Culturally Sensitive Learning Design: Professional Development for Diversity and Inclusion

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According to the Power of International Education (2019), the number of international students in the US reached a new high of more than a million. These students studying alongside their American classmates are an asset and add to the diversity of the learning environment. Their choice of studying at an American university is reflective of the dedication of American colleges and universities to students' academic, professional, and personal successes (IIE, 2019). This diverse group of students not only represent different race, gender, ethnic group, age, religion, sexual orientation, citizenship status, mental and physical attributes, but also their national and individual cultures. Diversity, however, is not representative only of cultures outside the US, but also of those from within.

Intercultural communication is an important aspect of learning for these diverse groups of students. Hofstede (1991) defined culture as that collective programming or behaviors of a group of people that distinguishes them from others, and according to CARLA (2019), Center for Advanced Research on Language Acquisition, culture is the shared patterns of behaviors and interactions, cognitive constructs, and affective understanding that are learned through a process of socialization. These shared patterns identify the members of a culture group and distinguish them from another group. Within these cultural frameworks are patterns of behavior for subgroups (gender, age, religious practice, socio-economic status etc.) which argue that not only are there inter-cultural variables, but there are also intra-cultural variables. Learning and related communication skills are part of this framework of behavior. Despite their observable presence within educational institutions, diverse students are often outliers, even when their numbers are large. They are not necessarily "needy" students, novice or remedial learners; rather, they are often academically strong and hold expert knowledge.

Diverse students are part of both face to face and online classes at most educational institutions. According to Dusst & Winthrop (2019) online education has become an increasingly accepted option, especially when coursework can be "stackable" into degrees (Friedman, 2016; Ruff, 2016). Online classrooms provide opportunities for a confluence of learners from both national and international contexts. This confluence produces rich learning experiences and provides benefits by opening up physical and temporal boundaries to provide access to learning for large numbers of students. As with face to face classrooms, communication remains an important part of these students' learning experiences. Additionally, learning is largely effected by cultural norms of the instructors and the students. Online classrooms are not unlike face to face classrooms and diverse learners, where according to Vatrapu & Suthers (2007), they feel the profound effect of culture on technological learning environments because of cultural attributes, such as interaction patterns, meaning construction, classroom interaction patterns, and other social-cognitive factors that influence their learning. In the online classroom, the question is about how do we bridge intercultural communication to facilitate learning, particularly when students are not connected in space and time. In online synchronous learning, the variables related to communicating with instructors and peers remain somewhat similar to those in face to face learning. However, in online asynchronous learning, where contact with the instructor and peers are minimized and where learners learn from instructional modules and materials created by instructional designers, there is a need to consider variables that effect intercultural learning. Factors, such as bridging communication gaps between learners, between the learner and instructional materials, as well as between the learner and the instructor (Vatrapu & Suthers, 2007, Milheim, 2014) need to be addressed and incorporated during the design and development of online courses. According to Borden (2016) innovative solutions are needed to create a culture of "best" learning by embracing pioneering practices grounded in neuroscience, learning research, and best practices in education technology.

In line with the national trend, a large influx of international students enrolled in undergraduate and graduate programs at a small private institution, for which this was relatively a new charge. A large number of these students are enrolled in online classes as part of their program of study. These online classes are developed with a partnered effort between a faculty and an instructional designer. The course design process involves the faculty as the subject matter expert, who provides the course content and the instructional designer, who as the learning theory specialist. They work cooperatively to design and develop online courses using the most appropriate framework for the learning solution. For faculty and instructional designers, who are not trained in culturally sensitive pedagogy, it is not uncommon as professionals to assume that the online learning environment is the same for everyone, but how about the users in the environment – do they perceive something different? (Vatrapu & Suthers, 2007).

For the purpose of the training at the institution described above a two-pronged approach was employed using Hofstede's cultural dimensions (Table 1) and an inclusive learning model, a framework from education that looks at the classroom as a whole. The premise for the training was based on the notion that learning is governed by culture; therefore, learning environments are not culturally neutral, that computers and other digital devices are cultural tools, and that instructional designers are not culturally neutral individuals. The reality of the online classroom is inclusive, in which culturally diverse students share the same learning context as mainstream American students. The goal of the workshop was to train instructional designers to use culturally sensitive learning pedagogy for all learners, including diverse learners from international contexts by addressing two key areas: culture and knowledge acquisition.

Dimension 1: The Culture Domain

Hofstede (1986) discussed interaction differences between the teacher and students and related them to his original 4-D model of cultural differences among societies. According to Hofstede, these differences between teacher and students emanates from four dimensions of cultural differences: Individualism versus Collectivism, large versus small Power Distance, strong versus weak Uncertainty Avoidance, and Masculinity versus Femininity. These four dimensions were used in the development of the workshop for instructional designers.

Table 1. Hofstede's Cross-cultural communication model

Hofstede's Dimensions	Explanations of the Dimensions
Individualism/Collectivism	This dimension is about the extent to which people feel independent, as opposed to being interdependent as members of the larger group, where members recognize and respect their space within the group.
High power/Low power distance	This dimension is the extent to which more powerful members of society within organizations and institutions provide leadership to the less powerful members, who accept and expect that power is distributed unequally.
High certainty/low certainty	This dimension is the extent to which there is low tolerance for the unknown, which causes anxiety and distrust, with a wish to have fixed routines and rituals.
Masculinity/Femininity	This dimension is the extent to which cultures with high masculinity are driven by competition, achievement and success, with success being defined by the "winner" or "best-in-the-field."

Adapted from https://geerthofstede.com/culture-geert-hofstede-gert-jan-hofstede/6d-model-of-national-culture/

Culture Domain1: Individualism vs collectivism

	Interventions for addressing cultural traits	
Learning traits for learners from **collectivist** cultures functioning in individualist cultures.	What can subject matter experts/course faculty do when organizing content for the instructional designer?	What can the instructional designer do during the design and development phase of the course with the content?
Group work works well	Build opportunities for project-based learning (PBL) or group projects with course content.	Work with faculty to adapt course features with features of PBL using project management

		tools in the course or assignments or modules.
Conformation from groups is important	Establish group roles for students to reduce confusion with conception and initiation, planning, execution, as well as monitoring the project.	Judicious choice of e-learning framework. For example, in a gamified course design provide a balance of cooperative opportunities and competitive experiences.
Relationships with in-group members are intensive and interdependence is high	Establish clear expectations and guidelines for group roles and opportunities for peer feedback/evaluation systems	

Culture Domain 2: High Power and Low Power Distance

	Interventions for addressing cultural traits	
Learning traits for learners from **high power distance** functioning in low power distance cultures	What can subject matter experts/course faculty do when organizing content for the instructional designer?	What can the instructional designer do during the design and development phase of the course with the content?
Effective learning is related to expert knowledge, such as dependence on established knowledge from textbooks, information provided by subject matter experts, such as direct expert lectures.	Balance teacher-centered approach, by providing information related to content through video or audio lectures with independent learning opportunities with instructional materials.	• As learning experts, balance different viewpoints of learning: balance direct teaching with opportunities for independent learning. • Understand the learning gap being bridged and derive appropriate learning outcomes. • Implement instructional strategies that balance direct teaching of declarative knowledge with experiential learning associated with procedural or problem-solving types of learning.
Sharing opinions, thoughts or ideas in groups or with instructor in the large group.	In asynchronous settings, provide opportunities to set up online meeting times to work with student questions after class. In synchronous settings use the meeting time to work with student questions.	Design opportunities within the course to ask questions at point of need through communication tools embedded in the LMS or build metacognitive checks (ex. *"What was most confusing to me about the material explored in the module?")*
Students hesitate to participate in group work or group discussion	Lower affect associated with group work by providing explicit directions about group participation and assisting with group roles.	Embed directions related to explicit instructions related to group work.
Individual learner creativity and independent learning	Provide "structured" interaction opportunities through carefully crafted pedagogical use of communication tools, such as discussion board activities, or chats.	Use resources within the Learning Management System to design learning opportunities to leverage communication related to instructional materials.

Culture Domain 3: High Certainty Avoidance vs. low Certainty Avoidance

	Interventions for addressing cultural traits	
Learning traits for those from **high uncertainty avoidance function** in low uncertainty avoidance cultures	What can subject matter experts/course faculty do when organizing content for the instructional designer?	What can the instructional designer do during the design and development phase of the course with the content?

Learners look for preciseness in instruction and course related activities	When preparing content module pages, simplify and clarify language to modify the rigor of instructions, explain academic vocabulary or other content related jargon.	Determine where the difficulties lie in the way the instructor has provided information and apply visual thinking design principles, but don't water down rigor. Using e-learning support with content related vocabulary, provide in demand micro learning units.
Learners have less tolerance for ambiguity and low risk-taking to avoid failure.	Provide explicit directions with assignments and other tasks.	Use resources within the LMS to design learning opportunities to leverage communication related to instructional materials.
Learners believe that teacher knows everything. Learners find it difficult when the teacher says "*I don't know*." or "*I am not sure*."	Instructor needs to be the "sage" and provide responses since the student looks up to the teacher.	Instructional designers need to design balancing direct instruction and interaction from the "expert" source.
Student accuracy is rewarded. Strong need for affirmation and consensus		Design and build reward systems.

Culture Domain 4: Masculinity vs Femininity

	Interventions for addressing cultural traits	
Learning traits for those from **cultures with feminine orientation function** in masculine orientation cultures	What can subject matter experts/course faculty do when organizing content for the instructional designer?	What can the instructional designer do during the design and development phase of the course with the content?
Learners do not prefer to stand out from the crowd therefore cooperation rather than competition is preferred	Organize learning activities to respect cooperation and collaboration.	Judicious choice of e-learning framework. For example, in gamified course design provide a balance of cooperative opportunities (team up) and competitive opportunities. Work with the instructor to create opportunities to compete in "groups"
Learners have a great deal of overlap between male and female roles and place importance on relationships with those they work with.	Be involved with project groups and provide help with structuring conversation, as needed.	Use of cooperative learning strategies through project-based learning.

Dimension 2: The Knowledge Dimension

In the online classroom, the knowledge dimension relates directly to learning, which is about bridging the learning gap through well-designed instructional materials. According to Gagne (1965) learning is process that changes human disposition over a period of time and which cannot just be attributed to general human growth. According to Knowles (1984) learning is the process of gaining knowledge and expertise. Learning is therefore part of the human experience that involves intentionality to bring temporary or permanent change in the human behavior and cognition.

As part of their college entrance requirements, students from diverse linguistic background have demonstrated English language proficiency and have taken one or more standardized tests in English. For undergraduate students typically in addition to the usual Scholastic Assessment Test (SAT) or American College Testing (ACT), they have had to provide proof of English language proficiency as measured by scores on the Test of

English as a Foreign Language (TOEFL). Similarly, graduate students are expected to pass the Graduate Record Examinations (GRE), Graduate Management Admission Test (GMAT) or other professional tests and the English language proficiency test TOEFL. Additionally, these students possess a level of conversational skill that allows them to communicate with peers and instructors, but it is academic language and the rhetorical conventions of their discipline that provide unique challenges because of content-specific vocabulary, complex sentence and syntactical structures used to express complex thoughts and concepts. For example, the language of literacy in science, which includes analysis of research is different from that of history, where there is discursive practice with discussion and exposition of historical events.

Two factors that pose difficulties for these English language learners are related to content rigor and cognitive load of the learning tasks. Diagram 1, adapted from the work of Cummins (1984) lays out the relationship between the cognitive load of tasks and language support. Task that are cognitively easy and require less language support are easiest for the linguistically and culturally diverse learner, while tasks that require cognitive effort and much language support are difficult as both dimensions present learning challenges.

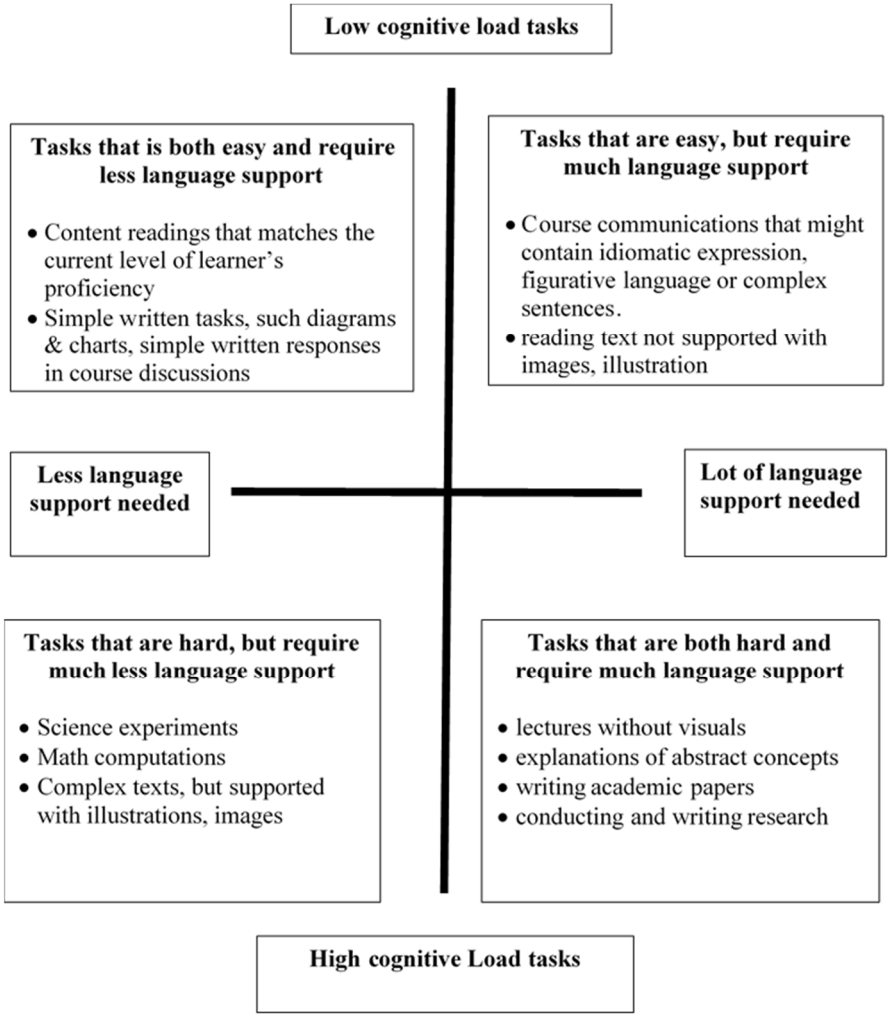

Diagram 1. Learning Task and Learning Support Relationship (adapted from Cummins (1984)

Becoming aware of the hurdles that learners face can help when creating learning materials and providing help with the learning process. Content rigor relates to the intrinsic rigor associated with learning the content of a particular discipline. In order to provide guidelines for understanding text complexity, the Common Core State Standards (2009) provided three specific areas to consider when determining text complexity: quantitative features, such readability measures; qualitative features, such as the language used, the levels of meaning, and knowledge demand, and reader/text relationship factors, such as the reader's motivation, background knowledge, and task

variables that include the complexity associated with the task. While the Common Core measures of text complexity are applied most frequently to K-12 texts, and while the measures that are in place for gauging text complexity in college level textbooks are typically readability formulas, such as Flesch scores, it can be argued that the three dimensions: quantitative, qualitative and reader/task could be applied to textbooks at the college level to provide a more complete understanding of text complexity.

In order to deal with complex text and demanding tasks, the workshop broke down the two areas suggesting interventions that the subject matter experts/course faculty could do and those that the instructional designers designing online classes could do.

	Interventions for addressing knowledge dimension	
Content related issues for learners who are linguistically and culturally diverse	What can subject matter experts/course faculty do when organizing content for the instructional designer?	What can the instructional designer do during the design and development phase of the course with the content?
Content Rigor	Provide support with reading and writing tasks • Address discipline specific academic vocabulary, • Use chapter summaries as advanced organizers • Provide chapter outlines Writing support • provide samples of academic writing that provide good models of language use, structural aspects, and discipline-specific rhetorical patterns • provide writing support through applications such as Grammarly which addresses grammar rules, contextual spell checking, vocabulary enhancement, plagiarism checker, and provides suggestions as well as corrects writing mistakes • provide writing style support for APA, MLA, Chicago or other stylistics with information from robust internet sites such as OWL Purdue.	Design digital learning objects in online courses that address Vocabulary through interactive vocabulary banks Provide visual support for complex information from the text Use Infographics and other learning aids to provide advanced organizers, vocabulary support, chapter summaries, microlearning videos, digital story telling related to the course content using narrative design frameworks.
Cognitive load of tasks	Reduce intrinsic cognitive load Activate prior learning During learning plan to use intermittent learning checks, reduce academic rigor of content-specific vocabulary and complex sentence structure. Implement activities that encourage self- check, use application and extension of learning through problem-based learning or real-world experiences	Design digital learning objects in online courses that follow a learning path derived from course objectives, assessments, instructional strategies that breaks up the content but is in sync with other course materials, such as the text or other learning aids. enrich course materials with visual design that promote learning through proper layout design.
Pedagogical orientation	Be more teacher directed even when the orientation is more constructivist.	Design with culture in mind Essential reflective questions: *Will the students get this?*

	Make place for direct instruction, not necessarily lecture. Build cooperative learning activities Be open to intercultural learning and to other cultures: Views about time and space Views and expectations from teachers towards teacher Attitude toward different kinds of learning tasks Attitude toward the learning context	*How can we design this based on what I know and understand about the culture?*

In order to be able to design effective and engaging instruction both subject matter experts/course faculty and instructional designers have a key role to play in creating courses where learning is made accessible through consideration of cultural factors that impact learning. International students face unique academic challenges while at American universities despite having been academically successful in their own countries. The challenge of academic language and acculturation create stressors that can be mitigated by culturally sensitive online pedagogy and course design, where a conscious link is established between culture and learning.

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