Bridging the Cultural Gap of Online Learning: Implications and Strategies

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Abstract

Just as internet access has shifted from a 20th century novelty to a modern-day basic utility, so has the popularity of learning a specialization online become the norm and not the exception. Despite the growing demand for providing online courses/programs on a global scale, attrition rates remain unfavorably high compared to traditional face-to-face learning. Although research related to online teaching methodology has made much progress, there remains a plethora of studies related to cultural barriers in the virtual world of learning. In this literature review of Hofstede's Cultural Dimensions Model, the implications of the framework's four indexes—power distance, uncertainty avoidance, individualism-collectivism, and masculinity-femininity—are considered alongside with practical strategies for overcoming teaching methodological challenges.

The Problem of Learning Online

In an increasingly connected world, relatively affordable and accessible technologies are making it possible for students of diverse cultures to come together and learn particular specializations that are available in online learning environments. The ease with which information and communication technologies (ICTs) and the internet have allowed virtual classrooms to spring up, is met with unprecedented massive enrollments across the globe. The mounting popularity of studying online is evident in North America. For example, research indicates that 91% of two-year colleges in the United States offer online courses. In Canada, a nation of roughly 35 million, an estimated 100,000 registrants are full-time online students, and an estimated one million have registered in a course that was entirely online at some point in their studies (Shimoni, Barrington, Wilde, & Henwood, 2013).

Despite the growing popularity of online enrollment, completion rates continue to be a problem globally. In a study of dropout statistics from Massive Open Online Courses (MOOCs) in the United Kingdom, Onah, Sinclair, and Boyatt (2014) found that only 11% (roughly 35,000 out of 309,000) of registrants completed a 7-week course offered at the University of Edinburgh in 2013. The numbers are even worse at Duke University; of the 12,175 registrants of a MOOC on Bioelectricity offered in 2012, only 2.6% (313 participants) completed the course (Onah, Sinclair, & Boyatt, 2014). Similarly, across the United States, offerings for higher-stake degree programs encounter a similar fate. The Vail Ski and Snowboard Academy in Colorado reported a 20% dropout rate for newly registered students in the first two years of the program and at Florida's K-12 online schools and universities, the attrition rate ranges from 25-50% (McGeehan, 2012). At an Australian MOOC offering language courses online, roughly 80% of the online students failed to complete minimum requirements (Tsurutani & Imura, 2015).

Students' reasons for dropping out include not having a real intention to complete the course, technical problems, unrealistic expectations, lack of support, and lack of time to complete assignments due to an overload of information (Onah, Sinclair, & Boyatt, 2014). Other studies devoted to research that can predict the reasons for such high rates of attrition include the following: instructors may underestimate the learning burden of materials not designed for learners whose main language is not that of the course; thereby resulting in the learners needing more time to complete assignments (Azer & El-Sherbini, 2011). Physical disabilities, mental health considerations, and lack of access to basic technological affordances (e.g. webcam, high-speed internet) serve as barriers that result in a demotivating experience (Shimoni, Barrington, Wilde, & Henwood, 2013). Although numerous studies address the above problems, one factor often unaccounted for is how learning culture (i.e. style of learning) may prevent students from challenging or questioning an instructor even when concept-checking assignments or materials may be warranted (Liu, Liu, Lee, & Magjuka, 2010). For example, in a traditional face-to-face learning context, students may find it easier to approach the teacher to clarify outstanding questions about assignment instructions. Some may choose to ask clarifying questions openly in class or privately with the teacher at the end of class. In an online learning environment, however, students may feel inhibited to ask the same question either on a message board or in a private email due to the medium of inquiry. Teachers need to be aware of this possible hindrance with online-only instruction and be proactive about fostering open communication—be it openly or privately.

Hofstede's Cultural Dimension Model

In an attempt to explain and predict the reasons for the high attrition rate of online learning, especially with courses that transcend national borders, some researchers have focused on the cultural factors that could give rise to issues of conflict. Since culture influences our identity, ways of thinking, behaving, and how we respond to any given environment, it seems logical to consider the culture of learning as it pertains to *all* stakeholders—instructor and student alike (Azer & El-Sherbini, 2011). If "when we teach, we are teaching culture" then *how* we teach is just as important as *what* we teach (Parrish & Linder-VanBerschot, 2010, p. 5). Hofstede's Cultural Dimension Model, initially developed in the 1980s, was designed to address values and beliefs systems that form the backdrop of the learning transaction in any culture of learning (Hofstede, 2011). In the first iteration of the model, Hofstede (2011) initially identified four dimensions of cultural variability: Power distance (PD), uncertainty avoidance (UA), individualism-collectivism (IC), and masculinity-femininity (Azer & El-Sherbini, 2011). Hofstede, Hofstede, & Minkov, (2010) have updated the model to include long-term orientation versus short-term normative orientation and indulgence versus restraint. In the following paragraphs, a description of the Power distance (PD), uncertainty avoidance (UA), individualism-collectivism (IC) dimensions, and masculinity-femininity indexes and the effect those factors have on online learning will be considered along with strategies to overcome learning friction connected to those concepts.

Power Distance

Power Distance (PD) refers to the unequal distribution of power and wealth in a society and the level of acceptance regarding those factors. High PD societies are those in which individuals with high social status and power exert their influence on others (Liu et al., 2010). For example, a low power distance manifestation would result in teachers being treated as equals by students. Students would feel free to challenge the teacher in argumentation and thereby take more responsibility for their learning. In a high power distance relationship, however, teachers are expected to be experts in their subject fields. As such, they are perceived as authorities that should go unchallenged and the teachers take sole responsibility for what is learned in class (Vassallo, 2014). According to the Hofstede Cultural Dimension Model, failure to account for PD in a multicultural learning context (or in a homogenous high PD context) may result in diminished learning outcomes (Liu, et al., 2010).

For example, Wang (2007) conducted a mixed methods study of four higher education (mostly graduate level) online learning universities in three different countries—China, South Korea, and the United States. Data from a survey of 74 respondents was used to determine if a power distance index score influenced learner perception and participation in an online course. Due to the poor response rate from minority groups in the United States (i.e. Latin-, African-American, etc.) only "Anglo-American" (p. 301) respondents were sufficient for statistical analysis. Overall, Asian students, from China and South Korea, strongly disagreed to perceiving themselves as equal with their instructors compared to their Anglo-American counterparts. Wang (2007) suggests that this may be due to Asian students' cultural perception of teachers as having a higher social status.

The implication for the online learning environment is that Asian students may be reluctant to engage with instructors in a whole class discussion forum; especially if they perceive their comments as challenging the teacher's authority. As Wang observed, "[t]he Chinese and Korean groups, in particular, preferred delayed-time (asynchronous) discussion over same-time (synchronous) discussion…[because of] a salient Asian cultural trait in interpersonal communication: think more, talk less, and think it through before speaking" (p. 303). Moreover, of the three groups, the willingness to approach an instructor online for assistance was significantly different between the American group and both Asian groups. The Americans reported a greater comfort in asking for help from the instructor, whereas the Chinese group was most likely of all groups to seek help from their peers instead.

Although the above study is limited in scope, (only 74 respondents—a 25% response rate) and the validity and reliability of the survey were never established, the purpose of the research provides some critical insights regarding students' self-perception of the influence of culture on learning in an online environment. Course designers and instructors need to be sensitive to issues involving power distance in synchronous (real-time) and asynchronous (intermittent communication) online course communication; several scaffolding stages may be required for students who may be from high PD cultures. While culture may influence the way students from a particular society are inclined to learn, teachers need to be aware of their cultural bias when designing online learning objectives and activities. As Liu et al. (2010) suggest, teachers may need to be more proactive in establishing a nurturing online presence to facilitate students' openness to communicate.

Uncertainty Avoidance

Uncertainty avoidance (UA) describes the extent to which students may feel threatened by ambiguous and/or unstructured learning situations (Liu et al., 2010). For example, high UA is marked by "a preference for structure in activities, a need to get the answers right, an expectation for the teacher to have the right answers, and a dependence on a single authority for information" (Parrish & Linder-VanBerschot, 2010, p. 8). Overall, UA will determine how willing students are in choosing new paths of knowledge construction and creativity over reliance on a learning style that is less adventurous and dependent on previous experience.

In an exploratory study of cultural differences in an international online MBA course at a university in the United States, Liu et al., (2010) reported that the Asian students' preference for teacher-centered, linear transmission of information made them feel vulnerable and confused in an open-style learning context. Moreover, the Chinese students expressed feeling uncomfortable with the lack of guided instruction in a case-based learning activity in the program. The results of the qualitative findings suggest that East Asian cultures have high uncertainty avoidance Liu et al., (2010). In addition to open-ended projects, Parrish and Linder-VanBerschot (2010) have identified other approaches to learning that could trigger high uncertainty avoidance such as open-class discussions, a focus on the process of learning over getting the *right* answers, a teacher admitting not knowing answers to questions as opposed to being an expert with all the right answers, and a stress on ability to think over guessing the right answers on a test.

A cultural sensitivity to different learning styles should make instructors aware of adding balance and variety in assessing learning objectives. This awareness can lead to an appreciation of incorporating a multi-cultural approach to lesson design. For example, assessment of learning objectives could blend constructivist activities (such as group-oriented task-based projects) with instructivist practices (e.g. multiple-choice test on important concepts relevant to the learning objectives) (Parrish & Linder-VanBerschot, 2010). For example, a test could be a combination of open-ended and multiple-choice items. Moreover, online lesson designs need not always be open to the entire class right from the start. A scaffolded approach might start with smaller group access to collaborative projects, such as forming an audience of a few peer reviewers and the instructor. As learners learn to appreciate the benefits of risk-taking and constructive criticism in sharing their feedback openly, collective access can increase in number over time.

Individualism-collectivism

People in collectivistic cultures adhere to in-group allegiances and focus on developing loyalties centered on collectives whereas those from individualistic cultures tend to care for their immediate kin and themselves (Azer & El-Sherbini, 2011). The implication of the individualistic-collectivistic dimension for online course design is that conflict may arise for learners who are more accustomed to the individual pursuit of learning objectives and are inadequately prepared to adapt to co-learning endeavors. While the outspokenness of American students on discussion boards might characterize them as being more individualistic compared to their East Asian counterparts (Liu et al., 2010), online courses from the United States have a proclivity to stress

mandatory teamwork tasks. Such activities are a challenge for students who favor teacher-centered, individualistic, reproductive styles of learning (Wang, 2007).

Arguably, online peer group activities will reveal different cultural learning styles that are represented along the spectrum of Hofstede's individualist-collectivist construct. Whether it is online discussions on the message boards or other asynchronous peer group activities, teachers need to pay diligent attention to interactions and be prepared to encourage receptive-style learners to embrace an open communicative style of learning. Simply putting students together in a group, whether of mixed cultures or homogenous, does preclude that the members will work productively without conflict (Wang, 2007). As with the power distance dimension, instructors must work on team building by maintaining a teacher presence in the early stages of an online program. This may require the instructor to encourage a more active participation on a discussion board.

Lam (2015) suggests that weekly reflective journals that raise metacognitive awareness may be one strategy to prepare individualistic learning-style students into becoming more collaborative contributors. The journals could take the form of an individual blog that all classmates must read (e.g. Blogger). Students answer guided metacognitive questions such as *what did I find difficult about working in groups this week* (Lam, 2015). Having all students read and respond to each other's blogs can raise the group's awareness of learning styles and nurture the team building process. Concomitantly, students reading and commenting on weekly reflective journals will improve the overall social and cognitive online presence of the community of learners. Studies reveal that students who engage in self-reflection outperform those who do not (Liu, 2013) and are likely to assume ownership of the learning process; moreover, they may improve their ability to resolve disagreements and reach a consensus on disputes (Zher, Hussein, & Saat, 2016).

Masculinity-femininity

The acquisition of money, the ambitious drive for success, and the distinct preference for gender roles defines the attribute for *masculinity*; whereas, the *femininity* attribute focuses on harmonious relationships, general satisfaction of life, and a flexibility in gender roles (Azer & El-Sherbini, 2011; Liu et al., 2010; Vassallo, 2014). Examining the masculinity-femininity index provides an opportunity to reveal core values of all stakeholders—teachers and students—on an interpersonal level. Failure to accommodate this aspect in the teaching-learning paradigm could result in misunderstandings not easily reconciled. For example, a lesson designed to foster collaboration among the learners and encourage the trial-and-error approach may be at odds with students driven by the need for immediate success and independent learning.

Conversely, students whose core values that align with those of the teacher's may unfairly benefit over those students who cannot adapt on their own. Essentially, the onus is on the instructor to provide a variety of learning activities that resonates with different points along the spectrum of the masculinity-femininity scale. Moreover, since the enterprise of teaching in an international (i.e. multi-cultural) context may involve an altruistic appreciation for other ways of learning, lesson design should include a multi-staged approach that provides ample opportunities for practice and application before a high-stakes assessment is evaluated. Strategies for

compensating for this cultural dimension could include teacher reflection on the learning activities vis-a-vis personal values of learning and/or a questionnaire designed to raise teacher and student awareness on a metacognitive level (see questionnaire developed by Vassallo, 2014).

A study using a questionnaire that included Hofstede's cultural dimensions indicators was conducted in several multi-cultural high schools in Malta (Vassallo, 2014). The Likert scale questionnaire contained statements related to the cultural dimensions. In total 39 teachers and 445 students answered the survey and the modal scores of each dimension were compared on per class basis. In one class, it was found that a teacher scored relatively high on the masculinity index. Although the scores of a few students were close to the teacher's result, a significant majority scored high on the femininity end of the scale. This disparity was reflected in the teacher's preference for using highly competitive activities stressing individual performance. The students who conformed to the teacher's cultural value of learning were considered more "visible" (p. 160). As for the majority of the students, however, they viewed mistakes as an opportunity for growth and they placed a higher value on cooperative learning.

Although the above class is by no means representative of all the teachers on the masculinity-femininity index for that study, it raises serious concerns for teaching in online communities where the cultural profile may be more homogenous. Moreover, recent research in online learning now points to a caring and supportive online social presence as a vital component for the success of learning outcomes on individual and group levels (Kovanović, Gašević, Joksimović, Hatala, & Adesope, 2015). A teacher who scores high on the masculinity end of the scale (such as the teacher in the above scenario) might not maximize the learning potential of the class where instruction might be entirely restricted to online access. For such a teacher, a shift towards the other end of the masculinity-femininity spectrum may benefit from a more embracive or caring approach. Regardless of the dominant learning profile of the class, such a teacher would need to understand the importance of incorporating elements in course design that nurtured group cohesion—a consideration more in tune with the femininity end of the spectrum.

Culturally Sensitive Approach

Though the affordances of relatively inexpensive technologies are making it possible for learners to pursue a specialization jointly on a global scale, conflicts related to culture of learning may explain some of the reasons affecting the high attrition rates of online learning. Since how we learn is just as important as what we learn, adapting the insights derived from frameworks such as Hofstede's Cultural Dimension Model into an online curriculum design can mitigate poor academic performance related to cultural ethnocentrism. In other words, teachers of online programs need to be aware of how their own culture of learning influences their instructional approach. From Hofstede's framework, knowledge of the dynamics of the four indexes—power distance, uncertainty avoidance, individualism-collectivism, and masculinity-femininity—addresses issues often overlooked in studies devoted to circumventing barriers to asynchronous modes of instruction.

Although Hofstede's Cultural Dimensions Model may contribute some plausible explanations to ameliorate online attrition, the trend towards globalization, since the turn of this century, suggests that it is equally important to treat the constructs within the model with a

proverbial grain of salt. Given the ease with which we are able to transcend borders both virtually and physically, it may be more apropos to think of the cultural identities of online learners as more fluid and pluralistic (Saint-Jacques, 2012). In the spirit of globalized learning and courtesy of modern technologies, we may stand to gain more from being mindful of how cultures of learning (rooted in the traditional sense) can contribute to new communities of hybrid learners. To foster such communities would require modernizing teaching methodologies intent on bridging the cultural gap that exists between teachers, online program designers, and the learning community.

One thing is certain; the trend in today's global knowledge economy will continue to bring people of diverse cultures together to learn a specialization. Success in helping students stay connected and motivated to pursue their learning activities will be contingent on how culturally sensitive online learning design is to the beliefs and values that influence behavior. To turn the tide of attrition in online courses, designers and teachers would do well to acknowledge the effect culture has on the learning process. However, while including multiple teaching strategies may be more equitable and fairer to the learning needs and learning preferences of students from diverse cultural backgrounds, the added challenge for online course designers and instructors is to temper cultural teaching biases with the opportunity to present learning content in a new and hybrid way. After all, the globalization of education should be as much about the transmission of knowledge as it is about fostering a pluralistic, multicultural way of learning.

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