Distance Education as a Facilitator of Learning

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June 15, 2008

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Whether based in traditional or virtual settings, higher education is going through a transformation, where the focus is shifting from a *teaching* environment to one of *learning* (Levine, 2003). The old model, based on a pedagogical structure, emphasized a commonly shared process where instruction was calculated by "seat time, or the amount of time each student is taught. Students study for a defined number of hours, earn credits for each hour of study, and, after earning a specified number of credits, earn a degree" (p. 21). As educational options expand and increasingly competitive institutions offer greater choice for a diversity of students both in the classroom and online, there also expands an *individualization of education*, where students instead of institutions will inscribe the educational agenda:

> Students will come from diverse backgrounds and will have a widening variety of educational needs. New technologies will enable them to receive their education at any time and any place—on campus, in the office, at home, in the car, or on vacation. Each student will be able to choose from a multitude of knowledge providers the form of instruction and courses most consistent with how he or she learns. (Levine, 2003, p. 20)

Through necessity and the forces of competition, both traditional and innovative institutions of learning are seeking ways to meet the demands of andragogically-oriented adults. This article considers various learning theories, applied to three key transforming areas in adult education in general, and distance learning in particular: the andragogical issues, the technical issues, and the cultural issues.

Andragogical Transformations

Why do adults want to learn? What is their intent? How has their educational dynamic and learning style changed? These are the questions concerning higher education administrators, instructors, policy makers, and even investors, as adult learners respond to shifting priorities and options. As intent helps mold the cognitive process, it is important to discern just what it is adult learners are looking for.

Nashashibi (2002) asked and responded to the question: why do adults take part in learning? "There are many possible answers, but a characteristic adult learners share is a high degree of self-motivation. Even when they feel pushed by circumstances or needs, it is generally the learners that have taken the decision and enrolled" (p. 10). The depth of this self-motivation may be witnessed when adults enroll in non-accredited courses, which may not contribute to degrees or specific recognition for academic or professional purposes.

> Learners can sample and select from the broad curriculum of traditional adult education before making a major commitment. In non-accredited learning they can find routes into foundation, vocational or academic courses which they might not have thought of undertaking, or then can use it to enrich their lives. … Two things are important here, the motivation and purpose of the learner—which can change—and whether the learning experience really facilitates development and progress. (Nashashibi, 2002, p. 11)

Thoms (2001) also examined the motivation of adult learners, with the interesting contrast that while adults may be motivated by learning goals, they have a performance aspiration for the knowledge, where the course and instructor are judged by the students on performance: practices must be meaningful and practical. "If the leaner sees no connection between the job/course and the activities, that person will likely lose interest and not succeed in the class" (p. 4). Among some of Thoms'

identified characteristics of adult learners: they have first hand experience, set habits and strong tastes, preoccupations outside the learning environment, established a rational framework by which they make decisions, strong feeling about the learning situation, and a strong need to apply what is learned (pp. 5-6).

Sample (2002) proposed two primary goals that motivate adult learners: p*erforming goal orientation*, and *learning goal orientation*. Individuals with a performing goal orientation may be motivated by a desire to please authority figures, and hold a belief that personal abilities are stable and unchanging, with a tendency to become frustrated and give up quickly when faced by challenging tasks (pp. 4-5). Individuals having a learning goal orientation try to develop competency by developing new skills, view their abilities as dynamic and changeable, and see mistakes and obstacles as a natural part of the learning process. Students with a performance goal orientation may have been conditioned through years in the workplace, and may have some initial discomfort when readjusting to academic life.

> Students returning to the classroom after an extended period of time as mature adults will have had years of experience 'performing' for managers and employers. These students are recognized by their 'performance' anxiety when completing challenging assignments and test taking. (Sample, 2000, p. 7).

Sample proposed that the learning goal orientation is preferable to the performing goal orientation, since a "strong learning goal orientation enables individuals to maintain their self-efficacy in the face of obstacles and setbacks" (p. 4). Sample suggested that a learning goal orientation should be fostered through a classroom culture that focuses on learning rather than performance, avoiding punitive feedback, encouraging and rewarding effort and cognitive strategies that result in

breakthroughs in learning; and selecting faculty who understand and will make efforts to appropriately challenge both groups of learning and performing oriented students (pp. 7-9).

Another circumstance endemic to adult students may be the challenges of cognitive overload, as they attempt to meld the rigors of learning with the demands of daily adult life. Matus-Grossman and Gooden (2002) identified several factors facing adult students that may affect their ability to stay in college, including stable childcare; personal support from family, peers, and college faculty and staff; and accommodating employers. Lost employment income due to the hours spent on school and studies also affected low-wage adult students' ability to afford college. Adult students who participate in institutional support such as academic and personal counseling and on-campus childcare may find the services "enormously valuable" (p. 7).

Given the competing academic and personal demands for an adult student's cognitive focus, educators should seek ways to present learning opportunities in compatible forms. Thoms (2001) detailed strategies to help accommodate adult learners through an andragogical orientation, including: put materials into bite-size chunks; use the whole-part-whole concept (which puts the specific learning within a greater context before and after the lesson); make the material relevant; provide efficacious documentation; add options and flexibility in assignments; create a climate of exploration; keep requirements in perspective to the amount of time for the course; make certain the student is equipped with enough knowledge to complete the assignment; and bend the rules if necessary and appropriate (pp. 7-8). Thoms suggested that instructors might also develop skills and characteristics that will assist in

motivating adult students, which include the ability to demonstrate expertise, empathy, enthusiasm, and clarity.

Among the developmental intentions both instructors and learners may employ is an andragogical focus on experience—the experiences that both educator and educatee bring to their respective desks. This focus on experience includes "attending to experience, interpreting experience, relying on experience, using experience as a point of reference, and creating references" (Taylor, Marienau, & Fiddler, 2000, p. 43). These experiences also allow learners to engage in *reflection* and c*onstruct meaning*, both essential aspects of effective adult learning.

Gardner proposed seven fundamental intelligences students might employ in various degrees and mixtures as part of a learning process (pages 8-9 above), including the two intelligences that are the primary focus of traditional education: linguistic and logical-mathematical intelligences. Armstrong (2000) developed means to address as well the other five intelligences through teaching practices (spatial, bodily-kinesthetic, musical, interpersonal), and additionally proposed a *naturalist intelligence* should be included in the mix.

> The teacher who lectures with rhythmic emphasis (musical), draws pictures on the board to illustrate points (spatial), makes dramatic gestures as she talks (bodily-kinesthetic), pauses to give students time to reflect (intrapersonal), asks questions that invited spirited interaction (interpersonal), and includes references to nature in her lectures (naturalist) is using MI principles within a traditional teacher-centered perspective. (Armstrong, 2000, p. 40)

In the Breadth component above, Freire proposed presenting resonant educational themes to students as problem tasks to solve, fitting within an individual's *contextual reality* (page 7). This approach to teaching has been further integrated in a

system of *problem centered* (or *problem based*) learning. Researchers have found students consistently find that the most meaningful tasks—whether in school or elsewhere—require the students to solve a particular problem (Jonassen, Howland, Moore, & Marra, 2003). "The task is meaningful because they want to solve the problem. In order to solve the problem, they must understand what the problem is about, as well as various solution options, outcomes, inferences, and so on" (p. 20). There are numerous kinds of problems an instructor may employ for engaging student learning:

> *Logical problems.* Logical problems tend to be abstract tests of logic that puzzle the learner. They are used to assess mental acuity, clarity, and logical reasoning.
>
> *Algorithmic problems.* One of the most common problem types encountered in schools is the algorithm. Most common in mathematics courses, students are taught to solve problems using a finite and rigid set of procedures with limited, predictive decisions.
>
> *Story problems.* In an attempt to situate algorithms in some kind of context, many textbook others and teachers employ story problems. This usually takes the form of embedding the values needed to solve an algorithm into a brief narrative or situation.
>
> *Rule-using problems.* Many problems have correct solutions but multiple methods and uncertain outcomes. They tend to have a clear purpose or goal that is constrained but not restricted to a specific rule-oriented procedure or method. Rule-using problems can be as simple as setting a table and as complex as completing tax return schedules.
>
> *Decision-making problems.* Decision-making problems are usually constrained to decisions with a limited number of solutions. For instance, which health plan do we select? Which depreciation schedule will optimize short-term profits?

> *Troubleshooting problems.* Troubleshooting is one of the most common forms of everyday problem solving. Maintaining complex computer equipment or debugging a computer program requires troubleshooting skills. The primary purpose of troubleshooting is to diagnose a fault in a system and replace it.
>
> *Diagnosis-solution problems.* Diagnosis-solution problems are similar to troubleshooting. … Frequently, there are multiple solutions and solution paths, so the physician must justify a particular solution. It is this ambiguity in solution paths that distinguishes diagnosis-solution problems from troubleshooting.
>
> *Tactical / strategic performance.* Tactical-strategic performance requires real-time, complex decision making where the performers apply a number of tactical activities to meet a more complex and ill-structured strategy while maintaining situational awareness. [For example, flying an airplane in battle or quarterbacking a football offense.]
>
> *Case / systems analysis problems.* Systems analysis problems require learners to understand complex, multifaceted situations. What makes these problems difficult to solve is that it is not always clear what the problem is.
>
> *Design problems.* One of the most ill-structured kinds of problems is designing something. Whether it be an electronic circuit, or a house, or any other product or system, designing requires applying a great deal of domain knowledge with a lot of strategic knowledge resulting in an original design.
>
> *Dilemmas.* Dilemmas or issue-based problems are the most ill-structured and unpredictable, often because there is no solution that will ever be acceptable to a significant portion of the people affected by the problem. [For example, the Middle East crisis.] (Jonassen, Howland, Moore, & Marra, 2003, pp. 20-24)

There is a central concern, however, in using problem activities as a learning aid. Solving a problem can be "can be incredibly motivating for students, but *helping* students getting to the point of doing it can be a struggle" (Jonassen, Howland, Moore, & Marra, 2003, p. 114). Jonassen et al. proposed a systemic perspective on working through this dilemma. Students may readily find themselves in a loop of negative outcomes—"working less at school, liking school less because they're not working, leading to even less engagement"—but they may also be assisted to position themselves in a loop of "rewards and reinforcement—getting a taste of empowerment and

ownership, leading to more engagement, which, in turn, allows further empowerment, and so on" (p. 114).

Some theorists have found that with adult students, poor academic performance may be more attributable to ineffective strategies (or poor skill) and having insufficient motivation (or poor will), rather than personal problems or other external factors (Kiewra & DuBois, 1998). Instead, a successful student may combine sufficient levels of desire, intention, focus, and effort to achieve quality learning.

> Effective students overcome personal and environmental barriers to learning by controlling their personal situation and their environment. They use effective strategies and they maintain motivation. Motivation is the result of Desire (setting goals), Intention (planning), Focus (working hard), and Sustaining effort. DIFS makes the difference. (p. 72)

Students' motivation may also be enhanced by incorporating instructional themes resonant with the students' life circumstances. As in Freire's thematic analysis referenced above (page 6), these themes may be identified through an active role of listening by the educator; a learning needs and resources assessment that serves an vital function both in principle and practice of adult learning (Vella, 2002). "When adult learners are bored or indifferent, it means their themes have been neglected in the design of the course. Motivation is magically enhanced, however, when we teach them about their own themes" (p. 6).

The introduction of student-resonant themes may also enhance an atmosphere of safety in the learning space, whether virtual or on-ground. "It means that the design of learning tasks, the atmosphere in the room, and the very design of small groups and materials convey to the adult learners that this experience will work for them. The context is safe" (Vella, 2002, p. 8). Vella emphasized the importance of safety in a

successful learning experience, empowering a student's will and eagerness to discover new knowledge. She posed the question: "What creates this feeling of safety?" Among the answers were explicit instructor expertise, lesson relevance, student participation, effective sequencing, and a nonjudgmental atmosphere.

> First, trust in the competence of the design and the teacher enables to learners to feel safe. It is important to make your experience and competence clear. … Second, trust in the feasibility and relevance of the objectives makes learners feel safe. It is important not only to review the design with the group but also to point out how the objectives have been informed by the learning needs and resources assessment. … Third, allowing small groups to find their voices enhances the power of safety. One of the first learning tasks I do in any course is to invite learners to work in small groups to name their own expectations, hopes, or fears about a learning event or norms they want to see established in the large group. … Fourth, trust in the sequence of activities builds safety. Beginning with simple, clear, and relatively easy tasks before advancing to more complex and more difficult ones can give learners a sense of safety so they can take on the harder tasks with assurance. … Fifth, realization that the environment is nonjudgmental assures safety. (Vella, 2002, pp. 8-10)

Correlating with the successful steps toward ensuring student safety, is avoiding situations where the students' safety may be endangered. The instructor should ensure that students receive affirmation, if not praise, to avoid a "fatal moment" when a student may make a comment "only to have the words hit the floor with a resounding 'plop,' without affirmation, without even recognition that she has spoken, with the teacher proceeding as if nothing had been said" (Vella, 2002, p. 10).

The ability to voice, to experiment, and to reflect is a key aspect of effective education. Taylor et al. (2000) referred to reflection as an essential aspect of adult learning. The very heart of praxis in education signifies the coupling of reflection with action (Vella, 2002). Action in learning is enhanced through a student's sense of safety,

as well as ensuring a proper allowance of time and encouragement for reflection, in a "beautiful dance of inductive and deductive forms of learning":

> As we know, inductive learning proceeds form the particular to the general, whereas deductive learning moves from a general principle to the particular situation. … Learning tasks are not practice but praxis. If inductive, they invite reflection or action on particular instances by using new content. If deductive, they consider new content and work to apply it in new situations. (Vella, 2002, p. 14)

Ultimately, educators should be seeking for their students those transcendent moments, the *aha!* experience when a new concept is realized, a fresh perspective is born, a transforming flash of insight, "when the abstract word becomes flesh! I know that moment by the quality of the silence that pervades the room, whether it is filled with a thousand, a hundred, ten adults, or just two of us" (Vella, 2002, pp. 98-99).

Higher educators themselves are facing such *aha!* moments of transformation, whether they may be aware of it or not. The demographics and dynamics of higher education are changing (Levine, 2003). College students are older and meshing their education with other demands of work, mates, family, and all the distractions that adulthood brings. "These students want higher education that is convenient, is efficient in providing service, offers quality instruction, and is low in price. These are prime candidates for stripped-down versions of college without electives and student services" (p. 17). Moreover, they are prime candidates for the benefits of distance learning, as shall be considered ahead.

Technological Transformations

While the Internet may have been born on American soil, it has quickly connected the rest of the world in a truly worldwide web, now leaping beyond the

transforming boundaries of wires and computers. Keegan (2002) has examined the evolution of new learning platforms through *dLearning* (distance learning), through *eLearning* (electronic learning), to the future promise of *mLearning* (mobile learning), or the "provision of education and training courses on wireless devices: PDAs (Personal Digital Assistants), palmtops and mobile telephones" (p. 7). E-learning, with the "award of nationally and internationally recognized university degrees, college diplomas and training certifications, to students who spend much or all of their study time in front of a computer screen" can be dated to 1995 and has rapidly spread globally (p. 168). Other forms of communication promising access to educational offerings—in particular wireless telephony—has penetrated deep in prime competitive markets for international educational institutions. Since 1990, the penetration of mobile telephones has reached more than 80 percent throughout regions of Europe and Asia, and provides an opportunity to catch up with and eclipse the American domination of computer-based learning (p. 169). Keegan proposed that mobile learning, especially involving mobile telephony, was seen as becoming a new sector of education whose future depends on solving the problems posed in presenting course materials on mobile technologies.

New communication technology provides a different medium for student interaction over traditional face-to-face settings, and though it may be less direct in physical connection, it does not necessarily need to be less personal (Jonassen, Howland, Moore, & Marra, 2003). While virtual discussions may not have the richness of face-to-face communication with such important cues as "body language, tone of voice, accents, dialects, pace, pauses, and other important cues to meaning," this may

encourage virtual educators and students to be more precise in their wording, often enhanced with the time-delayed luxury of asynchronous contemplation. Also in virtual environments, “there is no race, no gender, no age, no infirmities—only minds: people talking to people … a new freedom and level of participation (pp. 74-76).

Adult learners are especially drawn to the promise of distance learning, given their particular needs and learning styles so well suited for the flexibility and accommodations transforming technologies provide for enhanced and accessible education possibilities. Eventually the two distinct settings of education (onground and online) may form a system-wide blend embracing the best of both. As educators consider hybrid mixes of face-to-face and computer mediated learning, two themes clearly emerge as the most frequently cited strengths of blended approaches: the personal contact allowed by face-to-face classroom learning and the flexibility allowed by distance learning (Wonacott, 2002, p.1). This may be accomplished through means including a “judicious use of technology” such as web-based multimedia virtual tours, course websites storing assignments and video teaching presentations, and timely communication between the instructor and students through emails. “Perhaps the best of both worlds comes from observing the classic precept of sound instruction design that the choice of any learning method should be driven by the needs of the learner, the nature of the content, and the interactions needed for learning” (p. 2).

Though many institutions have attempted to employ technology-as-teacher, ultimately educators may find more success by employing technology as a partner in the learning process (Jonassen, Howland, Moore, & Marra, 2003). “Students do not learn from technology, they learn from thinking. Technologies can engage and support

thinking when students learn with technology" (p. 11). Jonnasen et al. posed the questions, how do students learn with technologies? How can technologies become intellectual partners with students? In answer, they proposed that technologies should be used to engage and facilitate "thinking and knowledge construction" through appropriate applications of technology (p. 12):

- As tools to support knowledge construction
- As information vehicle for exploring knowledge to support learning by constructing
- As context to support learning by doing
- As social medium to support learning by conversing
- As an intellectual partner to support learning by reflecting

Problem solving can be an effective form of student engagement and learning enhancement, with various types of problems detailed on above (pages 32-33). Technologies may be effectively applied to problem investigation and solution by helping students "seek information needed to solve the problem, model the system or domain in which the problem occurs, make decisions about how to solve those problems, and design different technology-enhanced representations of those systems" (Jonassen, Howland, Moore, & Marra, 2003, p. 25). Some specific examples:

> *Information searching.* Too many educators tacitly equate information searching with learning. They believe that if students are busily searching for information online, they will naturally make sense of what they find. … Yet, information searching is essential to meaning making and problem solving. In order to learn from information being sought, students must have an intention to find information with will help them to solve a problem.
>
> *Modeling tasks or content.* We do know that in order to really understand something, people construct a mental model of that thing. Mental models are mental representations that include different kinds of knowledge about a domain or phenomenon, such as visual-spatial, structural, and even metaphorical. … Constructing mental models of a phenomenon or domain can be facilitated by building technology-enhanced models of the same … [with] several classes of tools for modeling one's knowledge, including databases, semantic networking,

> spreadsheets, expert systems, system modeling tools, hypermedia, visualization tools, and microworlds.
>
> *Decision making.* Decision-making problems typically involve selecting a single option from a set of alternatives based on a set of criteria. Decision makers must choose from a set of alternatives, each of which has one or more consequences. … Technologies can be used to model decision situations. Those models can be used to test predictions about the outcomes of different choices. Technologies can also be used in gathering and representing different perspectives about the decision.
>
> *Designing.* Whether students are creating a video or designing a Web page or multimedia program, they are necessarily engaged in design. … Although design problems are the most ill-structured and often the most complex kinds of problems, they are also the most engaging. When students are designing and producing their multimedia and Web pages, for instance, they have ownership of the process and product as well as the ideas contained therein. Ownership is the key to constructivism. Ownership usually entails commitment, pride, and satisfaction. Those are desirable outcomes form any learning experience. (Jonassen, Howland, Moore, & Marra, 2003, pp. 26-29)

As demonstrated through practice, not all forms of technology may deliver the degree of student engagement and success predicted and hoped. Some educators had held televised learning up as an example of a potential technological transformation in learning, only to discover that students were not effectively engaged in the experience. “The reason television has failed to enlighten students is that viewing prerecorded television programming does not sufficiently engage learners in active, constructive, intentional, authentic and cooperative learning” (Jonassen, Howland, Moore, & Marra, 2003, p. 124).

In addition, cognitive differences between adult age groups may make some forms and formats of virtual education more successful than others with various demographics. Lawton (2001) compared two methods of computer instruction for older adults (over the age of 55): the first, Elder Computer Instruction, was designed and

developed taking into consideration identified cognitive and physical changes that occur within the aging process, with a particular emphasis on learning aids and placing the instruction within a practical context, along with a focus on andragogical learning principles as described by Knowles. The second method, Traditional Computer Instruction, consisted of generic computer instruction commonly used with adults of all ages. Lawton surmised that the when the elder adults "receive computer instruction that is designed uniquely for their needs, they appear to develop more positive attitudes toward computers" (p. 7).

For those doubting the immediate and long-term impact of technology on education, Kurzweil (1999) provided a fascinating glimpse into the rapidly transforming realms of learning enhanced and ultimately usurped through technology. Passages specific to evolutionary and revolutionary educational technology through projected decades are here excerpted:

> 2019: Hand-held displays are extremely thin, a very high resolution, and weigh only ounces. People read documents either on the hand-held displays or, more commonly, from text that is projected into the ever present virtual environment using the ubiquitous direct-eye displays. Paper books and documents are rarely used or accessed. Most twentieth-century paper documents of interest have been scanned and are available through the wireless network. Most learning is accomplished using intelligent software-based simulated teachers. To the extent that teaching is done by human teachers, the human teachers are often not in the local vicinity of the student. The teachers are viewed more as mentors and counselors than as sources of learning and knowledge. Students continue to gather together to exchange ideas and to socialize, although even this gathering is often physically and geographically remote. All students use computation. Computation in general is everywhere, so a student's not having a computer is rarely an issue. Most adult human workers spend the majority of their time acquiring new skills and knowledge. (p. 204)
>
> 2029: Human learning is primarily accomplished using virtual teachers and is enhanced by the widely available neural implants. The implants improve memory and perception, but it is not yet possible to download knowledge

> directly. Although enhanced through virtual experiences, intelligent interactive instruction, and neural implants, learning still requires time-consuming human experience and study. This activity comprises the primary focus of the human species. Automated agents are learning on their own without human spoon-feeding of information and knowledge. Computers have read all available human and machine-generated literature and multimedia materials, which includes written, auditory, visual, and virtual experience works. Significant new knowledge is created by machines with little or no human intervention. Unlike humans, machines easily share knowledge structures with one another. (p. 221)

> 2099: Machine-based intelligences derived entirely from these extended models of human intelligence claim to be human, although their brains are not basted on carbon-based cellular processes, but rather electronic and photonic 'equivalents.' Most of these intelligences are not tied to a specific computational-processing unit (that is, piece of hardware). The number of software-based humans vastly exceeds those still using native neuron-cell-based computation. A software-based intelligence is able to manifest bodies at will: one or more virtual bodies at different levels of virtual real8ity and nanoengineered physical bodies using instantly reconfigurable nanobot swarms. Even among those human intelligences till using carbon-based neurons, there is ubiquitous use of neural implant technology, which provides enormous augmentation of human perceptual and cognitive abilities. Humans who do not utilize such implants are unable to meaningfully participate in dialogues with those who do. (p. 234)

Levine (2003) predicted the profound influence of new technologies on higher education, not only altering us as individuals and institutions, but as a global community. These transforming technologies are "the largest megaphone in postsecondary history allowing colleges and universities to reach larger numbers than ever before in history, at any time and any place" (pp. 17-18). The unprecedented interaction among peoples in this expanding educational setting provides a unique opportunity as well as a demand to seek better bridges over cultural chasms.

Cultural Transformations

The transforming capabilities of technology are empowering the rise of global universities, which are able to transcend national borders and draw together a wide range of student diversity in a virtual classroom setting (Levine, 2003). “The most successful institutions will be those that can respond the quickest and offer a high-quality education to an international student body” (p. 19). This dynamic could be further enhanced by a “dramatic expansion in international student numbers as English becomes the world language and U.S. higher education remains the global postsecondary leader” (p. 17).

Educators succeeding within this environment of globally dispersed students will need adept adaptability to diverse demographics and learning styles, as well as profound cultural differences. This becomes especially problematic since the new technologies allow instructors to be ever more removed from the geographical and cultural settings of their students. Bruffee (2002) proposed that at the core of bridging cultural differences, resides the ability of “teaching the craft of mutual dependence and civil compatibility among diverse cultural communities,” and requires people becoming more aware that “many of the cultural assumptions and practices of their peers … are deeply similar to their own and serve similar social, political, emotional, and spiritual ends” (p. 13).

As the participation of diverse cultures may be especially pronounced within global distance learning programs, the program developers and educators should be especially sensitive to the range of cultural diversity within a class (Conceico, 2002). Adding a benefit to this expanded cultural awareness, international marketing for a

program may be enhanced since "accommodating more ethnic minority members as learners might well prepare us for using the Internet to reach an even more diverse learner population successfully" (p. 44). Conceicao concluded that socially and culturally relevant adult education in cyberspace should include "self-awareness and knowledge of the learner's background, interests, and level of experience" (p. 44). Course designers, faculty and staff providing learner support will be empowered through awareness of different cultural learning styles, and through that achieve an improved understanding of how the educational context can better accommodate the learner and the learning experience.

One of the foremost authorities in identifying cultural differences is Dutch researcher Geert Hofstede, who has investigated various dimensions of culture and offers insight into how some of those dimensions may interact in various settings. In his original study, Hofstede (1980) classified dimensions of work-related value differences in 40 subject countries. The classifications may well be applied to cultural dimensions of the students found within a *global university*:

- Power distance (or the extent to which individuals at lower levels accept their lack of autonomy and authority);
- Individualism (or the relative importance of self and immediate family versus the collective workplace);
- Masculinity (or the extent to which traditionally "male" goals of wealth and recognition are acknowledged); and
- Uncertainty avoidance (or the extent to which risk and ambiguity are acceptable business conditions).

Hofstede (1997) later added the fifth dimension of *long-term orientation* (fostering virtues oriented towards future rewards, e.g., thrift). This dimension interjected a growing understanding of Asian culture, specifically Confucian influence.

Follow-up studies since (e.g., Fernandez, D., Carlson, D., Stepina, L., & Nicholson, J., 1997) have validated Hofstede's findings, with minor modifications in rankings on cultural dimension scales as new measurement tools and analyses have been applied. (See Appendix 1 for a chart of various country assessments under Hofstede's classification system.)

The various cultural dimensions may play out in various and challenging ways when intermixed in an education setting (Calloway-Thomas, Cooper, & Blake, 1999). One of the most evident dimensions to the instructor could be the individualist/collective differences between students.

> In collectivist cultures students expect to learn how to do, speak up in class only when called upon personally to by the teacher, and see education as a way of gaining prestige within their social environment and of joining a higher status group. Formal harmony is important and neither a teacher nor any student should ever be made to lose face. On the other hand, in individualistic cultures, students expect to learn how to learn and will speak up in class in response to a general invitation by the teacher. Education is viewed as a way of improving one's economic worth and self-respect based on ability and competence. In addition, confrontation is not necessarily avoided; conflicts can be brought into the open; and face-consciousness is weak. (Calloway-Thomas, Cooper, & Blake, 1999, p. 195-196)

A key factor in how instructors might effectively interact with their students is the power distance dimension. An instructor may need to vary the interaction styles between various students in a course, depending on the student's cultural foundation.

> In small power distance societies, the educational process is student centered. The students initiate communication, outline their own paths to learning, and can contradict the teacher. In large power distance societies, the educational process is teacher centered. The teacher initiates all communication, outlines the paths of learning students should follow, and is never publicly criticized or contradicted. In large power distance societies, the emphasis is on the personal 'wisdom' of the teacher, while in small power distance societies the emphasis is on impersonal 'truth' that can be obtained by any competent person. In Asian societies, the teacher is given much respect. There is a large power distance between teacher

> and student. A Chinese student would never consider arguing with a teacher. The role of the Asian student is to accept and respect the wisdom of the teacher. … In the United States, where the power difference is small, students are encouraged to challenge the teacher and one another. The teacher encourages students to discuss and debate issues, learn how to solve problems, and create their own answers to the questions posed. Americans prefer to learn through personal discovery and problem solving rather than through memorizing facts presented to them by an authority figure. (Calloway-Thomas, Cooper, & Blake, 1999, p. 196)

Educators may also need to adjust their style of interaction with students from high uncertainty avoidance cultures. This may be especially critical in the way instructors present new information, phrase discussion questions, or assign tasks.

> In a weak uncertainty avoidance society, students feel comfortable in structured learning situation (vague objectives, no timetables, broad assignments) and are rewarded for innovative approaches to problem solving. Teachers are allowed to say, "I don't know," interpret intellectual disagreement as stimulating, and seek parents' ideas. In strong uncertainty societies, students feel comfortable in structured learning situations (precise objectives, strict timetable, detailed assignments) and are rewarded for accuracy in problem solving. Teachers are expected to have all the answers, interpret intellectual disagreement as personal disloyalty and consider themselves experts who do not need parents' ideas (and parents agree). In a strong uncertainty avoidance culture, students prefer clear instructions, avoid conflict, and dislike competition. (Calloway-Thomas, Cooper, & Blake, 1999, p. 197)

Finally, instructors should give consideration to the feminine or masculine aspects of a student's culture. This may influence the grading structure or other forms of feedback students will seek and accept in relation to their course performance.

> In feminine societies, teachers avoid openly praising students because academic achievement is less important than successful interpersonal relationships, and cooperation among students is fostered. Teachers use average students as the 'norm.' In feminine societies a student's failure in school is a relatively minor event. The system rewards students' social adaptations. In masculine societies, teachers openly praise good students because academic achievement is highly regarded and competition is fostered. Teachers use the best students as the 'norm.' Academic failure is a severe blow to the self-image. The system rewards academic performance. (1999, Calloway-Thomas, Cooper, & Blake, p. 198)

Along with searching out ways to bridge cultural differences, educators may also seek ways to transcend those differences, where shared commonalities between students may help render cultural differences as a secondary concern, as Freire sought to find themes that resonant within a cultural niche. Bruffee suggested three principles that might help achieve a more culturally harmonious end: 1) Recognize that "most cultural communities are nearly identical in many of the most rudimentary elements of social structure, needs, and desires." 2) Further recognize that "culturally diverse communities nested together in heterogeneous societies do share solid common ground." And 3) Find that "taking the common ground requires learning the intricacies and tact of re-negotiating membership on one's own cultures and of finding new occasions to negotiate across the boundaries that divide cultural communities" (pp. 14-15).

Along with resonant themes, there are certain universal characteristics that educators and students may develop to assist in assuaging cultural differences. Jongewaard (2001) identified six citizenship characteristics of *transcultural universalism*: cross-cultural adaptability, geographical global awareness, contextual global awareness, empathetic activism, shared values, and trans-cultural awareness. "Effective global citizens will have a working knowledge of these categories … Further, teachers trained in these areas will have the knowledge and skills to teach their own students about the universals that unite us all, despite our many differences" (p. 6). A drive toward such transcultural competence might be approached in three developmental stages: an intracultural "*I* stage," or "cultural understanding in personal and micro-cultural-terms"; an intercultural "*we* stage," or "cultural comparisons in local

and macrocultural terms"; and a transcultural "everybody stage" where "notions of cultural relativism and interdependence develop, along with membership in the human family and world citizenship (p. 6).

Well-intentioned educators should beware a difference, however, between achieving a transcultural environment, as opposed to imposing a particular worldview on the international classmates. Freire (1993) warned against a form of cultural invasion, where misguided educators may "penetrate the cultural context of another group, in disrespect of the latter's potentialities; they impose their own view of the world upon those they invade and inhibit the creativity of the invaded by curbing their expression" (p. 152).

There a number of ways instructors of international students may develop appropriate skills to employ appropriate transcultural contexts for learning. As one such example, Klapan (2001) observed that the educational needs and abilities of all adults might be regarded as both human and societal, motivating and encouraging individual development in accordance with the greater social and even global needs. Further, Calloway-Thomas et al. (1999, p. 246) proposed ten fundamental rules for achieving intercultural effectiveness:

1. Give people the benefit of the perceptual doubt.
2. Minimize confrontations.
3. Ask for clarification.
4. Use "I" instead of "you" to deflect blame.
5. Try to look at people as individuals rather than as members of ethnic groups.
6. Seek common ground.
7. Be flexible in selecting words and actions.
8. Learn how to distinguish between "because" and "in spite of" reactions.
9. Recognize the fact that people communicate differently.
10. Develop empathy.

Researchers have determined that American institutions—among the primary providers of distance learning—may do more to address the particular needs of international students (e.g., Pineiro, 2001; Udoh, 2000; Macia, 1999). Pineiro (2001) proposed that "international students' academic needs as learners may have been overlooked by American universities. This has become cause for dissatisfaction and has impacted the academic experience of many international students" (p. 3). International students may achieve more learning success through an enhanced experience of engagement and connectedness. "Positive participation was described as experiences where learners and teachers were actively engaged as co-learners and co-decision makers in the teaching-learning process … the readings and the discussions in the classroom were relevant to the needs and interests of the learners and took into consideration the learners' previous knowledge and professional experience" (p. 6).

Udoh (2000) recommended that the universities should provide more opportunities for cross-cultural interactions between international students. Macia (1999) concluded that secondary and higher educators, administrators, and curriculum specialists should dedicate more research to the specific needs of students from different cultures to ensure a better learning experience in transcultural settings. Further means that educators may employ for improving learning effectiveness in multicultural settings are considered in the article, *Application of Transcultural Themes in International Classrooms* (Van Hook, 2007).

Appendix 1:

Cultural Dimension Indexes from Hofstede (1997)

This chart measures the respective cultural dimensions on a scale of 0-100 (the higher the score, the stronger the cultural dimension is extant), and ranks 50 countries and three geographical regions in their relative position to one another.

PDI: Power distance index

IDV: Individualism index

MAS: Masculinity index

UAI: Uncertainty avoidance index

LTO: Long-term orientation index

	PDI		IDV		MAS		UAI		LTO	
	rank	score	rank	score	rank	score	rank	score	rank	score
Arab Countries	7	80	26/27	38	23	53	27	68		
Argentina	35/36	49	22/23	46	20/21	56	10/15	86		
Australia	41	36	2	90	16	61	37	51	15	31
Austria	53	11	18	55	2	79	24/25	70		
Bangladesh									11	40
Belgium	20	65	8	75	22	54	5/6	94		
Brazil	14	69	26/27	38	27	49	21/22	76	6	65
Canada	39	39	4/5	80	24	52	41/42	48	20	23
Chile	24/25	63	38	23	46	28	10/15	86		
China									1	118
Columbia	17	67	49	13	11/12	64	20	80		

	PDI		IDV		MAS		UAI		LTO	
	rank	score	rank	score	rank	score	rank	score	rank	score
Costa Rica	42/44	35	46	15	48/49	21	10/15	86		
Denmark	51	18	9	74	50	16	51	23		
East Africa	21/23	64	33/35	27	39	41	36	52		
Ecuador	8/9	78	52	8	13/14	63	28	67		
Finland	46	33	17	63	47	26	31/32	59		
France	15/16	68	10/11	71	35/36	43	10/15	86		
Germany FR	42/44	35	15	67	9/10	66	29	65	14	31
Great Britain	42/44	35	3	89	9/10	66	47/48	35	18	25
Greece	27/28	60	30	35	18/19	57	1	112		
Guatemala	2/3	95	53	6	43	37	3	101		
Hong Kong	15/16	68	37	25	18/19	57	49/50	29	2	96
India	10/11	77	21	48	20/21	56	45	40	7	61
Indonesia	8/9	78	47/48	14	30/31	46	41/42	48		
Iran	29/30	58	24	41	35/36	43	31/32	59		
Ireland (Rep of)	49	28	12	70	7/8	68	47/48	35		
Israel	52	13	19	54	29	47	19	81		
Italy	34	50	7	76	4/5	70	23	75		
Jamaica	37	45	25	39	7/8	68	52	13		
Japan	33	54	22/23	46	1	95	7	92	4	80
Malaysia	1	104	36	26	25/26	50	46	36		
Mexico	5/6	81	32	30	6	69	18	82		
Netherlands	40	38	4/5	80	51	14	35	53	10	44
New Zealand	50	22	6	79	17	58	39/40	49	16	30
Nigeria									22	16
Norway	47/48	31	13	69	52	8	38	50		
Pakistan	32	55	47/48	14	25/26	50	24/25	70	23	0
Panama	2/3	95	51	11	34	44	10/15	86		
Peru	21/23	64	45	16	37/38	42	9	87		

	PDI		IDV		MAS		UAI		LTO	
	rank	score	rank	score	rank	score	rank	score	rank	score
Philippines	4	94	31	32	11/12	64	44	44	21	19
Poland									13	32
Portugal	24/25	63	33/35	27	45	31	2	104		
Salvador	18/19	66	42	19	40	40	5/6	94		
Singapore	13	74	39/41	20	28	48	53	8	9	48
South Africa	35/36	49	16	65	13/14	63	39/40	49		
South Korea	27/28	60	43	18	41	39	16/17	85	5	75
Spain	31	57	20	51	37/38	42	10/15	86		
Sweden	47/48	31	10/11	71	53	5	49/50	29	12	33
Switzerland	45	34	14	68	4/5	70	33	58		
Taiwan	29/30	58	44	17	32/33	45	26	69	3	87
Thailand	21/23	64	39/41	20	44	34	30	64	8	56
Turkey	18/19	66	28	37	32/3	45	16/17	85		
Uruguay	26	61	29	36	42	38	4	100		
USA	38	40	1	91	15	62	43	46	17	29
Venezuela	5/6	81	50	12	3	73	21/22	76		
West Africa	10/11	77	39/41	20	30/31	46	34	54		
Yugoslavia	12	76	33/35	27	48/49	21	8	88		
Zimbabwe									19	25

References

Armstrong, T. (2000). *Multiple intelligences in the classroom*. Alexandria, VA: Association for Supervision and Curriculum Development.

Bruffee, K. (2002, January-February). Taking the common ground: Beyond cultural identity. *Change*. 34 (1), 10-17.

Calloway-Thomas, C., Cooper, P., & Blake, C. (1999). *Intercultural communication: Roots and routes.* Needham Heights MA: Allyn & Bacon.

Conceicao, S. (2002, Winter). The sociocultural implications of learning and teaching in cyberspace. *New directions for adult & continuing education,* 96, 37-46.

Fernandez, D., Carlson, D., Stepina, L., & Nicholson, J. (1997, February 1). Hofstede's country classification 25 years later. *The Journal of Social Psychology*.

Freire, P. (1993). *Pedagogy of the oppressed.* New York: Continuum.

Hofstede, G. (1997). *Cultures and organizations: Software of the mind: Intercultural cooperation and its importance for survival.* New York: McGraw-Hill.

Hofstede, G. (1980). *Culture's consequences: International differences in work-related values.* Newbury Park CA: SAGE Publications.

Jonassen, D., Howland, J., Moore, J., & Marra, R. (2003). *Learning to solve problems with technology: A constructivist perspective.* Upper Saddle River, NJ: Merril.

Jongewaard, S. (2001, April). *Beyond multiculturalism: Towards a unification theory for the improvement of cross-cultural communication.* Paper presented at the annual meeting of the National Council for Social Studies Great Lakes Regional Conference, Bloomington, MN. (ERIC Document Reproduction Service No. ED453119)

Keegan, D. (2002). *The future of learning: From elearning to mlearning.* (ERIC Document Reproduction Service No. ED472435)

Kiewra, K. & DuBois, N. (1998). *Learning to learn: Making the transition from student to life-long learner*. Boston: Allyn and Bacon.

Klapan, A. (2001, May). *Educational needs of the adults - the key question of andragogy.* Paper presented at the International Andragogical School in Bosnia and Herzegovina, Sarajevo, Bosnia. (ERIC Document Reproduction Service No. ED472062)

Kurzweil, R. (1999). *The age of spiritual machines: When computers exceed human intelligence.* New York: Viking.

Lawton, D. F. (2001, November). Older adults eager to explore cyberspace. *Proceedings of the National Convention of the Association for Educational Communications and Technology, Atlanta, GA, 1-2.* (ERIC Document Reproduction Service No. ED470093)

Macia, J. J. (1999). *Transcultural experiences: A literature bridge to English for ESOL students from Cuba.* Unpublished doctoral dissertation, Florida International University. (ERIC Document Reproduction Service No. ED446445)

Matus-Grossman, L., & Gooden, S. (2002). *Opening doors: Students' perspectives on juggling work, family, and college*. (ERIC Document Reproduction Service No. ED471815)

Nashashibi, P. (2002). *Learning in progress: Recognizing achievement in adult learning.* (ERIC Document Reproduction Service No. ED470805)

Pinheiro, S. O. (2001). *Perceptions versus preferences: Adult international students' teaching-learning experiences in an American university*. (ERIC Document Reproduction Service No. ED452785)

Pittinksy, M. (2003). *The wired tower: Perspectives on the impact of the internet on higher education*. Upper Saddle River, NJ: Prentice Hall.

Sample, J. (2002, June). *Learning vs. performance: Implications for the adult learner.* Paper presented at the National Adult Learning Conference, Orlando, FL. (ERIC Document Reproduction Service No. ED470915)

Taylor, K., Marienau, C., & Fiddler, M. (2000). *Developing adult learners: strategies for teachers and trainers.* San Francisco: Jossey- Bass.

Thoms, K. J. (2001, April). They're not just big kids: Motivating adult learners. *Proceedings of the Annual Mid-South Instructional Technology Conference, Murfreesboro, TN*. (ERIC Document Reproduction Service No. ED463720)

Udoh, B. O. (2000). *Cultural adjustment of foreign students in an institution of higher education.* Unpublished doctoral dissertation, Louisiana State University. (ERIC Document Reproduction Service No. ED464560)

Vella, J. (2002). *Learning to listen, learning to teach: The power of dialogue in educating adults.* San Francisco: Jossey-Bass.

Van Hook, S.R. (2007). *Application of transcultural themes in international classrooms.* (ERIC Document Reproduction Service No. ED495063)

Wonacott, M. E. (2002). *Blending face-to-face and distance learning methods in adult and career-technical education. Practice application brief No. 23.* (ERIC Document Reproduction Service No. ED470783)