

Culturally Responsive Pedagogy and Online Learning: Implications for the Globalized Community College

By: Daniel R. Smith and David F. Ayers

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Abstract:

Implicit in the open-door mission of the community college is the mandate that every learning experience should offer full equity and inclusion for all learners, including those of diverse cultural backgrounds. This mission is paramount, given the cultural diversity represented among learners served by the globalized community college. This paper presents a cross-section of research, practice, and discourse focused on expanding our knowledge and understanding of the diverse learning needs of community college learners. The relevance of the literature to the planning, design, and implementation of distance-learning is discussed. In the end, the authors offer distance-learning instructional strategies that may accommodate the unique needs of Hispanic/Latino learners. Implications for community college educators are discussed.

Article:

Implicit in the open-door mission of the community college is the mandate that every learning experience should offer full equity and inclusion for all learners, including those of diverse cultural backgrounds. The commitment to equity and inclusion in today's globalized community college (Levin, 2001) has been stalwartly tested with the increasing reliance on instructional technology and the ascendance of online learning. Unfortunately, technologically mediated learning experiences may accommodate the singularities of a dominant Western culture at the expense of cultural responsiveness to the cultural backgrounds of all participants. More specifically, the dominion of Western culture may be amplified through the way in which instructional technology mediates interaction among participants in the learning experience.

Undeniably, the introduction of information technology into the community college learning experience has created not only a unique set of promises for equity and outreach for members of marginalized cultures, but also new problems resulting from the development of technology-mediated instruction within the traditional Western cultural hegemony. In this view, distance learning reflects both promise and predicament. It offers members of marginalized cultures unprecedented access to a global knowledge base. It also empowers members of marginalized cultures to showcase their own language, values, arts, beliefs, and traditions. Conversely, the pro-Western bias inherent in the technological foundations of distance learning presents an obstacle both to access and to understanding. This bias also embodies powerful incentives for embracing Western cultural standards to the detriment of aboriginal cultures. In order to plan,

design, implement, and assess online learning experiences that are culturally responsive, community college educators must understand the cultural perspectives, learning styles, and cognitive and psychological ethos of non-Western peoples. Unless cultural diversity is accounted for in both the distance and traditional learning environments, the open-access mission of the community college will have no meaning within the globalized context of late modernity.

This paper presents a cross-section of research, practice, and discourse focused on expanding our knowledge of, and sensitivity to, the diverse learning needs of community college learners. In this paper we will address how members of different cultures (a) communicate, perceive their world, and relate to both cultural “insiders” and “outsiders,” and (b) assimilate and process new learning, behave in different educational settings, and make their needs and interests known. The literature is reviewed in four sections. In the first section we explore how membership in culturally defined groups relates to differences in world view and individual learning styles. In the second section, we turn our attention to specific challenges that cultural diversity poses to distance and online learning. In the third section we discuss current theories and practical methodologies for accommodating cultural diversity through digitally mediated distance learning. Finally, in the fourth section we present various practical applications of culturally responsive pedagogies and the extent to which they accommodate the unique needs of Hispanic/Latino learners.

CULTURE AND LEARNING

Culture, as defined by anthropologists, is the sum total of all learned behavior. It is passed down from generation to generation through individuals and human groups, and it exerts a profound influence on our behavior, our attitudes, how we solve problems, how we interact with each other as social beings, the values we carry with us, and the spiritual beliefs we hold. Cultural uniqueness is manifest on many different social levels, and these different levels are often referred to as communities. A community can be broadly defined as a nation, social class, or race, or it can be more specifically defined as an organization or club, a neighborhood, a church, mosque, or temple, or a school (Williams-Green, Holmes, & Sherman, 1997). Along similar lines, Lauzon (1999) refers to communities of practice. These are characterized by consensus among a group of knowledgeable peers and a shared inventory of relevant concepts, ideas, theories, beliefs, values, and appropriate actions that are utilized in order to solve problems in the community's sphere of influence and to maintain social cohesion.

Membership in culturally defined communities is often associated with a delineated range of learning styles and cognitive processes. In other words, culture shapes the way we make meaning of our experiences in the world. As an example, Dunn and Griggs (1995) found that members of culturally defined groups tend to share common learning styles, and that these learning styles differentiate one such group from another. Table 1 presents a comparative list of the fundamental dimensions of Western versus non-Western cultural views. These are broad generalizations and encompass a tremendous amount of community and individual diversity (Sanchez & Gunawardena, 1998). It should be noted, however, that Dunn and Griggs caution against using this principle to stereotype learners by group membership. Dunn and Griggs propose that within each cultural group, individuals display unique learning style preferences that differentiate them from other members of the group.

We propose that the way in which members of Western cultures make meaning of their experience in the world is shaped in large part by an analytic, mechanistic world view in which decision-making is based on matters of expediency, efficiency, and cost-benefit considerations. To date, this ideology dominates Western curricula, and has been given new vigor through the economic hegemony of advanced capitalism. In contrast, members of non-Western cultures tend to be more holistic in the way they make meaning of their experience in the world. Accordingly, decision-making is more likely to take into consideration the interdependence of living things and the environment. Both natural and human elements—as well as their interrelationships—are incorporated in the construction of meaning and purpose (Chen, Mashhadi, Ang, & Harkrider, 1999).

One dimension of culturally-based learning style differences that has received a great deal of attention in educational research is that which has been conceived of by Hofstede (1997) as individualism versus collectivism, more specifically the extent to which individual or group needs and interests are dominant. This concept is similar to the concept of field-dependent versus field-independent cultures (Witkin, Moore, Goodenough, & Cox, 1977). Witkin et al. define the tendency to rely primarily on internal referents as being field-independent, and the tendency to rely consistently upon external referents as being field-dependent. He categorized Western cultures as primarily field-independent and non-Western cultures as field-dependent.

Triandis (1995) expanded Hofstede's (1997) concept to identify three chief attributes upon which individualists and collectivists differ: (a) conception of self, whereby individualists define self as an autonomist entity independent of the group psyche, and collectivists define self in terms of group connectedness; (b) goal relationships, whereby personal goals take priority for individualists, as opposed to collectivists who subordinate personal goals to group goals; and (c) relative importance of attitudes and norms, wherein social behavior for individualists is more likely to be driven by their own beliefs, values, and attitudes, while those of collectivists are more likely steered by social norms, responsibilities, and obligations. Whereas Hofstede perceived the traits of individualism and collectivism as dichotomously related, Triandis (1995) presented them as a multifaceted cultural construct which manifests itself across a continuum, both among groups and individuals within groups. Table 2 presents a general cognitive style comparison between the traits of field-dependency and field-independency.

The relationships among learning styles and culture are not necessarily related to geographical separation of communities. For example, in the United States, African Americans live within the context of a dominant Westernized social and cultural milieu; however, African Americans are heavily influenced by cultural practices originating from specific communities in Africa, either directly or through Black-Caribbean and Latin-American traditions derived from the African diaspora. By the same token, the cultures of many Hispanic/Latino communities are deeply rooted in the traditions of the indigenous peoples of the Caribbean, Mesoamerica, and South America. Within both cultures, social institutions such as the church and family are paramount and have reinforced and reproduced cultural uniqueness. Thus, although descendants of peoples indigenous to Africa, the Americas, and Europe grow up within close physical proximity of one another, the cultural perspectives and corresponding learning styles can differ significantly. As opposed to that of their analytic, individualistic, field-independent Anglo American neighbors, Hispanic/Latino styles share much more in common with the holistic, collectivist, field-

dependent cultures of African Americans and their African mother continent (Durodoye & Hildreth, 1995).

CULTURE AND DISTANCE LEARNING

In light of the conceptual relationships between culture and learning, it becomes crucial for educators to reflect critically upon educational practices that accommodate the diverse needs of learners from different cultural backgrounds (Chen et al., 1999). For community college educators, responsiveness to cultural uniqueness must emerge in the planning, design, implementation, and assessment of learning experiences, particularly those offered at a distance through instructional technologies. In such programming endeavors, it is important for educators to recognize the inconsistency with which people of various world views may interpret the world around them. More specifically, discourses such as spoken or written words, images, activities, and body language may be assigned diverse meanings by individuals of different cultures. That is, members of any given culture may make meaning of specific discursive signs in a way that is markedly distinct when compared to members of other cultures.

In the case of distance education, technology translates certain discourses into electronic messages that are transmitted from the sender to the receiver (Holmes & LaBoone, 2002). Since technology is largely dominated by Western ideologies, the conversion of discourses into electronic messages may inappropriately take on a Western world view. In other words, when discourses are intricately nuanced with specific cultural meanings, such meanings may be “lost in translation” as they are converted to Western-dominated electronic media. As such, technology-based instruction—although it appears to be culturally neutral—may, in fact, rest upon values and assumptions of the dominant culture (Chen et al., 1999).

In addition to the semiotic problem of accurately translating discourses into electronic media, challenges for community college educators may also occur when core pedagogical values within one culture are inappropriate within another (McLoughlin, 2000). For example, as apparent in Table 1, many cultures approach learning from a heuristic, context-based perspective. However, the nature of computer-mediated distance learning often reduces knowledge to explicit discrete data, which decontextualizes content and encourages linear, analytical thinking. Western-designed, prepackaged computer courseware often isolates the learner from his or her peers. This creates advantages for those whose cultural backgrounds emphasize the desirability of individual autonomy, while presenting marked disadvantages for learners socialized in field-dependent cultures—such as those of Asia and Latin America (Bowers, 1988). Joo (1999) cautioned that the Internet itself tends to reinforce a “World Information Order,” which she defines as the flow of information from the Western, industrialized world to developing countries. This order fails to ensure mutual respect and the protection of epistemological diversity. Internet-based technologies offer an unprecedented opportunity for aboriginal languages and cultures to showcase their perspectives and accomplishments. However, Joo alleges that true social and cultural exchange is impeded by the overwhelming dominance of the English language and Western ideologies on the Internet. Joo further warns that this World Information Order is self-reinforcing; the greater the dominance of Western ideologies, the more incentives there are for people of marginalized cultures to assimilate Western epistemologies and ideological discourses. In this way, the rich cultural and

linguistic traditions of countless world cultures dissipate into an epistemological and ideological global hegemony (Joo, 1999).

Even when educators attempt to address some of the problems associated with cultural diversity and distance learning—such as encouraging collaborative work through online discussion forums—cultural problems can still ensue. The expectation to initiate discussion, to critique the ideas of others, and to question knowledge or the instructor is anathema to cultural traditions that stress social harmony and deference to authority (Joo, 1999; McLoughlin, 2000). Even within cultures essentially Western-aligned or heavily influenced by Western philosophy, significant regional differences have been found in student attitudes and levels of comfort with technology-based instruction. Van den Branden and Lambert (1999) found that students of Northern and Western European countries show significant preferences for studying with computers compared with their peers in Southern, Central, and Eastern European countries. Perhaps this is a reflection of the more contextual, collaborative, relationship-based nature of Mediterranean and East European societies.

Utilizing theoretical constructs based on Hofstede's (1997) and Triandis' (1995) concepts of cultural differences in individual versus collective social behavior, Anakwe, Kessler and Christensen (1999) sought to determine if variants in cultural perspective influence learners' propensity towards distance learning. In a culturally diverse sample of 424 undergraduate and graduate students in two northeastern business schools, their work revealed a significant relationship between an individual's cultural background and his or her overall attitude toward distance learning. More importantly, perhaps, this research indicated that students from more individualist-grounded cultures possessed motives and communication patterns more in accord with distance learning, whereas members of collectivist cultures tended to view any form of technologically mediated instruction as undesirable. Though this study did not involve community college learners, it still raises questions about the access, inclusion, and distance learning at community colleges serving learners from collectivist cultures.

DESIGNING CULTURALLY RESPONSIVE DISTANCE LEARNING EXPERIENCES

The design of distance learning experiences can draw from many educational philosophies, learning theories, and pedagogical methods. But, educational programs must be aligned with learner needs, interests, values, student perceptions, communication styles, and desired learning outcomes that apply within a particular cultural context (Boone, Safrit, & Jones, 2002; Joo, 1999; Lagier, 2003). Focusing on this challenge, Henderson (1993; 1996) identified three primary instructional design paradigms that relate to culture and learning. First is the inclusive paradigm, which surveys and discusses social, cultural, and historical perspectives of minority groups, but does so within the framework—and from the perspective—of the dominant culture. Second is the inverted paradigm, which attempts specifically to design a learning experience from the minority perspective, but fails to provide the learner with educationally valid experiences within the dominant culture. Third is the unidimensional paradigm, which excludes or denies cultural diversity, and assumes that educational experiences are the same for all students.

Henderson (1993; 1996) rejects these models, finding each unsatisfactory in promoting equity and inclusion among culturally diverse learners. In response, Henderson proposes a fourth model which he refers to as the multiple-cultures model of instructional design. This model embodies

both constructivist and cooperative learning principles, whereby educational programming allows for variability and flexibility. The model also encourages participants to learn through interaction with the instructor and with each other. Ideally, learning materials developed through this model will reflect multiple cultural values and perspectives, including multiple ways of learning and teaching that combine both dominant and minority cultural values.

Building on Henderson's work, McLoughlin (2000) developed a methodological framework for promoting equity and cultural sensitivity in distance learning. McLoughlin added four additional dimensions of design to Henderson's multiple-cultures model: (a) cultural maintenance, (b) ownership of learning, (c) communities of inquiry, and (d) provisions of multiple perspectives. Each dimension is discussed below.

The first dimension, cultural maintenance, can be accomplished by integrating culturally distinctive art forms, language and phraseology, social traditions, colors, and community relationships into distance-learning media. This task can be more easily facilitated through collaboration in the planning and design process among course developers and members of the target community (see also Boone et al. 2002). According to McLoughlin (2000), learning experiences should afford learners the freedom to decide on personally and culturally relevant paths toward the achievement of learning objectives. Furthermore, in order to foster a sense of ownership among participants in a learning experience, educators must include a variety of tasks and projects designed to demonstrate achievement of learning objectives as well as authentic assessment of learning outcomes based on learner-selected criteria.

With respect to ownership of learning, McLoughlin (2000) encourages educators to provide personal and group online workspaces that encourage both private reflection and cooperative support. The concept of community of inquiry springs from constructivist learning theory and embodies the following principles:

1. Learning is contextualized in action and played out in everyday situations.
2. True knowledge is acquired through active participation.
3. Learning is a process of social action and engagement rooted in distinctive ways of thinking, acting, and communicating.
4. Learning can be assisted by experts and solidified through apprenticeship.
5. Learning is an important means of participating in a social environment.

In this way, the online environment facilitates the development of social support networks among learners. Such networks can be helpful for many adult learners.

Finally, McLoughlin (2000) suggests that multiple perspectives can be integrated into a Web-based environment. This can be achieved by eschewing teacher-directed pedagogies in favor of student-centered learning activities. In this view, texts should not be prescribed by the teacher. Rather, using the constructivist approach, learners should actively identify new links to relevant, culturally appropriate websites. In this way, learners may enhance the learning experience by sharing culturally rich learning materials with their instructor and peers. Furthermore, the value of these learning materials escalates when learners justify and articulate the relevance of such

resources to the skills, knowledge, and dispositions to be addressed in the course. Multiple perspectives may also permeate the learning experience when leaders and experts in the learners' immediate communities are invited to participate in course planning, design, implementation, and evaluation (McLoughlin, 2000; see also Boone et al. 2002).

Grounding their efforts in the constructivist principles outlined by Collins (1997), Chen, et al. (1999) designed several distance-learning initiatives for a culturally eclectic group of adult learners in Singapore. These researchers stressed eight dichotomous learning goals: (a) thoughtfulness versus memorization, (b) whole tasks versus component skills tasks, (c) breadth versus depth of knowledge, (d) diverse versus uniform expertise, (e) understanding versus access, (f) cognitive versus physical fidelity, (g) authentic versus abstract problem solving, and (g) multimedia communication versus direct one-way communication. Community college educators seeking to align their practice with constructivist approaches to facilitating learning may consider these eight learning goals in planning and designing online learning experiences that include learners of diverse cultural backgrounds.

Although there may be “better” instructional designs for distance education based on cultural diversity, because of individual differences, there is no real “best” design. This axiom is even more applicable to the typical distance-education cohort, which is neither monocultural nor gender exclusive, but rather multicultural and mixed gender. It is, therefore, advisable to diversify the learning activities of an online course such that it accommodates numerous learning styles and provides a reasonable degree of flexibility and adaptability to individual needs (Sales Ciges, 2001). Similarly, Sanchez and Gunawardena (1998) recommend the following:

In general, when trying to accommodate a variety of learning styles in the instructional design, it is always best to design alternative activities to reach the same objective and give the students the option of selecting from these alternative activities those which best meet their preferred learning style. (p. 59)

Many practitioners have suggested that the flexibility which leads to individual and cultural diversity in the online learning environment can be well served by the introduction of collaborative learning (Sales Ciges, 2001; Sanchez & Gunawardena, 1998; Cifuentes & Murphy, 2000; McLoughlin, 1999; 2000). Collaborative learning is founded upon constructivist theories in human development and takes place when the human mind shapes itself by selecting preferred patterns of interaction with its physical, social, and cultural environments. All human beings develop universal cognitive abilities; but, the specific ways in which these abilities are translated into actions are a function of the social and educational environments in which other human beings share information and act as learning mediators (Sales Ciges, 2001). Sharing information and experiences in this manner can occur not only face to face, but in “virtual communities,” where learners who are distributed geographically communicate with each other and with their instructors electronically. Videoconferencing, computer conferencing, e-mail, chat, discussion boards, and the Internet enable and empower such virtual communities (Cifuentes & Murphy, 2000). From the collaborative and constructivist perspective, the teacher's capacity to produce effective patterns of interaction with and among learners is a primary concern. The staging of a learning community that engenders open exchange of ideas, information, and sentiment is the goal of encouraging such communicative interactions (Sales Ciges, 2001).

If collaborative learning is to make the most of the rich cultural diversity that is represented among community college learners, then we must ensure comprehensive, active, and committed participation. Toward this end, Sales Ciges (2001) discusses three key considerations for the planning and design of collaborative learning activities. These considerations are offered specifically to educators who seek to facilitate learning within an online environment. The first involves interpersonal exchange strategies, which employ Internet technologies to facilitate and encourage communication among groups of learners, instructors, and perhaps even content experts. The exchange may occur between individuals or groups. Among the most common tools for facilitating such an exchange are electronic mail and distribution lists in an asynchronous environment, and chat and audio/video conferences in a synchronous environment. The second consideration involves strategies for information collection and analysis. These strategies involve the search, selection, interpretation, and synthesis of quality information available through the Internet. The aim of such learning activities is to enable learners to transform information into personally meaningful knowledge. The third consideration deals with problem-solving projects that are based on research carried out by cooperative groups during activities outlined in the two previous categories. These projects focus on promoting in-depth learning about a controversial and open topic—or ill-defined problem—that incorporates concepts, issues, dispositions, and values that can be both real and culturally relevant to all participants in the learning activity (Sales Ciges, 2001).

Zepke and Leach (2002) also support constructivist-based pedagogies in the planning and design of distance learning experiences. Accordingly, they suggest three broad design principles:

First, like all teaching, distance delivery requires a strong “narrative” line. Narrative carries key concepts in an orderly fashion. It is organized and sequenced by the teacher. Secondly, learning involves active construction of knowledge and learners constructing their own learning paths to that knowledge. This may involve individuals or groups, who may abide by teacher-suggested activities, adapt them or ignore them altogether.... Thirdly, both narrative and construction depend on authentic communication among learners, with teachers or other interested people outside of the learning context. They are encouraged to conduct critical discourse about their work both within and beyond the boundaries of the course. (Zepke & Leach, 2002, p. 316)

These constructivist principals may prove invaluable to community college educators seeking to develop culturally responsive learning activities for geographically dispersed learners.

RESEARCH AND PRACTICE FOCUSED ON HISPANIC/LATINO LEARNERS

As mentioned previously, African American and Hispanic/Latino learners are often not geographically isolated from Anglo American cultures. However, they may present unique learning needs as a result of their indigenous heritage and the social institutions that preserve and perpetuate culturally based world views. It would be our preference to discuss culturally responsive pedagogies that accommodate the world views and learning needs of the rich abundance of cultural communities whose learners participate in educational programs offered by community colleges; however, space—as well as our own expertise—place limitations upon us, thereby precluding a comprehensive discussion of culturally responsive pedagogies. In the

next section, our own expertise leads us to briefly discuss research and practice that relate to the needs of Hispanic/Latino learners. Recognising its limitations, we use the term Hispanic/Latino in reference to members of any racial group whose ancestors made meaning of their experiences in the world through the Spanish language. Now, we turn to research and practice that focuses on accommodating the unique learning needs shared by many Hispanic/Latino learners.

Cifuentes and Murphy (2000) reported developing a cooperative distance-learning experience between predominantly Hispanic/Latino students in a Texas border school and culturally diverse students in a partner school hundreds of miles to the north. The students developed nine multimedia projects using videoconferencing and shared them with their peers at the partner school. In addition, during the videoconferences, students interacted in numerous ways such as discussing reading, performing skits, and debating issues. Through quantitative content analysis, Cifuentes and Murphy identified the impact of the cooperative distance-learning experience upon the multicultural understanding and the self-concept of both the students and teachers. These researchers found that the participating teachers developed empowering multicultural relationships from the experience, while their students developed multicultural understanding and positive self-concept. Examples of empowerment and positive self-concept included raised levels of academic aspirations and heightened poise during public speaking. Such learning outcomes would be prized by community college learners and their instructors.

Sanchez and Gunawardena (1998) provide guidelines for designing distance instruction and support for Hispanic/Latino learners. They note that Hispanic/Latino adult learners often demonstrate a strong preference for feedback, so the distance-learning instructor must be mindful to provide feedback frequently and thoroughly throughout the learning experience. Also, Hispanic/Latino learners often prefer activities that are collaborative rather than competitive. The opportunity to work in groups on projects that are planned, carried out, and evaluated by the group may accommodate these preferences. Hispanic/Latino adult learners also show a preference for reflectivity that is well-supported by asynchronous discussion boards. This is because these technologies allow time to think about questions and answers. Along the same lines, the authors suggest that in the two-way interactive television environment, broadcasts be broken into segments. This tactic enables learners to engage in group activities and discussion at their respective sites in between segments. This instructional strategy furthermore encourages reflection on the concepts themselves, as well as their possible applications to the local environment. Many Hispanic/Latino adult learners also prefer the concrete over the abstract. In other words, Hispanic/Latino adult learners tend to prefer a preference for tangible, specific, practical tasks over theory and broad general concepts. Such learners often enjoy active experimentation in learning. Finally, Hispanic/Latino adult learners typically prefer information processing, elaborative processing, and judgment over perception. These findings by Sanchez and Gunawardena imply that facilitators of distance-learning experiences offered through community colleges should strive to incorporate higher-order cognitive processing into learning activities. They should engage the learner in processing different types of information, synthesizing information, and making judgments based on the convergence of information with their own realities.

IMPLICATIONS AND RECOMMENDATIONS

Technology may not solve problems of equity and inclusion. In fact, it may even exacerbate such problems. As such, community college educators must make technology work for learners in particular cultural settings and must identify and ameliorate culture-based incompatibilities (McLoughlin, 2000; 1999). Research, practice, and observation have provided us with rudimentary theories addressing relationships between culture and learning. From these initial postulations, practical methodologies may be developed to ensure that technology-mediated learning experiences are less intimidating to, and more respectful of, members of marginalized cultures.

Future research may add weight and authority to these assumptions or may significantly modify them. This research will most likely follow two avenues of investigation, each bearing significance for community college educators. First, constructivist research will likely focus on how members of different cultures develop the cognitive structures associated with world view, habits of mind, and patterns of communication. Perhaps this line of research will identify and explain relationships between culture and human learning and development. Second, typological research will likely focus specifically on personality features and patterns of behavior that commonly appear in individual cultural or ethnic groups. The former line of research may offer community college educators a greater understanding of the effects of cultural forces on the human psyche. The latter may be more useful in the short term for developing learning experiences that accommodate the immediate needs of community college learners.

However much is learned from future research, progress toward achieving equity and inclusion in community college distance learning depends upon a sincere willingness on behalf of community college educators to confront the all-pervasive, pro-Western, cultural bias within distance-learning environments of late modernity. If the mission of the open-door community college—and its tacit commitment to equity and inclusion—is to move beyond rhetoric in the 21st century, community college educators must mitigate cultural, epistemological, and ideological hegemony and advocate for culturally responsive learning environments.

REFERENCES

Anakwe, U., Kessler, E., & Christensen, E. (1999). Distance learning and cultural diversity: Potential users' perspective. *The International Journal of Organizational Analysis*, 7(3), 224 – 243 [CSA] [CrossRef]

Anderson, J. (1988). Cognitive styles and multicultural populations. *Journal of Teacher Education*, 39(1), 2 – 8 [CSA] [CrossRef], [Web of Science ®]

Boone, E. J., Safrit, R. D., & Jones, J. (2002). *Developing programs in adult education: A conceptual programming model.*, 2nd ed., Prospect Heights, IL: Waveland Press.

Bowers, C. (1988). *The cultural dimension of educational computing.* New York: Teachers College Press.

Chen, A., Mashhadi, A., Ang, D., & Harkrider, N. (1999). Cultural issues in the design of technology-enhanced learning systems. *British Journal of Educational Technology*, 30(3), 217 – 230 [CROSSREF][CSA] [CrossRef], [Web of Science ®]

Cifuentes, L. & Murphy, K. (2000). Promoting multicultural understanding and positive self-concept through a distance learning community: Cultural connections. *Educational Technology Research and Development*, 48(1), 69 – 83 [CROSSREF][CSA] [CrossRef], [Web of Science ®]

Collins, A. (1997). Design issues for learning environments. In E. Vosniadou, E. De Corte, R. Glaser, & H. Mandl (Eds.), *International perspectives on the psychological foundations of technology-based learning environments*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Dunn, R. & Griggs, S. (1995). *Multiculturalism and learning style: Teaching and counseling adolescents*. Westport, CT: Praeger.

Durodoye, B. & Hildreth, B. (1995). Learning styles and the African American student. *Education*, 116(2), 241 – 247 [CSA] [CSA]

Henderson, L. (1993). Interactive multimedia computer courseware and culturally appropriate ways of learning. In C. Latchem, J. Williamson, & L. Henderson-Lancett (Eds.), *Interactive multimedia: Practice and promise* (pp. 189–203). London: Kogan Page.

Henderson, L. (1996). Instructional design of interactive multimedia: A cultural critique. *Education Technology Research and Development*, 44(4), 85 – 104 [CROSSREF][CSA] [CrossRef], [Web of Science ®]

Hofstede, G. (1997). *Cultures and organizations: Software of the mind*. New York: McGraw-Hill.

Holmes, G. & LaBoone, E. (2002). The importance of culture when creating audio-enhanced, web-based instruction. *TechTrends*, 46(2), 56 – 61 [CSA] [CrossRef]

Joo, J. (1999). Cultural issues of the internet in classrooms. *British Journal of Educational Technology*, 30(3), 245 – 250 [CROSSREF][CSA] [CrossRef], [Web of Science ®]

Lagier, J. (2003). Distance learning and the minority student: Special needs and opportunities. *The Internet and Higher Education*, 6(2), 179 – 184 [CROSSREF][CSA] [CrossRef]

Lauzon, A. (1999). Situating cognition and crossing borders: Resisting the hegemony of mediated education. *British Journal of Educational Technology*, 30(3), 261 – 276 [CROSSREF][CSA] [CrossRef], [Web of Science ®]

Levin, J. S. (2001). *Globalizing the community college*. New York: Palgrave. [CrossRef]

McLoughlin, C. (1999). Culturally responsive technology use: Developing an on-line community of learners. *British Journal of Educational Technology*, 30(3), 231 – 243 [CROSSREF][CSA] [CrossRef], [Web of Science ®]

McLoughlin, C. (2000). Cultural maintenance, ownership, and multiple perspectives: Features of web-based delivery to promote equity. *Journal of Educational Media*, 25 (3), 229 – 241 [CROSSREF][CSA] [Taylor & Francis Online]

Sales Ciges , A. (2001). Online learning: New educational environments in order to respect cultural diversity through cooperative strategies. *Intercultural Education*, 12 (2), 135 – 147 [CSA] [Taylor & Francis Online]

Sanchez, I. & Gunawardena , C. (1998). Understanding and supporting the culturally diverse distance learner. In C. Gibson (Ed.), *Distance learners in higher education: Institutional responses for quality outcomes* (pp. 47 – 64). Madison, WI: Atwood Publishing .

Triandis , H. (1995). *Individualism and collectivism*. Boulder, CO : Westview .

Van den Branden , J. & Lambert , J. (1999). Cultural and linguistic diversity: Threat or challenge for virtual instruction. In C. Feyten & J. Nutta (Eds.), *Virtual instruction: Issues and insights from an international perspective* (Chap. 8 , pp. 173 – 206). Englewood, CO: Libraries Unlimited, Inc.

Williams-Green, J., Holmes, G. , & Sherman , T. (1997). Culture as a decision variable for designing computer software. *Journal of Educational Technology Systems*, 26 (1), 3 – 18 [CSA] [CSA]

Witkin , H. , Moore , C. , Goodenough , D. , & Cox , P. (1977). Field dependent and field independent cognitive styles and their educational implications. *Review of Educational Research*, 47, 1 – 64 [CSA] [Web of Science ®]

Zepke , N. & Leach , L. (2002). Appropriate pedagogy and technology in a cross-cultural distance education context . *Teaching in Higher Education*, 7(3), 309 – 321 [CROSSREF][CSA] [Taylor & Francis Online]