures of learning: the conventional and the virtual.

**Conclusion**

Culture is often referred to as the concept with two faces: “the known meanings and directions, which its members are trained to; and the new observations and meanings, which are offered and tested” (Williams, 1958, p. 6). On the one hand, culture can lead us to follow common approaches and directions that we have acquired, whereas on the other hand, it can offer new and rich experiences and opportunities for constant change. These complexities of culture shape our perceptions of learning and online learning and how we teach and learn. The major challenges for online educators are to make sure that they are well aware of the multiple and complex nature of cultural and subcultural influences on learners’ learning behaviors and on their own teaching and utilize these cultural understandings to tactically devise learner support strategies, ensuring that learners from different cultural contexts achieve their particular learning objectives and the more universal educational objectives. The art of achieving this lies in avoiding indoctrination and manipulation and induction into knowledge of culture as a thinking system (see also chapter 8).

**References**


Povey, T., & Rostami-Povey, E. (Eds.). (2012). *Women, power and politics in 21st century Iran.* London, UK: Ashgate.


