CULTURAL IMPACTS ON DISTANCE LEARNING, ONLINE LEARNING STYLES, AND DESIGN

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This article focuses on the multicultural nature of distance learners. To note, the heightened demand for higher education on a global scale, as well as rapid advancements in telecommunication technologies, have rendered online distance education as having potential for worldwide reach online schools in many countries. Because of this, online educators should design instruction in such a way that people from different cultural backgrounds effectively learn from it. Indeed, instructors and instructional designers, particularly those working in online learning environments, should develop the necessary skills so they are able to deliver "culturally sensitive and culturally appropriate and robust instruction." The article explores the relevant concepts such as the cultural dimension of distance learning, instructional design that is culturally appropriate, learning as impacted by culture, as well as the need for multicultural competency training for distance school instructors. The article also explores the barriers to effectiveness in delivery of culturally appropriate instruction in the context of distance learning. The theoretical foundation for the article is Freire's critical pedagogy.

INTRODUCTION

Heightening demand for higher education on a global scale, as well as rapid advancements in telecommunication technologies, have rendered online distance education as having potential for worldwide reach (Garrison & Anderson, 2003; Sadykova & Dautermann, 2009). Indeed, one of the most remarkable social developments of the past 20 years has been the increasing ubiquity of technology as well as of Internet connectivity. Hence, a primary part of life is the integration of the Internet and computer technology into almost every facet of life—from transportation, communication, and finance, to education (Gaudelli, 2006, p. 97). Needless to say, many people rely on computers and Internet connectivity in order to function effectively and efficiently. It is noteworthy that academic institutions have also increasingly been dependent upon technology in order to facilitate instruction and

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operations. Such schools have varying motivations to do so, but a commonality among them is that they seek to prepare their graduates to "function in a technology-rich, information-based society" (Gaudelli, 2006, p. 97).

Most students today are digital natives who comfortably function within a technological, plugged-in society. They are familiar with electronic tools such as e-mail, instant messaging, and the Internet (Gaudelli, 2006). These electronic tools are increasingly used for the entertainment, communication, and learning. It is important to note that teacher education has also seemingly embraced the aforementioned social developments (Lee & McLoughlin, 2007), and in so doing has become more attuned to the learning needs of students. As Gaudelli (2006) explains, schools for teacher education have integrated technological learning tools "such as computers, email, the Internet, learning software, databases, and multimedia formats to prepare candidates to work in the technologically enabled environment of the classroom" (p. 98). This represents one of the most important developments in education of new teachers over the past 20 years.

Due to the combined benefits of such technological advancements and the nature of learners as digital natives, there has been a proliferation of academic institutions offering distance learning (Kumar & Bhattacharya, 2007; Parrish & Linder-VanBerschot, 2010; Sadykova & Dautermann, 2009). It must be emphasized that although distance education has been around for many years, its format of delivery has dramatically changed as a result of digitization and globalization. The online course delivery format is appreciated for its "interactivity, multimedia/multilingual integration, and multiplatform capacity in synchronous and/or asynchronous formats all within a ubiquitous learning space, the web" (Gaudelli, 2006, p. 98).

Considerable developments in web-based distance learning in terms of pedagogical frameworks, tools and methodologies have been taking place over the past decade and educators themselves have played important roles in these processes (Maor, 2003). Nevertheless, it cannot be emphasized enough that institutions planning to offer international distance education have to prepare for a number of changes, including the multicultural nature of student bodies, designing for distance learning, and evolving student learning needs. Hence, educators should design instruction in such a way that people from different cultural backgrounds effectively learn from it (Maor, 2003). Indeed, instructors and instructional designers, particularly those working in online learning environments, should develop the necessary skills so that they are able to deliver "culturally sensitive and culturally adaptive instruction" (Parrish & Linder-VanBerschot, 2010, p. 1). This article focuses on the multicultural nature of distance learning student bodies, and how instruction could be effectively designed in light of this multiculturalism.

DISTANCE LEARNING

Several elements are converging such that teaching and learning in cross-cultural and multicultural contexts have become more common. Two factors that have to be considered here are globalization and types of distance learning.

Globalization and its Impacts

A phenomenon that has greatly impacted teaching and learning is globalization (Friedman, 2007). In fact, globalization is described as a phenomenon in which rapid advancements in information and communication technologies have led to dynamic, real-time communication across different time zones, the breaking down of barriers so that global trade may prosper as well as increasing diversity as waves of people cross borders in order to seek opportunities in different lands (Sethy, 2008). Globalization has been characterized as a progressive transformation of social structures

that has led to the creation of new ideas, values, identities and practices" (Sethy, 2008, p. 29).

Moreover, growing world trade and globalization of industries, financial systems, and numerous professions have created a world where cross-cultural interactions take place more often in comparison to the past (Friedman, 2007; Quinn, 2011). Because of increasing specialization in a number of professions, there has been a proportional increase in different types of learners seeking targeted education. Alternatively, professionals seek to remain academically relevant, and students desire to develop specialized skills so that they perform well amidst a "rapidly changing world demand access to proper educational opportunities, even if this requires international travel or distance learning approaches" (Parrish & Linder-VanBerschot, 2010, p. 2).

Today, advanced Internet technologies as well as different types of applications associated with these technologies render distance learning an excellent alternative to traditional education, thereby leading to the creation of virtual learning approaches. These virtual environments are designed in such a way that students are able to take advantage of the flexibility of different schedules. This way, they are able to juggle various concerns while still learning and earning credits in school (Koszalka, & Ganesan, 2004).

Cultural diversity has become a defining characteristic of student bodies (Sadykova & Dautermann, 2009). This has become more pronounced in online learning because people from various regions and cultures can enroll in the desired curriculum. Those who may find traditional classrooms intimidating can opt for this kind of environment because communication is based on the virtual environment. However, scholars have been emphasizing that deeply ingrained cultural values are hard to separate from learning processes (Parrish & Linder-VanBerschot, 2010). In other words, the prevailing culture of the society can become the culture in the classroom. This should not be the case because of the high level

of diversity in online education (Sadykova & Dautermann, 2009).

Increasingly, there is more appreciation of cultural diversity because it is perceived as an advantage when it comes to addressing multiple challenges that have emerged in global environments (Sadykova & Dautermann, 2009). As Parrish and Linder-VanBerschot (2010) state, it is necessary to "preserve diversity in response to the threat of loss of cultural identity in the face of globalization and because of the benefits of community cohesiveness through unique cultural expression" (p. 2). As a consequence of the increasing need for educational access, learners are now demanding "culturally adaptive learning experiences that allow full development of the individual" (Parrish & Linder-VanBerschot, 2010, p. 2).

Nevertheless, learners seeking education in a multicultural context that does not consider cultural influences and variations may encounter considerable conflict. Such conflicts occur when learning styles and preferences are incompatible with instructional approaches used by a teacher (Gaudelli, 2006). Students can be unintentionally discriminated against simply because the teacher is unaware of cultural differences. In light of these, instructional designers and teachers, particularly those working in online environments, have to effectively engage with students as well as develop the necessary competencies in such a way that they are able to deliver culturally sensitive and culturally appropriate instruction (Gaudelli, 2006).

However, there have been scholarly observations that even if culture is taken into consideration within the realm of instructional system design, it is nevertheless overlooked or underappreciated (Parrish & Linder-VanBerschot, 2010). Instructional design is considered as "an inherently social process," making it crucial that teachers "no longer take a neutral position in developing their courses and materials" (Parrish & Linder-VanBerschot, 2010, p. 3). In order for students to truly benefit from instruction, teachers and instructional design-

ers should be "cognizant of the cultures of their learners and how those cultures manifest themselves in learning preferences" (Parrish & Linder-VanBerschot, 2010, p. 3). This can involve much research on the part of those who are involved in designing curriculum.

Teachers and instructional designers continue to be sensitive to their own culture, too. This is because their own culture and worldviews simply "cannot be separated from the training that they develop" (Parrish & Linder-VanBerschot, 2010, p. 3). However, by being aware, this does not mean that one should impose one's own values to others. In addition, teachers and instructional designers should also be aware of how their own cultural standpoints impact the design decisions they make and approaches that they use. Just as importantly, instructional providers should analyze the assumptions they maintain pertaining to how "learners will and should respond, keeping an open mind for potentially unexpected responses" (Parrish & Linder-VanBerschot, 2010, p. 3). Instructional providers should also strive to maintain the balance between needing to help learners "adapt to specific professional, academic, and mainstream cultures" and needing to "embrace the culture in which the student is embedded" (Parrish & Linder-VanBerschot, 2010, p. 3). This is challenging.

Types of Distance Learning

Full discussion of the different types of distance learning and their benefits and drawbacks are beyond the scope of this article. Nevertheless, there is a need to make distinctions between them in order to clarify the context of multiculturalism in distance learning and because terminology impacts the way instructional designers create the fittest environments.

Distance Education

Distance education is the most commonly used descriptor in reference to distance learning (Moore, Dickson-Deane, & Galyen, 2011).

It usually refers to the endeavors to provide "access to learning for those who are geographically distant" (Moore et al., 2011, p. 129). On the other hand, distance learning refers more to ability (Moore et al., 2011). Therefore, "distance education is an activity within the ability [of learning at a distance]" and these terms are constrained by disparities in time and place (Moore et al., 2011, p. 129). As emerging technologies have became increasingly ubiquitous in the realm of education, the actual learning process is at the focal point to every form of instruction, and the "term distance learning once again was used to focus on its limitations associated with 'distance,' that is, time and place" (Moore et al., 2011, p. 130).

Over time, distance learning transformed in order to refer to other types or forms of learning, including online learning, e-learning, mediated learning, online collaborative learning, virtual learning, and web-based learning, among others (Moore et al., 2011). As new technologies evolved, distance learning has become more associated with learning through the use of computers although many continue to use the term in reference to another type of delivering instruction over distance, which is the home study courses offered by a school.

E-learning

E-learning pertains to instructional methods and course contents that are delivered through the Internet, Intranet, CD-ROM, audio and videotape, satellite broadcast, and interactive television (Benson, 2002). There are also some who define e-learning as featuring a certain degree of interactivity (Garrison & Anderson, 2003).

Online Learning

The term online learning is somewhat trickier to define. It typically refers to learning experiences gained through the use of a technological format (Benson, 2002). Online learning has also been described as learning through

information and communication technologies supported formats (Córdova & Goodnow, 2009). It is considered as the more contemporary version of distance learning that enhances access to educational opportunities for nontraditional and even unprivileged learners (Benson, 2002). However, there are also authors who emphasize not only accessibility in the context of online learning, but also its "connectivity, flexibility and ability to promote varied interactions" (Moore et al., 2011, p. 133).

ONLINE LEARNING STYLES

In contrast with face-to-face learning in traditional classrooms, online learning is not constrained by time or location. An important aspect of online learning is the emphasis on students' "self-management of their own learning" (Yu-Chih, Yu-Ching, & Sanchez, 2013, p. 144). As mentioned earlier, online learning contents may be delivered through different media features, including, audiovisual components, graphics, textual information, as well as hyperlink functions. It must be noted that the preference of students when it comes to learning online may contrast with preferences among students in traditional face-to-face environments. For instance, the way online students access materials in online learning management systems, interact with them, and study them is vastly different from the way classroom students do it (Yu-Chih et al., 2013).

When considering the nature of the online classroom, online learning, and learning style categories discussed in extant literature, there are four categories of learning styles in online learning environments.

Perceptual Learning Styles

With this learning style, reference is made to the predominant use of a specific perceptual sense in learning. There are types of learners who prefer textual information in learning. On the other hand, there are also those who like visual presentations, such as charts and figures (Yu-Chih et al., 2013). Some of them appreciate a strong auditory component wherein the learner seeks sound and voice information. Lastly, there are those who enjoy active learning where there is a preference for adding their own touch through learning from experiments.

Cognitive Processing Learning Styles

This refers to the "cognitive tendency for processing information" (Yu-Chih et al., 2013, p. 144). Learners have preference for abstract or conceptual methods for information processing. On the other hand, there are also those who prefer learning through daily experiences or through concrete examples (Yu-Chih et al., 2013). Included in this learning style is the serial learner who prefers serial and linear learning (Yu-Chih et al., 2013). Another type of learning style that falls under this category is the random style, where the preference is for "learning in a nonlinear sequence or order" (Yu-Chih et al., 2013, p. 145). Another learning style here is the holistic or global style, where there is "preference for overall understanding of the information" (Yu-Chih et al., 2013, p. 145). An analytic style is one where the learner prefers critical analysis of all elements of a reading material or information.

Social Learning Styles

Social learning styles take into consideration personality types that pertain to preferences when it comes to social engagement and personality traits in learning (Yu-Chih et al., 2013). Under this learning style, there are some who prefer studying alone while there are those who prefer studying with peers because they like the interaction (Yu-Chih et al., 2013). On the other hand, there are also learners who seek guided learning, because they feel they will benefit from the guidance of their teacher. Another learning type here is the persistent one, who has the propensity to focus on learning for extended periods of time.

Lastly, the observer prefers "observation rather than active involvement in discussion or interaction with others" (Yu-Chih et al., 2013, p. 145).

Problem-Based Learning Styles

Interestingly, the problem-based learning (PBL) style seems to combine some of the characteristics of learners falling under the three aforementioned categories. PBL was first developed in order to address challenges found in traditional teaching and learning (Wheeler, Kelly, & Gale, 2005). PBL seeks to facilitate higher levels of cognitive engagement as described in the cognitive processing learning style (Wheeler et al., 2005). PBL promotes development of skills by means of "complex, real-life problems and motivates students to adopt deeper approaches to study" (Wheeler et al., 2005, p. 126).

PBL also encourages "critical thinking, collaborative learning, verbal and written communication skills and lifelong learning skills" (Wheeler et al., 2005, p. 126). Wheeler et al., (2005) explained that "the power of PBL lies in its facility to present learners with authentic problems they might encounter in the 'real world'" (p. 127). Students who prefer this learning style like practicing their problem-solving skills as well as researching more deeply into the varying contexts of a given problem. In this learning style, the student looks to their teachers as guides and facilitators in the process of learning, reminiscent of some preferences in the social learning styles.

THE IMPACTS OF CULTURE ON LEARNING STYLE PREFERENCES

Yu-Chih et al. (2013) conducted a review of literature in order to compile results of earlier research, such as Hofstedes's cultural dimension, which pertains to the impacts of culture on learning style preferences. In previous decades, school instruction tended to focus only on course designs as well as instructional strategies that teachers will apply. It was generally believed that such insights were sufficient for the promotion of effective learning (Yu-Chih et al., 2013). However, as more studies were conducted in the field of learning, it became evident that teaching quality is positively associated with the characteristics of students, teaching styles, as well as the teaching environment (Yu-Chih et al., 2013).

Here, students' characteristics in the context of learning styles pertain to a person's combination of stable cognitive, affective, and physiological states (Yu-Chih, et al., 2013). Therefore, learners' behavior refers to how they perceive, respond, and interact with the environment (Yu-Chih et al., 2013, p. 41). Notably, studies show that students who learn within an environment that is suitable for their learning styles tend to garner higher test grades as well as learning attitude scores than students who learn in an unsuitable environment (Yu-Chih et al., 2013). Moreover, when a student is transferred form an unsuitable learning environment into a suitable one, there is a resulting improvement in academic performance (Yu-Chih et al., 2013).

Yu-Chih et al. (2013) reported the results of a study conducted among Armenian, African, Hispanic, Hmong, Korean, Mexican, and Anglo cultures as well as Mexican-American high school and university students; all ethnic groups preferred learning that is kinesthetic, auditory, and tactile (Yu-Chih et al., 2013). Except for Anglo students, the students preferred visual learning styles. These findings are supported by other studies showing that Asian learners are more of visual learners than verbal learners. Moreover, Armenian, Korean, and Anglo students tend to not like cooperative learning, and university-level students are more conscious of their own learning preferences in comparison with secondary school students (Yu-Chih et al., 2013).

For an online instructor or for instructional designers, it could be challenging to determine the specific learning styles and preferences of online students. However, the importance of discerning these specific learning preferences

must be emphasized because failure to do so could lead to too many dispersed learning styles, or assessment tools adopted inappropriately for e-learning environments (Yu-Chih et al., 2013, p. 242). In light of these, online teachers and instructional designers need to harness learning style assessment tools that are suitable for online learners considering that this could facilitate effective learning. Needs assessment is crucial at this point, and teachers need to keep in mind that this could be an outstanding primary activity before actual instructions begin (Koszalka & Ganesan, 2004).

DESIGNING CULTURALLY APPROPRIATE INSTRUCTIONS

Studies show that teaching methods and styles do not have to threaten the sociocultural backgrounds of the learners (Kumar & Bhattacharya, 2007, p. 114). Indeed, teaching methods can vary significantly. There are teachers who want to be the focus of instruction, while there are also those who make learners significantly engage with their peers. Other teachers also encourage learners to look for their own resources. However, studies also attest that certain cultural barriers prevent effective interaction between teachers and learners. For instance, in certain societies, students who ask questions in class are showing disrespect to teachers (Kumar & Bhattacharya, 2007). In other communities, it is frowned upon for female students to speak up in class (Kumar & Bhattacharya, 2007).

At the other end of the spectrum, there are societies in which a cultural barrier is in the form of an all-of-us-being-equal mentality that impacts communication and mutual respect (Kumar & Bhattacharya, 2007). Many teachers in Western societies do not like treating students as subordinates and speaking down at them (Kumar & Bhattacharya, 2007). In other cultures, deep consultations are first conducted before any instruction can take place (Kumar & Bhattacharya, 2007). In certain African states, "the Kgotla system of long and sus-

tained meetings is held to thrash out any point and any new development taking place" (Kumar & Bhattacharya, 2007, p. 114).

In India, the Panchayat system takes a similar approach. Another consideration here is, for instance, teachers who strictly require meeting of assignment deadlines from students. In certain societies, Saturdays are intended for family occasions and other functions. In other cultures, weekends are reserved for prayer activities and these tend to have greater importance than assignments (Kumar & Bhattacharya, 2007). Hence, teachers, especially those delivering online instruction, cannot always expect students to turn in long assignments on Mondays. In consideration of these cultural impacts on learning and teaching, it is of utmost importance that teachers and instructional designers clearly identify their purpose and objectives in teaching (Tyler, 1949). One of these is the delivery of culturally appropriate and culturally sensitive instructions. The following are some theoretical foundations that can guide in designing culturally appropriate online instructions.

Pedagogy

In Freire's (2000) seminal work, *The Pedagogy of the Oppressed*, he maintains that education orients students to either accept a problematic status quo or embody the practice of freedom such that they are able to deal with realities of life that, ultimately, will transform their world for the better. Therefore, it may be said that Freire (2000) seeks to empower learners based on their social realities. Freire (2000) promotes a praxis-oriented and socially constructed approach to instruction so that students will gain the appropriate skills to deal with the challenges of life. Students can achieve these through the acquisition of proper skills, expansions of their academic knowledge, improvement of critical thinking skills as well as embracing of curiosity regarding society, power inequality and change (Pishghadam & Naji Meidani, 2012, p. 465).

Andragogy

The term "andragogy" pertains to approaches and methods in delivering instruction to adult learners (Knowles, Holton, & Swanson, 2011). Knowles et al. (2011) point out numerous aspects about adult learners that distinguish them from other learners, which instructional designers have to keep in mind. First and foremost, adult learners are those whose "intellectual aspirations are least likely aroused by the rigid, uncompromising requirements of authoritative, conventionalized instructions of teaching" (Knowles et al., 2011, p. 38). In an adult class, the students' experiences are of equal importance as the teacher's knowledge. Indeed, as Knowles et al. (2011) emphasize, in an adult class, it is difficult to discern whether learning is greater for the teacher or the student. Therefore, in adult learning classes, the students and the teacher share authority. It is also important to note that motivation to learn among adult learners is driven by needs and interests that only education can meet. Hence, these needs and interests are the proper starting points for online teachers (McLoughlin & Lee, 2008).

Online teachers also need to keep in mind that the orientation of adult learners is life-centeredness. Therefore, in order to effectively organize adult learning, the teacher needs to focus on life situations rather than subjects (Knowles et al., 2011). Just as importantly, adult learners have a strong desire for self-direction (Knowles et al., 2011). Taking this into consideration, the online teacher should "engage in a process of mutual inquiry with them rather than to transmit his or her knowledge to them" and then assess students' "conformity with them" (Knowles et al., 2011, p. 40). Lastly, individual differences tend to deepen with age. Hence, adult education must "make optimal provisions" for disparities in "style, time, place and pace of learning" (Knowles et al., 2011, p. 40). As seen here, the adult learner is not compared against young learners but to "conventional learners." The implication here is that young learners may also benefit by placing importance on experiences, needs and interests, life situations, individual differences and self-direction.

CONCLUSION

Increasing need for higher education, combined with rapid advancements in information and communication technologies, has led to the increasing popularity of distance learning and education. Distance learning has made it possible for working individuals to go back to school. The flexibility of time and assignments make this mode of learning popular especially among those who have many things to attend to. Most importantly, it has expanded the classroom boundaries to a great distance that students from all over the globe have an equal opportunity to obtain an educational experience.

However, it is important to note that including students from different cultural backgrounds in an online classroom can significantly impact teaching and learning styles and preferences. Teachers and instructional designers need to develop online course content that is culturally appropriate and culturally sensitive. In line with the need to develop curricula that are culturally sensitive, there is a need for teachers to also have the ability to deal with different cultures. This may require that teachers attend culture seminars so that they will exercise prudence in terms of how they handle classes. Being culturally sensitive would also involve knowing about students' beliefs and practices so that the teachers refrain from offending them with careless instructions and examples.

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