# Acknowledging and Adapting Cultural Constructs to Improve Teaching and Learning

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## Background

Growing research shows that faculty’s cultural constructs of teaching often do not align with students’ cultural constructs of learning. Most US faculty have origins in northern European cultures (Rendón, 2009) and are likely to design and facilitate courses from individuated cultural epistemologies (Brayboy & Maughan, 2009; Fried, 1994). In contrast, Native American, Hispanic, and Mestizo students describe learning strongly within a culturally integrated epistemology (Chávez et al., 2010).

To help remedy the gap, STEM Gateway, a Title V funded project at UNM with a mission to increase the number of minority students that graduate with STEM degrees, offers a Teaching for Diversity workshops aimed at helping teachers create instruction inclusive of all students.

## What Teachers Did Cont.

### During the workshop:

Participants are given the Cultural Constructs of Teaching and Learning worksheet (see below) and are instructed to:

1. Plot where you fall on the cultural constructs of teaching and learning Individuated-Integrated spectrum.
2. Brainstorm ways of adjusting pedagogy so that teaching is inclusive of students who fall on both sides of the spectrum. This included modifying the worksheet for students.

### cultural constructs of teaching and learning

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuated</td>
<td>A culturally individuated worldview or epistemology, a compartmentalized, private, contextually independent conception of the world is common, assumed, and valued.</td>
</tr>
<tr>
<td>Intermediated</td>
<td>A conceptually linked, inter-connected, mutual, contextually dependent conception of the world is common, assumed, and valued.</td>
</tr>
<tr>
<td>Integrated</td>
<td>A culturally integrated worldview or epistemology, an interconnected, mutual, contextually dependent conception of the world is common, assumed, and valued.</td>
</tr>
</tbody>
</table>

**Purpose**: Wisdom, betterment of the lives of those with whom we are connected

**Way of knowing / taking in information**: Mind, body, distribution, emotions, through relationships

**Ways of making sense / learning styles / processing information and knowledge**: Visual, intuitive/spiritual, natural, interpersonal, intrapersonal, bodily/kinesthetic, musical/rhythmic

**Space/Privacy/Interconnectedness of what is being learned**: Contextualized and connected, belief that understanding how things affect each other within the whole, pragmatically, and within community will lead to understanding

**Learning is a private, individual activity / responsibility for one’s own learning**: Learning is a collective, shared activity. Responsibility for one’s own and other’s learning, personal space is private

**Unconscious of cultural traits related to teaching and learning**: Conscious of cultural traits related to teaching and learning

**Cultural Consciousness / Provider and evaluator of knowledge**: Multiple perspectives and ways of learning, predetermined/bounded

**Role of teacher / control**: Facilitator of learning experience – emergent / constructive

**Interactions and Communications**: Involving a wide variety of interactions between students and between teacher and students; high use of nonverbal and multiple streams of communication

## What We Learned

- STEM faculty and graduate students tend to be skewed towards individuated side of the spectrum in most categories.
- Instructors from Student Affairs offices tended to be more integrated.
- All participants viewed traditional instruction of STEM courses as favoring individuated learning.

## Conclusions/Recommendations

It is up to us as faculty to design learning contexts that reflect all of our students by integrating teaching practices from a diversity of cultural epistemologies (Chavez, et al., 2012). Activities such as the one provided can be an effective way of engaging faculty with the cultural frame of their teaching, the cultural frame of their discipline, and with teaching to diverse populations.

I encourage you to plot where you are on the spectrum and think of ways to maneuver between the spectrum as you design activities for faculty at your institution.

## What’s Next?

Future work should explore the development of concrete approaches to teaching that will help reach students across the spectrum and move students across the spectrum. These approaches can help keep students in STEM rather than exclude them because of cultural misalignments.

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**A big “Thanks” to…**

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