Culturally-Sensitive E-Learning Practices for Teacher Education
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ABSTRACT
With increasing mobility, teacher educators need to address and accommodate cultural realities. Hofstede’s model of cultural dimensions provides a framework for examining culturally-sensitive teacher training implications. Culturally-impacted issues and solutions are explained relative to the relationship of teacher training to the workplace, and to online teaching and learning. Specific strategies are suggested to address language barriers, student-teacher relations, choosing resources, learning activities, technical issues, and assessment.

Introduction
As globalization impacts economies, it necessarily impacts people’s careers – and the preparation for those careers. Concurrently, people are seeking distance education delivery options in order to get the training needed from experts who may reside continents away. Additionally, more families are mobile so that student populations are increasingly diverse. Globalization has also led teacher education and K12 curriculum to address more international and issues.

These cross-cultural interactions can challenge student thinking and attitudes. Particularly as Western educational philosophies do not reflect the preponderance of educational approaches worldwide, it behooves U. S. teacher educators to address cultural nuances, particularly in online learning environments. This chapter examines cultural impact on education, focusing on computer-mediated learning environments. It addresses ways that teacher educators can address and accommodate cultural realities and their interactions.

Cultural and Learner Background
Culture may be defined as “the customary beliefs, social forms, and material traits of a racial, religious, or social group” and “the set of shared attitudes, values, goals, and practices that characterizes an institution or organization” (Webster’s Dictionary). An individual may belong to several cultures: family, worksite, neighborhood, race, profession, social club, political party, country. Likewise, a group may belong to several cultures; technicians may be members of a site staff, a union, a system, a state organization, a national organization, and an international organization. Some of these cultures may overlap or even contradict, in which case, the individual or group must either live with the disequilibrium or resolve the conflict (i.e., reject one or the other, reject both, or incorporate parts of each). In teacher education, cultural issues apply to the learner, the instructor, the learning environment, the intended workplace, and the profession itself.

Hofstede’s 1980 model of cultural dimensions and Biggs’ 3P model of teaching and learning provide useful frameworks for examining culturally-sensitive teacher training implications online (noted in italics).

- **Power distance.** What is the degree of equality between people? How equitable is the power distribution as defined from low-status people? In low-power societies, status is less important. Power distance impacts teacher-student relations; online course set-up can emphasize teacher-student interaction or peer interaction.

- **Individualism vs. collectivism.** People in individualistic societies tend to belong to several groups, each of which is loosely-knit, while collectivist societies tend to have a few, well-defined groups who are highly loyal. In-group refers to a collective in which members are highly interdependent and have a sense of common fate; groups to which they do not belong are out-groups. Learners and teachers have preconceived attitudes about individual vs. cooperative efforts, which impacts how assignments are set up in terms of group work, if any.

- **Masculinity.** To what degree are genders differentiated? Are traditional gendered roles supported in terms of achievement, control and power? How are women valued relative to men? Online, males might be more competitive or need more praise. However, it might be difficult to discern gender online.

- **Uncertainty avoidance.** How tolerant is society of uncertainty and ambiguity? Are different options acceptable or are strict rules the norm? How structured should learning activities be? Does assessment ask for one right
More specifically, different cultures tend to reinforce different learning preferences. For example, collective societies tend to reinforce field dependent and non-linear learning. Instructors need to start a unit by giving the Big Picture, and they provide such learners with more guidance along the way (Chen & Macredie, 2002).

The impact of culture may be analyzed using Biggs’ 1978 3P model of teaching and learning. Presage deals with experiences before learning takes place (i.e., learning characteristics, prior knowledge and experience), process occurs during learning (i.e., learning conditions, activities), and products focuses on the outcomes of learning (e.g., assessments, application, context). Thus, learner experiences are interdependent with situational elements such as teaching factors (style, institutional procedures, assessment) and the learning environment (e.g., learning activities, social climate). Biggs also differentiates surface approaches to learning (i.e., reproducing information), deep approaches (thorough understanding), and achievement orientation (i.e., focus on grades). Biggs, Kember, & Leung (2001) emphasize the importance of identifying which factors are universal and which are culturally-defined. Most significant are those practices that are imposed as if universal (e.g., outlining a report) that actually reflect specific cultural norms (e.g., North American); learners outside that teacher-centric culture may feel discounted or under-prepared.

In an e-learning environment, technology significantly impacts student learning, and also is subject to cultural influence. For instance, learners might have different degrees of access due to cultural attitudes about technology, socially-constructed gender role expectations, and socio-economic values. World experience and knowledge impacts learners’ ability to locate and evaluate online information. Even social attitudes about language acquisition and attitudes about English can impact online use. These realities will probably not change over time because of the continuing advancements in technology. Local economics will still stifle access to technology at least at the upper end so that the digital divide will remain (McMahon & Bruce, 2002).

As they work in cross-cultural settings, or at the very least work with learners from different cultures, teacher educators should strive for cultural competence. Kalyanpur and Harry (1999) list several benchmarks that note progress in this endeavor. Their concepts are synthesized as follows.

1. **Cultural knowledge**: becoming familiar with cultural characteristics, history, behaviors and values of people of another cultural group.
2. **Cultural awareness**: understanding of another culture, changing attitudes about culture, and open flexibility in relating to people of another culture
3. **Cultural sensitivity**: realization that cultural similarities and differences exist, without assigning relative value to those differences.
4. **Cultural competence**: congruent set of behaviors, attitudes and policies to enable one to work effectively in cross-cultural situations.
5. **Cultural proficiency**: a way of being that enables people to interact with others who are different from them.

To attain such cultural competence, teacher educators should have formal or informal education and experience in cross-cultural communication, facilitation and counseling skills, and strong background knowledge about relevant cultures and their norms. Participation in international programs can increase teacher educators’ repertoires of instructional strategies, expand their cultural sensitivity and perceptions, and influence their interpersonal relations in education (Rapaport, 2008). Teacher educators also need to confront their own cultural biases and do personal emotional work to improve their own mindset. They should be open to new experiences, patient, empathetic, and psychologically accessible (Craig, 1996). In any case, educators need to learn about the population they serve: their backgrounds, their interests, their needs, and their resources. Such tasks can be difficult in online environments without explicitly asking for such information in non-threatening ways.

**Connecting Training to the Workplace**

Be it teacher education or K12 curriculum, online student populations are increasingly diverse both in age as well as in cultural background and experience. The traditional image of the “melting pot” where “foreigners” became acculturated and Americanized has given way to a tossed salad metaphor. All too often, cultural sensitivity is overlooked when designing e-learning curriculum and delivery. Not only should instructors be aware of the
impact of culture in their course, but they should leverage those cultural differences to provide a richer educational experience.

In considering culture as they design training, teacher educators need to know where pre-service teachers intend to work. In his work on cross-cultural training, Cutler (2005) asserted that learners who are planning to work at a site that is close to them geographically, they are likely to know local cultural norms if they have lived in that area for a while, even if they personally do not agree with those norms or hold lower status (e.g., a societal caste system). Those learners – and the instructor -- can focus on the content. It should be noted, however, that a geographically remote instructor, no matter how qualified he or she is, needs to be aware of the target learner population’s culture so that the content and its application will align with local practice.

Teacher educators of diverse students need to help those pre-service teachers navigate within the dominant or target culture successfully. Cutler (2005) lists several relevant skills: learning social expectations and norms, identifying the cultural assumptions being made about presented (and missing) content, and communicating in socially acceptable ways (e.g., avoiding jargon, understanding social space). Furthermore, educational practice itself reflects culturally-defined philosophies. For example, a belief in the professor as the all-wise transmitter of knowledge opposes the idea of the instructor as a learning environment co-constructed with students. The student who is used to rote memorization may well feel uncomfortable with inquiry-based learning. These philosophers affect not only pre-service teachers but the students that they ultimate teach, and the school community in which they work.

As learners straddle two (or more) cultures, they need to interpret information in light of differing perspectives, and negotiate the relevant application of such information to their workplace, be it local or remote. In their study of Native American students, Alliman-Brissett and Turner (2005) found that when the academic ethos contradicts familial values, learners might artificially separate those two worlds, try to integrate the two, or reject one set of values. Instructors should take care to respect each student’s cultural stance while noting the importance of learning about the social climate to be experienced as an employee. Furthermore, instructors would do well to contextualize content in terms of students’ local reality or at least build on those realities as students need to assimilate new cultural understandings.

Curriculum as a Condition for Cultural Sensitivity in Education

Just as teacher education, and education in general, is culturally contextualized, so too are the conditions for cultural-sensitive curriculum. As teacher educators seek support for a culturally-sensitive curriculum, they need to examine the cultural landscape in order to discern – and align with – shared values and expectations. In his adult training handbook, Craig (1996) asserted that ignorance or denial of cultural norms will spell disaster for cross-cultural initiatives. If the most influential culture shares the goals and strategies of cultural sensitivity, then the teacher educator has a natural “in.” If the culture is strong, then the path to success is even better paved. On the other hand, a strong culture that discounts cultural sensitivity and has a closed attitude can pose challenges. A culture that undervalues cultural sensitivity may be won over if they have a more accepting nature – and can be persuaded by an overlapping stronger culture to join in the overarching goal. Ideally, Culturally-sensitive teacher education should be explicitly addressed and integrated throughout the organization rather than isolated in some sort of parallel universe of learning.

In any case, both the dominant and minority cultures should learn about each other’s cultural knowledge and values so they can promote mutual respect and understanding. A number of frameworks for multicultural education exist. Typical elements distilled from White (2002) and Lowenstein (2009) include:

- cultural pluralism theory, commitment and affirmation
- knowledge and identity construction from cultural assumptions and social positions
- critical awareness
- social and educational issues facing minorities
- prejudice reduction, social justice and equity
- reconstruction of social structures to facilitate individual and group empowerment
- skills and strategies for addressing multiculturalism.
Solutions to Language Problems

Increasingly, students from different cultures and language background are found in the same online course. Focusing on cross-cultural technical education, Laroche (2003) noted that international students usually have taken English courses before they start teacher education, but that instruction is typically provided by teachers whose primary language is not English. British English (with a British accent) is more likely to be taught than American English, which can also impact the meaning of common terms, such as “bonnet” for car hood. Additionally, the English taught is unlikely to address technical educational vocabulary.

Fortunately, as Liaw (2006) notes, e-learning tends to be text-based (with some visual support), which enables learners to consult dictionaries and peers to understand concepts. Additionally, asynchronous discussion enables learners to take their time crafting their responses in their primary language and then translating their words with less time stress. The anonymity of online communication can also make females from male-dominated cultures feel more comfortable voicing their opinion. On the other hand, online learning environments usually preclude the use of visual and audio cues to discern meaning. Students are also less likely to get just-in-time clarification.

The following specific tips, largely based on Sarkodie-Manash’s work (2000), apply to teacher education in online environments.

- Make the structure of the class explicit.
- In all communication, use plain English and short sentences, and avoid idioms. Rephrase and simplify statements. Define new terms. Use meaningful gestures.
- If using audio files or online speech, speak clearly and slowly without accent.
- Make documents comprehensive.
- Use repetition, paraphrasing and summaries.
- Focus attention on essential vocabulary needed for the specific training or profession. Provide bilingual glossaries and visual references.
- Use visual aids and graphic organizers to help learners understand content organization and relationships.
- Include frequent comprehension checks and clarification questions, such as online quizzes.
- If possible, provide instruct in the learner’s primary language (unless learners represent several native languages). Pair students linguistically. Consider providing resources in primary languages. Check the readability of documents, and locate materials that include visual or aural cues. It should be noted that some images may be unrecognizable, demeaning, or have different meanings to difference cultures.

E-Teaching Factors

Hofstede’s 1980 model of cultural differences can aid teacher educators in creating culturally-sensitive online learning environments. Domer and Gorman (2006) offer several useful suggestions.

Student-Teacher Relations. Learners from high power-distance cultures expect formal, hierarchical relationships with their teachers. To ease their stress in more egalitarian or constructivist courses, instructors can clearly and explicitly define their roles, and work with students to make clear decisions about course expectations. Personal acknowledgment rituals and relationships can also counterbalance power distance formality (Gurubatham, 2005). They can also tell students the appropriate term of address to use (e.g., Professor Ramirez, Dr. R. Paulo). Traditional males may feel uncomfortable having a female instructor, although e-learning environments tend to mitigate this issue. Providing information about the instructor’s expertise and status, along with testimonials from high-status males, can further elevate a female teacher’s credibility. Students who are shy about asking for help should have several options available: confidential email, intermediation by a course student representative/spokesperson, peer assistance, referrals to resources such as online tutorials. Instructors can preemptively help this situation by frequently checking for understanding (e.g., short online quizzes and quick writes) and giving all students immediate feedback.

Topics of Discussion. Instructors should be aware of possible taboo subjects (Laroche, 2003). This issue might emerge in health issues where gendered practices might inhibit student discussion. Instructors would do well to consult their peers in relevant countries to find out ahead of time what topics might be sensitive to their learners. Accommodations for alternative topics, resources, or ways of learning should be provided so as not to disadvantage
affected learners. In almost all cases, connecting course concepts with real world context and applications helps all learners, not just field dependent ones.

**Choice of Resources.** In most cases, instructors choose the material to be covered in a course or training. Craig’s training handbook (2005) state that selection or filtering processes may reflect cultural bias that might disadvantage some international students; specific ideas might be supported and other omitted, thus shutting down opposing viewpoints. Even a simple factor of choosing examples reflecting only urban practice might ignore the needs of students working in rural areas. At the least, instructors should enable students to choose from a wide spectrum of reading materials reflecting a variety of perspectives. It should be noted that students tend to find and understand web-based information more quickly when the content is created by designers from their own cultures (Faiola & Matei, 2005). Alternatively, instructors should permit students to seek self-relevant sources. This latter approach might trouble instructors who want to control students’ reading materials, which, in itself, reflects a certain cultural value. Likewise, in some cultures, such as China, students typically read only what the instructor chooses, so self-determination of materials can be uncomfortable for them at first. Furthermore, as they seek relevant resources, many non-U.S. students have little experience using academic libraries and may hesitate before asking librarians for assistance (Laroche, 2003).

**Learner Participation.** Again, clear expectations and course norms from the first contact will help reduce learner confusion and distress (Larouché, 2003). If the student population includes a mix of cultures, then a corresponding combination of individual and collaborative activities would be appropriate. Likewise, a mix of cooperative and competitive activities allows learners from different backgrounds to excel at different points. Alternatively, instructors can provide students with options to do work independently or with others. To accommodate learners from collective cultures, instructors may need to initiate discussion or start groups off when introducing problem-based learning; step-by-step guidelines also facilitate field dependent learners. In any case, the e-learning environment should be safe and comfortable for all learners.

**Learning Activities.** Probably the best solution for culturally-sensitive activities is inclusive instructional design that accommodates all students. Here are some other specific suggestions, based on Rapoport’s work (2008).

- Some students are not used to self-directed learning. Rather than telling students the answer, the teacher can provide process simulations that can be used to find answers.
- Students may be accustomed to rote learning facts, rather than applying skills. Instructors can help students apply general principles to a variety of research situations by integrating case studies.
- Students might not be used to critically evaluating information. Teachers can provide checklists or criteria for students to use in evaluating sources.
- Many students are only interested in what is needed to pass exams (achievement orientation). Teachers can invite online speakers who emphasize the importance of knowledge and skills for lifelong success as well as immediate career advancement.

In some cases, students need to adjust to the targeted culture, be it the specific workplace or teaching as a whole. Lopez-Valedez et al. (1985) offers the following ideas that can facilitate the transition. Produce videotapes of appropriate and inappropriate workplace behavior, which can facilitate student discussion. Enable students to listen to or read job interviews. Seek opportunities for students to combine course e-learning and internships.

**Technical Issues.** On one hand, technology enables learners from around the world to get teacher training at the click of a button. On the other hand, physical and intellectual access to technology remains uneven in different countries. In studying the digital divide in ICT, Cullen (2001) explained that some areas still lack electricity, and some nations lack a stable internet infrastructure. While cell phones have become ubiquitous, desktops and software programs may be less common. Hardware still is too costly for many people, and even educational institutions may have little equipment. Particularly with the increased use of multimedia, which drains broadband signaling power, learners in developing countries may be severely disadvantaged. Even time zone differences can be a challenge for students who have to log in at 3 am in order to participate in live chat. Furthermore, learners reflect a vast spectrum of technological experience and expertise. Millennials may be used to the internet since childhood, but other learners may still have problems navigating with a mouse. Additionally, learners may have an unrealistic idea of their own technical ability; instant messaging does not constitute technological fluency. The deeper issue of evaluating online information also poses an issue, particularly for learners who are not world-savvy. Laroche (2003) offered several strategies to deal with these technology constraints. Instructors need to find out what technological access their students have, and aim for the lowest
common denominator, which might consist of a frameless set of text-based web pages that are accessible via cell
phone. In a couple of cases, educational institutions have developed partnerships so that equipment could be loaned
to the other country. Application programs should be free and web-based as well, such as Google’s suite. Learners
should be able to get technical assistance at any time, hopefully, in a language that they can understand. Instructors
should also be sure to show learners how to navigate the online training, and use the required technology tools.
Additional support may be in the form of a list of online tutorials, tech buddies, local tech center help, and
alternative ways to demonstrate competence such as phoning in responses.

Online Assessment Issues

Culture impacts student online performance when literacy skills are required. In terms of language, even
simple tasks such as following directions can disadvantage some students. Some of the measures that can be taken
to mitigate cultural discrepancies include: giving shorter tests and recall items rather than tasks that require language
and literacy skills (Teresi, et al., 2001), provide accurate translations in those cases where language ability is not the
element being tested, provide bilingual glossaries, consider the option of having students demonstrate their skill
kinesthetically (e.g., video recording their performance or having a local expert verify their ability). Instructors also
need to make sure that the test is not culturally biased, that is, one cultural group does not outperform others
systemically. Bias usually occurs when cultural knowledge is assumed (e.g., use of bidets, knowledge of July 4,
eating habits). Images too may have culturally-defined meanings or connotations (for example, owls connote
different attributes in different cultures). The easiest approach is to check with students via non-test activities about
their understanding of textual and visual information.

Assessment also needs to take into consideration affective elements. For instance, non-cognitive variables
accounted for about a quarter of the variance in grade point averages for African Americans at predominately white
universities; at black universities, non-cognitive variables accounted for about 18 percent of grade average variation
(Lockett & Harrell, 2003). The author concluded that the relationship between students and faculty influence self-
confidence and self-efficacy. Even though e-learning might mitigate such differences in perception, language use in
written and oral communication may indicate a person’s cultural background, and might influence some party’s
perceptions either of the instructor or the interaction. Zhang (2000) found that deep understanding correlated
significantly with achievement (as opposed to surface reproduction of information), and therefore recommended that
instructors assess accordingly.

Future Trends

Probably the two greatest changes in culture-sensitive e-learning will arise from learner characteristics and
technology. As technology permeates the global society, people come into contact with other cultures more
frequently and deeply. In some cases, those interactions may be characterized as clashes. Misunderstandings occur
because of tacit assumptions and cultural perceptions. Thus, the need for understanding different cultures is more
important than ever. On the positive side, more content is being created in non-English speaking cultures, thus
flattening out the language frequency distribution. Of course, such a rise in non-English materials will require
teacher educators to evaluate and verify the content’s quality. In the process, cultural knowledge will be more prone
to explicit discussion and negotiation. Thus, cultural competency will need to grow with the technology. Ideally,
knowledge will become more culturally rich and varied.

One interesting recent development is localization service. Private businesses are making differentiated
online documents that will be culturally acceptable at the local level in terms of language, measurement units,
geographic representations, gender role, color connotations, and so on. Even metatagging (i.e., describing an item
using subject headings, labels, etc.) can be localized to facilitate culturally-defined retrieval patterns. “Intelligent”
tutoring systems are also being developed to offer different content and media based on the user’s demographic
profile. While an attractive idea, localization services tend to offer a boiler-plate solution. They may lack of deep
domain knowledge, and they certainly do not know the students who are taking the training. So, at best, this service
can be used to provide a draft course look, but it needs to be customized by teacher educators conducting the
specific training.

As learners grow up with technology (i.e., digital natives), e-learning will probably be less of a challenge
than for today’s less tech-savvy learners. Online instructors too will become more agile with the media, although
the technology bar -- and accompanying expectations -- will be set ever higher. Certainly, the role of the learner in culturally-sensitive elearning environments will grow as interactive Web 2.0 features are incorporated meaningfully in teacher education. Not only are students becoming producers of information, not just consumers of information, but they are building knowledge collectively, facilitated by technology-based collaboration tools.

The result may well be labeled teacher education 2.0. Examples of this new vision of teacher education include chat-based learning sessions, streaming media tutorials with interactive databases, and social networking applications. More than even, Web 2.0 can enable teacher education to become a participatory network, enabling learners to access information and each other. Teacher education instructional design then should provide a coordinated framework for participatory adult learning. Teacher educators can provide a personalized social network with individual learning spaces. This learning network would include structured information and instruction provider by educators and learners, as well as permit social tagging for customizable access to these resources and learning activities.

Conclusion

The following strategies summarize the key points for teacher educators to follow in designing culturally-sensitive e-learning.

- Provide clear information and expectations about teacher training, including content, technical aspects, procedures, participation, assessment, available support.
- Get to know the students, and help them learn about each other. Obtain and share demographic information. Provide opportunities for students to share their perspectives and experiences, thus enriching the course content.
- Create a positive class climate. Make learning safe and comfortable so that students who are not used to voicing opinions or do not want to take intellectual risks will be supported in their efforts.
- Structure learning for meaning. Bring in cultural differences rather than masking them. Help students to connect training content to their own environments.
- Provide access to resources, and give students choices about the types of resources to use. Offer instruction or other kinds of support if students are not used to locating resources independently.
- Provide support and scaffolding for students as needed: online tutorials, local expertise, peer assistants, translation tools, technical help, time management, etc.
- Give students time to process and evaluate information. Foster critical thinking by modeling analytical information processing.
- Help students clarify and justify their understanding. Encourage study groups and study buddies as a way to refine their knowledge.
- Give timely and specific feedback throughout the training.
- Help students self-monitor and express their learning. Give them opportunities to demonstrate competencies in several ways: written, visual, orally.

In any case, in order to provide meaningful online training, both teacher educators and their students need to become culturally competent: open to learning about other cultures and sharing one’s own culture, able to change personal perspectives, and able to communicate effectively across cultures (Liaw, 2006).

REFERENCES


