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Please note: This is the original English version of the article translated into Chinese for 12th issue of Distance Education.

Frechette, C., Gunawardena, C. N., & Layne, L. (2016). How to design culturally inclusive online learning experiences (Yiwei Peng trans.). Journal of Distance Education in China, 12, 5-14. DOI 10.13541/j.cnki.chinade.20161216.001

How to Design Culturally Inclusive Online Learning Experiences

Abstract

In this paper, we argue that adapting online courses for specific cultural groups takes time-intensive guesswork. Instead, instructional designers should employ the principles of universal design and social constructivism to build a course culture inclusive of all learners. Culture affects learners' experiences in important, interconnected ways. Yet, it is equally difficult to predict culture's effects on learning (Guild & Garger, 2016). These difficulties stems from the inherent complexity in human behavior. First, individuals may not reflect their cohort, especially when they belong to groups with conflicting values. Second, beliefs can influence one another in unforeseeable ways, and cultural values can be situational. Third, aligning with learners' cultural preferences may not enhance learning outcomes. Building on the work of Mitchell and Joseph (2002), we propose a different approach, one in which instructional designers embrace culture without attempting to anticipate a given cohort's unique needs. This can be done by reflecting on cultural values, designing with intention, communicating expectations, and giving control to learners. In the final portion of this article, we introduce the Wisdom Communities Instructional Design Model (WisCom) and describe why it is particularly well-suited for designing courses that account for the cultural experiences of all learners. WisCom emphasizes the formation of a dynamic learning community based on social-constructivist principles. In a WisCom-based online course, the community is at the heart of the learning experience. This emphasis on the group dynamics underscores the importance of culture by providing venues to explore preexisting values and negotiate new ones as a learning group.

Casey Frechette, Charlotte N. Gunawardena, Ludmila Layne

Introduction

At its best, online learning creates new educational opportunities. Women in Saudi Arabia enroll in courses to which they might not otherwise have access (Hamdan, 2014; Szilagyi, 2015). Refugees in Dzaleka, a camp in central Malawi, learn skills that translate into jobs (IRIN, 2012). Students from around the world learn side-by-side about business, chemistry, technology, and dozens of other topics (Hogan, 2011, Liu & Magjuka, 2011; Strong, et al., 2011).

Digital technologies promise to bring us together and create new cross-cultural learning experiences. The reality, however, is more one-sided. In most cases, online students take courses designed in the West, mainly the U.S. Demand drives this enrollment. Across the world, 70% of the top 50 universities are in the U.S., according to the latest ranking by U.S. News & World Report (2016). The next highest-ranking country, the United Kingdom, claims 8% of the top 50 spots. Many students aspire for access to a U.S. education. American teaching methods, research productivity, technological innovations, and preeminent universities attract learners from around the globe.

While technology has enabled access, it has also introduced challenges. As students become more diverse, teaching materials and methods often are not adapted accordingly. The design and delivery of instruction often fails to account for differences in how students think, communicate, and learn (Bielaczyc & Collins, 1999; Chen, Hsu, & Caropreso, 2006; Swierczek & Bechter, 2010). Online, the need to consider students' diverse needs is particularly acute (Olaniran, 2009), but often overlooked.

Educational materials and technologies often reflect biases (Bowers, 2000). Sometimes, these hidden influences are innocuous. Other times, though, unrecognized differences in learners' values, beliefs, and backgrounds can hinder understanding and communication, leaving students feeling confused or disconnected. Failing to consider the needs of diverse groups of learners can also impede understanding of students' rich personal experiences -- insights that could be harnessed to further improve instruction for everyone.

Culture is the best lens through which to understand these differences, and a culturally-inclusive course is one in which the greatest number of learners, regardless of region, nationality, or other factor, stand to benefit and contribute. In this article, we argue that cultural inclusivity can best be achieved not by designing for a particular audience but rather by reflecting on cultural values, designing with intention, communicating expectations, and giving control to learners.

Dealing with Culture

Cultural influence

The cultures to which we belong shape our values, influence our communications, and guide our behaviors (Frechette, Layne, & Gunawardena, 2014). Through culture -- a shared understanding of what the world is and what our place in it is -- we form our identities and our roles in society.

Cultural influences are ubiquitous, and that makes them difficult to identify and parse out. Cultural factors touch on just about every aspect of the environments that shape how we think, live, and relate to one another.

Culture is a shared experience. Individuals express a culture's values and ideals, but groups give that expression power and meaning. We each belong to a gamut of cultural groups, from macro to micro. These include global, national, regional, communal, organizational, and familial cultures. We are all part of one global culture, and most (but not all) of us affiliate with a single national culture. Regional, communal, organizational, and even familial cultures tend to be more fluid, though, especially over a lifetime. Culture is both multidimensional and dynamic.

Some cultural values, especially those at the micro end of the spectrum, are transmitted directly and without mediation. When we are young, our parents, teachers, and community leaders tell us how the world works and what our place in it is. Over a lifetime, however, media play an increasingly influential role in the transmission of culture, particularly at the macro level. As society relies more and more heavily on technology, media have conveyed cultural mores at increasingly younger ages. Moreover, by removing physical and temporal barriers between cultures, media have cross-pollinated cultural ideas in ever-changing ways. Rather than creating a singular culture, however, we each have a "cultural DNA" -- a mix of beliefs and values with parts shared by others but the sum of those parts unique to ourselves.

Culture and learning

Culture influences how we think and communicate and, therefore, how we learn. The effects of culture can be seen in how learners relate to course content, peers, and instructors and in how they perceive themselves. Culture also helps shape how instructional designers, subject matter experts, and instructors relate to content, develop teaching strategies, navigate learning environments, and negotiate underpinning design models.

Since culture influences learning, it can be seen as one of many learner traits -- a variable that students bring to the learning equation that will shape their experiences in both predictable and unforeseeable ways.

Researchers have found ways to analyze how culture shapes learning. Building on the work of Hofstede (1984, 1997), Trompenaars and Hampden-Turner (1998), and Hall (1981), Edmundson (2007) identified nine dimensions in the Simplified Multiple Cultural Model (SMCM) that relate to how we learn. Each of these cultural dimensions of learning involves a complex array of values and beliefs. The first dimension concerns the philosophy of learning and teaching that undergirds a course -- what Edmundson termed the *pedagogical paradigm*. Each of the remaining eight dimensions deals with an orientation to learning that exists on a continuum between two opposing values:

1. **Cooperative Learning.** Whether learning happens independently or collaboratively.
2. **Origin of Motivation.** From where the motivation to learn originates -- within the learner or external to the learner.

3. **Learner Control.** Whether learners follow an inflexible, predetermined path or make choices that shape their experiences.
4. **Teacher Role.** The role learners expect their teachers to play -- expert or facilitator.
5. **Value of Errors.** Whether learners see errors as things to avoid or things to embrace.
6. **User Activity.** Whether user activity revolves mainly around accessing content or generating content.
7. **Experiential Value.** Whether learning reflects participants' experiences outside the classroom or reflects relevant theories and models.
8. **Accommodation of Individual Differences.** Whether learners can customize their experiences or receive one particular, optimized experience.

According to the SMCM, learners, designers, instructors, and others who come in contact with a course will naturally gravitate toward one end of each continuum. These predilections will interact with one another and shape the overall cultural characteristics of the course. Based on preliminary research, Edmundson (2007) categorized four factors -- motivation, learner control, teacher role, and value of errors -- as critical cultural characteristics and three factors -- user activity, experiential value, and individual differences -- as assistive characteristics.

By considering each factor and its implications on learning, designers can begin to account for culture with purpose, paving the way for culturally-sensitive course adaptations (Căpățînă, 2015).

Marinetti and Dunn (2002) found that courses require different levels of adaptation, depending on the nature of the instructional content. When a target culture is known and when the focus is mainly on national culture, Marietti and Dunn defined four levels of adaptation: translation, localization, modularization, and origination. *Translated Courses (Level 1)* have content in a target language that is different from the source language. Translation works best for well-defined content domains and simple information. *Localized Courses (Level 2)* have content that has been adapted to be relevant for a particular local, regional, or national audience. Localization works best for simple knowledge and straightforward concepts. Localization can entail changing units of measurement, removing references that may be obscure, and replacing examples with limited relevance with more suitable alternatives.

Modularized Courses (Level 3) involve more extensive customizations, but only to certain sections or modules. Modularization fits well with content geared toward soft skills, such as communication techniques, along with more complex knowledge. Whereas localization involves swapping one piece of content for another, modularization entails more foundational reworking, for example, rewriting a key passage of instructional text or redeveloping a critical exercise. Lastly, *Originated Courses (Level 4)* are redeveloped with heavy involvement of members of the target culture. Origination is most appropriate for

content focused on problem solving, conflict resolution, and other soft skills. Originating a course involves careful attention to attitudes, beliefs, and complex communication.

Level 1 and Level 2 adaptations would not entail considering the dimensions of the SMCM. Level 3 adaptations would involve dealing with some of the dimensions in a limited capacity. Learners may be given some control over when and how they receive content, the teacher's role may include both expert and facilitative aspects, and a mix of experiential and theory-based elements may be incorporated. Level 4 adaptations would involve extended consideration of most or all of the dimensions.

Complications of culture and learning

The adaptation levels outlined by Marinetti and Dunn (2002) provide helpful flexibility to instructional designers faced with the prospect of adapting a course to a new culture, but they also require knowledge of the target culture that can be surprisingly challenging to ascertain.

Although it is difficult to overestimate just how much culture can affect learners' experiences, it is equally hard to predict culture's effects on learning (Guild & Garger, 2016). Part of these difficulties stems from the inherent complexity in human behavior. First, individuals may not reflect their cohort's values, especially when they belong to groups with conflicting values. An instructional designer might, for example, make decisions based on an understanding of cultural values at the national level, but learners' preferences and expectations could be shaped at the familial levels in a deeper -- and perhaps contradictory -- fashion.

Second, beliefs can influence one another in unpredictable ways, and cultural values can be situational. Because we belong to so many cultural groups, conflicting values and beliefs are bound to arise. Reconciling these conflicts involves a complex inner negotiation, with unforeseeable outcomes.

In the context of online learning, further challenges exist. For instance, aligning with learners' cultural preferences may not enhance learning outcomes. The connection between culture and learning is more nuanced, and presenting unfamiliar paradigms might even prompt deeper understanding, provided adequate learner support is provided. Asking learners to engage with unfamiliar learning styles could help them succeed in globalized, multicultural communication scenarios (Gunawardena & LaPointe, 2008). Furthermore, learners' expectations will affect their experiences, mediating the role of culture. If learners anticipate and can prepare for an instructional technique that they find unfamiliar or uncomfortable, their experiences will be different.

Further complications arise because of the reciprocal nature of beliefs and learning: What we believe changes how we learn, and learning changes the values and norms to which we subscribe.

Perhaps most vexing, learning is, in important ways, universal. Patterns of learning shared by all people interact with individual differences. Innate traits and cultural influences meld in complex ways, influencing how we think, behave, and learn (Guild & Garger, 1998).

Accounting for Culture through Introspection, Intention and Interaction

In spirit, accounting for culture and adapting instruction in accordance is a reasonable way to create accessible, high-quality e-learning. In practice, the task is formidable. One way forward entails acknowledging and responding to cultural factors without attempting to anticipate a given cohort's unique needs. This can be done by reflecting on cultural values, designing with intention, communicating expectations, and giving control to learners.

In a book chapter about accounting for culture in instructional design (Frechette, Layne, & Gunawardena, 2014), we introduced 10 ways to design culturally inclusive online courses. These are paraphrased as follows:

1. Reflect on cultural biases and encourage learners to do the same.
2. Design for cultural inclusivity instead of neutrality.
3. Recognize and delineate the cultural factors that influence a course design.
4. Give learners choice over how they communicate, interact, process information, and otherwise experience the instruction.
5. Encourage learners to pursue less familiar learning options.
6. When possible create flexibility around course timelines.
7. Find outlets for divergent thinking. Avoid reconciling differences in student-proposed answers when possible.
8. Value learning processes as well as learning products.
9. Find ways for learners to contribute to the course design.
10. Treat culture as a multifaceted, dynamic force.

These steps align with the cultural dimension that Thomas, Mitchell and Joseph (2002) proposed adding to the traditional ADDIE instructional systems design model. The five phase ADDIE model (analysis, design, development, implementation, and evaluation) provides instructional designers with a template for creating effective learning experiences. Thomas, Mitchell, and Joseph's cultural dimension included three facets: introspection, intention, and interaction. These activities, they argued, should occur in each of the phases of ADDIE.

The principles that follow emphasize reflection on one's own values and receptiveness to other viewpoints. They prompt instructional designers to understand themselves and create pathways for learners to shape their experiences. The result is an approach to culture that values inclusivity and collaboration.

Principle One: Reflect on culture. (Introspection)

Since cultural neutrality is not achievable (Thomas & Colombus, 2010), Thomas, Mitchell and Joseph (2002) argued for a sincere, continuous examination of one's biases and beliefs: "The designer's world view cannot be divorced from his societal context; therefore, it becomes critically important that the designer becomes introspective in his approach when designing instruction," (Thomas, Mitchell, & Joseph, 2002, p. 44).

Several specific activities can advance introspection:

1. **Develop a nuanced view of culture.** While culture can include prosaic things like the meaning we ascribe to certain colors or hand gestures, it also encompasses subtle but influential ways of communicating and interpreting the world. The former manifestation of culture is relatively easy to define and account for, but its impact on learning remains ambiguous. The latter category, on the other hand, is more amorphous and difficult to deal with. It is also a more powerful and personal aspect of culture, revealing what we deem important, meaningful, right, and wrong and shaping learning in profound ways.
2. **Consider your own cultural values.** Instructional designer should reflect on what they value in general and specifically in the context of learning. A series of probing questions can unlock new insight. What do we consider valuable? Meaningful? Right and wrong? What makes someone a good teacher? An effective learner? Whatever the answers, why do we believe them? It can be difficult to obtain the distance necessary to see our own values, but several tools can help. Researchers at Harvard, for example, developed an online survey to measure implicit associations about race, gender, and other culturally-rooted concepts (Banaji & Greenwald, , 2013).
3. **Encourage ongoing self reflection among learners.** Learners also stand to gain by becoming more introspective about their cultural beliefs, and the insights they glean can become resources to others. For example, Szilagyi (2014) found that Nigerian students enrolled in international online courses view academic integrity, originality, and plagiarism in ways that differ substantively from Western ideals. These learners placed high value on copying content provided by teachers and low value on critical thinking and referencing others' work. Stark discrepancies in values caused some students to consider withdrawing from their studies.

Principle Two: Design for inclusivity, not neutrality. (Intention)

The second set of activities involves the attempt to deal with culture in the context of a specific course design head on. *Introspection* is about cultivating a general attitude toward culture, and *intention* is about applying that attitude to a particular course. With intention, culture becomes purposeful rather than incidental. However, rather than prompting designers to align with a particular set of cultural values, this principle encourages them to understand all the cultural dimensions relevant to the course content and structure.

Several activities contribute to intention:

1. **Identify how culture affects the course design, including content, structure, communication channels, feedback mechanisms, assessments, and more.** Cultural values can influence the content included in (or excluded from) a course, how that content is organized and presented, the types of interactions encouraged, and the manner and number of assessments. A short list of design decisions shaped by culture follows:
   a. Students are given opportunities to generate original content.
   b. Students complete quizzes that require them to reflect on content provided.
   c. A critical assignment must be completed working in small groups.
   d. Metaphors are used extensively to teach key concepts.
   e. Students receive detailed feedback on most of their assignments.
   f. Detailed, step-by-step procedures are provided for an exercise.
   g. Students are graded most heavily on their ability to communicate in writing.
   h. A great deal of rigour is built into the course, requiring learners to spend many hours on each assignment.
   i. Courses grades are based mainly on a high-stakes final exam.
   j. Students are expected to memorize volumes of information.
   k. Students are expected to design and produce multimedia projects.
2. **Value both the products learners create and the processes in which they engage.** Products include assignments, test results, and projects. Processes include early drafts, in-course communications, and study notes. Whereas products are often the natural option for gauging student performance and providing feedback, processes often hold equal or more clues about learners' internal thought processes.
3. **Create ample opportunities to communicate expectations to learners.** Rather than assuming learners will be familiar or comfortable with a given learning strategy, convey what they will encounter and why it has been included in the course design. The course syllabus is one venue in which to impart this information. Explanations can also be provided throughout the course to help learners understand the intention behind activities and reflect on how their values will shape their performance on the task.

Principle Three: Let learners shape their experiences. (Interaction)

The third principle focuses on interaction with and among learners. When instructional designers follow the principles of universal design, they shift control to learners, and the line between the design and the implementation of the course begins to blur. Therefore, learner involvement should occur in both the design of the course and in the instructional experiences that follow.

When interactions are informed by introspection and intention, they create pathways for relevant cultural influences to emerge by creating opportunities to discuss values and practices. Rather than predict what these factors might be, designers can focus on making

learners active participants who shape the course in meaningful ways. Through this negotiation, specialized adaptations of a course need not be prepared ahead of time: They will emerge in real time, as learners participate actively and make decisions about the final shape of the course.

Universal design has roots in architecture and software development. It is both a principle and a strategy for designing spaces and experiences, whether physical or virtual, that permit participation by the most people to the greatest extent (Barajas & Higbee, 2003). When applied to learning, universal design gives prominence to the need to make students as active as possible in the learning process. This means providing for flexibility in how learners receive instruction, submit assignments, and interact with classmates.

Designers can seek learner input in several ways:

1. **Provide multiple modes of communication.** Present course material through different channels, and allow learners to contribute in different ways. Pay particular attention to possibilities for visual communication, for example, concept mapping and brainstorming with illustration-based collaboration tools. Evaluate the merits of synchronous and asynchronous communication. Introduce variety in the quantity of input expected from learners, being careful to consider methods that encourage both short- and long-form submissions.
2. **Help learners choose their own course paths, while encouraging less familiar options.** Create signposts and recommendations on how to become active in a course. Create flexibility around timing and pace. When feasible, allow learners who have mastered self-directed learning to customize the pace of instruction and the exact timing of learning activities.
3. **Allow for divergent viewpoints.** Instead of seeking definitive answers, emphasize the value of developing multiple answers. Divergent thinking -- the ability to consider many possible ideas, solutions, or explanations -- empowers creativity, a critical 21st-century skill that is often overlooked in modern education (Robinson, 2011). According to Gallavan & Kottler (2012), divergent thinking involves "imagination, curiosity, flexibility, complexity, and intellectual risk-taking associated with brainstorming an array of feasible answers to open-ended questions or solutions to challenging problems or situations followed by sharing the new ideas with the entire group so participants teach and learn from one another," (p. 165). To encourage divergent thinking, instructional designers might develop an exercise that entails devising a new design for common tool, for example, a new type of corkscrew (Liu, Kao, & Chakrabarti, 2015), or build opportunities for learners to identify the problems they want to investigate (Pappas, 2015).

The Wisdom Communities Instructional Design Model

The steps outlined above can be used in a variety of instructional design models. A model focused on culture and community, however, can enhance their effectiveness.

The present authors' analysis of existing design models (Frechette, Layne, & Gunawardena, 2014) revealed four levels. *Level 1* models do not address cultural factors, but they implicitly cater to the cultural values of their creators. *Level 2* models are intended for one specific culture, possibly one different from the creators'. *Level 3* models can be used to design courses for different cultural profiles, but they do not account for mixed cultural perspectives in a single course. *Level 4* models foster learning experiences across cultures.

The differences between these levels reflect the same factors identified by Thomas, Mitchell, and Joseph (2002): intention, interaction, and introspection. Models that incorporate these elements to greater degrees rise to the higher levels.

The authors of this article developed the Wisdom Communities Instructional Design Model (WisCom) to help instructional designers create collaborative online learning experiences (Gunawardena et al., 2006). WisCom (pictured in Figure 2) emphasizes the formation of a dynamic learning community based on social-constructivist principles. In a WisCom-based online course, the community is at the heart of the learning experience. This emphasis on the group dynamics underscores the importance of culture by providing venues to explore preexisting values and negotiate new ones as a learning group.

Because WisCom emphasizes certain learning values, for example, social-constructivist learning, collaborative learning, and internal learner motivation, it provides instructional designers with a template for shaping interactions between learners and their peers, teachers, and the course content. Meanwhile, learners will bring their own culturally-rooted preferences to their community interactions, some of which may be at odds with the course design.

Negotiating these discrepancies is an expected part of community formation. The process takes effort and determination, and the result should reflect change on all sides: Learners should begin to take on new beliefs and perspectives consistent with the community dynamics, and the community itself should morph to reflect how its individual members think and communicate.

Cohesion is a long-term goal for a wisdom community. The path to this outcome can take many forms, and a sense of community often takes time to form. Along the way, subgroups may emerge, and the instructor must work to cultivate a shared sense of community among all members. Every person in a wisdom community should feel a sense of belonging and an affinity to a core set of shared norms and values, even while retaining individual differences. Among these differences are the unique competencies that members contribute to the group dynamics to solve problems defined by the community.

Problem-solving in a wisdom community occurs when the group uncovers existing information and generates new knowledge through a cycle of inquiry (Bransford, Brown, & Cocking, 2000; Alavi & Leidner, 2005). This multi-step process (pictured in Figure 1) entails mainly collaborative work focused on six activities:

1. **Receive** a problem, case study, or question. This initial prompt provides focus and purpose. The solutions are often unknown or incomplete.
2. **Explore** the problem and offer individual interpretations. Learners consider what they know and do not know about the problem. They share personal experiences that will shape the group's work. This step also provides a chance to clarify the nature and scope of the problem.
3. **Seek resources** to compare, challenge, and negotiate competing perspectives. Working alone, in subgroups, and with mentors, learners embark on research to expand their understandings and address issues and concerns that emerge in step two.
4. **Reflect** on how exploring the topic has restructured thinking, both individually and collectively..
5. **Negotiate** as a group the results of steps three and four to produce integrated solutions to the identified problems.
6. **Preserve** new insights created so that others might benefit from the group's discoveries. Preservation documents can include summary statements, database entries, pictorial artifacts, audio or video recordings, and more.

Figure 1. This sample module shows the cycle of inquiry in action.

Completing the cycle once might set the stage for additional explorations. Insights gleaned at the end of the process can be used to posit new questions and problems, and the process can begin again.

Mentoring and learner support are also important components in the WisCom model and key sources of scaffolding in the learning environment. Instructors and other course mentors have several roles to play. As the main group facilitator, the instructor should shape the design of course learning environments, providing experiences that will develop the global competencies demanded by the labor market. These competencies include teamwork and collaborative skills and cognitive skills related to problem solving, such as critical thinking, analysis, and decision making. Instructors are responsible for designing, guiding, and assessing the learning process. They provide leadership and offer guidance to individuals, teams, groups, and the community at large. Other group members, however, should also take on mentoring roles. Examples of different mentors' roles include content experts, teaching assistants, and coaches.

Technologies play a prominent role in online wisdom communities by enhancing interaction, communication, and collaboration. Technology can also provide learning analytics to instructors and designers, and the insights gleaned from these data can facilitate future community enhancements. The WisCom model assumes that effective wisdom communities spend much of their time engaging in the process of knowledge innovation. Instructional design process in this phase focuses on providing learning environments and technologies to facilitate creating, sharing, and preserving ideas in a collaborative fashion. To support knowledge preservation and transformation, the community will have permanent access to records and memories of their own learning experiences, facilitating their knowledge innovation, decision-making processes, and growth over time.

Over time, with sufficient mentoring and instructor guidance, the community generates wisdom, and its members experience transformational learning. These joint outcomes represent a special kind of learning that combines knowledge, intent and action (Rowley, 2006) through insight, flexibility, and humility (Gunawardena et al., 2006). On the whole, a WisCom-designed course and the cycle of inquiry that structures learners' interactions encourage exploration of culturally derived beliefs and values. This makes the model ideal for culturally diverse learning cohorts.
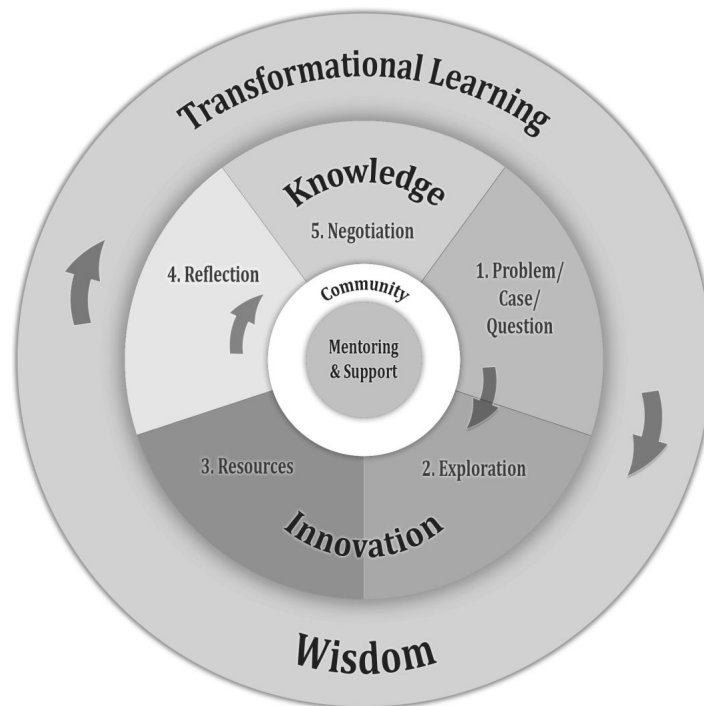
Figure 2. The WisCom model integrates several key elements, including community, mentoring and learner support, knowledge innovation, transformational learning, and wisdom.

Limitations & Considerations

The strategies outlined in this article emphasize certain cultural values while downplaying others. With regard to the nine characteristics of SMCM (Edmundson, 2007), the WisCom model prioritizes a particular set of values:

1. **Social-constructivist learning.** Learners are expected to be active participants, discovering knowledge and co-creating meaning with their cohorts.
2. **Collaborative learning.** Course activities emphasize work within teams, small groups and large groups. Giving and receiving feedback are vital.
3. **Internal learner motivation.** Learners are expected to find their own personal reasons to be a part of the group.
4. **Dynamic content with learner-driven choices.** Learners choose course content. These decisions heavily influence the path their learning takes.
5. **Instructor as guide and facilitator.** The instructor in a WisCom-designed course is a guide, mentor, facilitator, and coach.
6. **Errors should be embraced.** WisCom courses encourage hands-on experimentation. When experiments fails, results are logged and insights are gained.
7. **Learners generate content.** Learners develop course content. They provide examples, pose problems, and bring relevant resources to bear.

8. **Learning reflects participants' experiences outside the classroom.** WisCom communities endeavor to explore solutions to real-world problems. They discuss ways to implement the solutions they generate and apply them to novel circumstances
9. **Learners can customize their experiences.** Learners define their community roles and the responsibilities they will take on throughout the cycle of inquiry.

Emphasis on these values introduces several challenges and limitations. First, learners unfamiliar with instructional methods tied to these methods -- for example, a reliance on group discussion that might stem from a facilitative teacher role and emphasis on collaborative learning -- may find the expectations placed on them uncomfortable and unfair. Students who expect their teachers to have -- and provide -- definitive answers may be resistant to an approach that puts them in a content-generating role.

Concerns about learner resistance can be mitigated by communicating expectations clearly and providing timely learner support, but more research is needed in this area. A second limitation arises with the introduction of well-structured content domains. In these cases, a small number of solutions to the problem presented may already be known, making efforts to brainstorm many possible answers through the cycle of inquiry unnatural or counterproductive. Again, however, further study is needed to reveal the exact nature of this concern. Lastly, the path toward cultural inclusivity described in this article does not replace the need for localization. Content must still be relevant. However, learners can be called on to help fill these gaps, supplying case studies, examples, resources, and more.

Summary

Adapting online courses for specific cultural groups takes time-intensive guesswork. Instead, instructional designers should employ universal design and social constructivist principles to build a *course culture* inclusive of all learners. Designers who reflect on their own culturally-rooted values, consider how culture will shape learning, and give learners control, can foster an online community that values diverse perspectives.

With its focus on solving complex, real-world problems through divergent thinking and consensus building, the Wisdom Communities Instructional Design Model is one tool particularly well-suited for building groups with diverse cohorts of learners (Frechette, Layne, & Gunawardena, 2014). Designers can rely on a range of scholarship from complementary areas, including mentorship, knowledge management and wisdom, to encourage creative thinking and prepare learners to solve ill-structured problems and explore complex content domains.

References

Alavi, M., & Leidner, D.E. (2005). Review: Knowledge management and knowledge management systems: Conceptual foundation and research issues. In I. Nonaka (Ed.), *Knowledge management: Critical perspective on business and management* (pp. 163-202). New York: Routledge.

Banaji, M. R., & Greenwald, A. G. (2013). *Blindspot: Hidden biases of good people*. Toronto: Delacorte Press.

Barajas, H. L., & Higbee, J. L. (2003). Where do we go from here? Universal Design as a model for multicultural education. In J. Higbee (Ed.), *Curriculum transformation and disability: Implementing Universal Design in higher education* (pp. 285-290). Minneapolis: Center for Research on Developmental Education and Urban Literacy, General College, University of Minnesota.

Bielaczyc, K., & Collins, A. (1999). Learning communities in classrooms: A reconceptualization of education practice. In C. Reigluth (Ed.), *Instructional design theories and models, Volume II* (pp. 269-292). Mahwah, NJ: Lawrence Erlbaum Associates.

Bowers, C. A. (2000). *Let them eat data: How computers affect education, cultural diversity, and the prospects of ecological sustainability*. Athens, GA: University of Georgia Press.

Bransford, J. D., Brown, A., & Cocking, R. (2000). *How people learn: Mind, brain, experience and school, expanded edition*. Washington, DC: National Academy Press.

Căpățînă, G. (2015). The implications of culture in e-Learning. In *Conference proceedings of "eLearning and Software for Education" (eLSE)* (No. 03, pp. 95-100). Editura Universității Naționale de Apărare. Carol I.

Chen, S. J., Hsu, C. L., & Caropreso, E. J. (2006). Cross-cultural collaborative online learning: When the west meets the east. *International Journal of Technology in Teaching and Learning, 2*(1), 17-35.

Edmundson, A. (2007). The Cultural adaptation process (CAP) model: Designing e-learning for another culture. In A. Edmundson (Ed.), *Globalized e-learning cultural challenges.* (pp. 267-290). doi: 10.4018/978-1-59904-301-2

Frechette, C., Layne, L., & Gunawardena, C. N. (2014). Accounting for culture in instructional design. In: I. Jung & Gunawardena, C. (Eds.). *Culture and online learning: Global perspectives and research.* Sterling, VA: Stylus.

Gallavan, N. P., & Kottler, E. (2012). Advancing social studies learning for the 21st century with divergent thinking. *Social Studies*, *103*(4), 165-170.

Guild, P. B., & Garger, S. (1998). *Marching to different drummers*, (2nd ed.). Seattle: Association for Supervision & Curriculum Development.

Gunawardena, C. N., & LaPointe, D. (2008). Social and cultural diversity in distance education. In T. Evans, M. Haughey, & D. Murphy (Eds.), *International handbook of distance education* (pp. 51-70). Bingley, United Kingdom: Emerald.

Gunawardena, C. N., Ortegano-Layne, L., Carabajal, K., Frechette, C., Lindemann, K., Jennings, B. (2006). New model, new strategies: Instructional design for building online wisdom communities. *Distance Education*, *27*(2), 217-232.

Hall, E. T. (1981). *Beyond culture: Into the cultural unconscious* (1st ed.). Garden City, NY: Anchor Press.

Hamdan, A. K. (2014). The reciprocal and correlative relationship between learning culture and online education. *The International Review of Research in Open and Distance Education, 15*(1), 309–336.

Hofstede, G. H. (1984). *Culture's consequences: International differences in work-related values*. Newbury Park, CA: Sage.

Hofstede, G. H. (1997). *Cultures and organizations: Software of the mind* (2nd ed.). London: McGraw-Hill.

Hogan, R. (2011). eLearning: A survival strategy for developing countries. *Social and Economic Studies, 60*(3/4), 127-150.

IRIN News. (2012). Online learning inspires refugees. *IRIN News*. Retrieved from http://www.irinnews.org/report/95259/education-online-learning-inspires-refugees

Liu, Y.C., Kao, C.Y., & Chakrabarti, A. (2015). Instruction in divergent thinking for conceptual design: A case study based on a corkscrew. *International Journal of Automation and Smart Technology, 5*(3), 137-143.

Liu, X., & Magjuka, R. J. (2011). Learning in cross-cultural online MBA courses. In A. Edmundson, *Cases on globalized and culturally appropriate e-Learning* (pp. 168–186). Hershey, PA: IGI Global. doi: 10.4018/978-1-61520-989-7.ch008

Marinetti, A., & Dunn, P. (2002). Cultural adaptation: Necessity for global elearning. Retrieved from http://www.linezine.com/7.2/articles/pdamca.htm

Olaniran, B. (2009). Discerning culture in e-learning and in the global workplaces. *Knowledge Management & E-Learning: An International Journal, 1*(3), 180–195.

Pappas, C. (2015). Divergent thinking in eLearning: What eLearning professionals should know. *eLearning Industry.* Retrieved from https://elearningindustry.com/divergent-thinking-in-elearning-what-elearning-professionals-should-know

Robinson, K. (2011). *Out of our minds: Learning to be creative.* West Sussex, United Kingdom: Capstone.

Rowley, J. (2006). Where is the wisdom that we have lost in knowledge? *Journal of Documentation, 62*(2), 251-270.

Strong, M., Joy, B., Pulluru, M., Dong, T., & Zhou, E. (2011). India to China – Repurposing Learning Software across Cultures. Cases on Globalized and Culturally Appropriate E-Learning, 245–262. doi:10.4018/978-1-61520-989-7.ch012.

Swierczek, F.W., & Bechter, C. (2010). Cultural features of e-learning: A Euro-Asian case study. In J.M. Spector et al. (Eds.), *Learning and instruction in the digital age.* (pp. 291-308). New York, NY: Springer.

Szilagyi, A. (2015). "I am different from other women in the world." The experiences of Saudi Arabian women studying online in international master programmes. *European Journal of Open, Distance and E-Learning*, *18*(1), 85-98. doi:10.1515/eurodl-2015-0006

Szilagyi, A. (2014). Nigerian students' perceptions and cultural meaning construction regarding academic integrity in the online international classroom. *European Journal Of Open, Distance And E-Learning*, *17*(1), 172-189.

Thomas, M. K., & Colombus, M. A. (2010). African American identity and a theory for primary cultural instructional design. *Journal of Educational Technology Systems*, *38*(1), 75-92.

Thomas, M., Mitchell, M., & Joseph, R. (2002). The third dimension of ADDIE: A cultural embrace. *TechTrends, 46*(2), 40-45.

Trompenaars, A., & Hampden-Turner, C. (1998). *Riding the waves of culture: Understanding cultural diversity in global business* (2nd ed.). London: McGraw-Hill.

The U.S. News & World Report (2016). Top world universities:US news best global universities. Retrived from http://www.usnews.com/education/best-global-universities