Recently, some colleagues and I have engaged in a powerful book study of Zaretta Hammond's book *Culturally Responsive Teaching and The Brain*. Hammond's work has immersed us ways to support culturally and linguistically diverse students through authentic engagement and rigorous thinking.

In this blog, I approach the topic of supporting our English Language Learners through the lens of culturally responsive teaching (CRT).

**Neuroscience and Culturally Responsive Teaching**

As neuroscience advances, we are finding out more and more about how the brain learns. We are able to see more of the importance of the brain’s executive functions in directing learning, problem solving, and self-regulation. For many of us, our teacher preparation programs briefly covered this topic, but never afforded us the opportunity to really dig in and explore the implications for our everyday teaching. Recent research has further clarified how culturally responsive practices set the context for engagement and growth.

Culturally responsive teaching (CRT) goes far beyond alluding to students' home culture or bringing in examples of traditions and customs. Although this approach might make students feel included, it fails to bring the necessary rigor into our instructional practices.

More than a motivational tool, CRT is a serious and powerful way to accelerate student learning. As educators, this is our ultimate goal! There is a clear connection between how the brain learns and rigorous culturally responsive teaching. We can prepare students for rigorous learning through culturally responsive practices!

English Language Learners and culturally diverse students are simultaneously engaging in the learning, acquiring a second language, and/or acclimating to a new culture. In part 2 of our series on supporting English Language Learners in Collaborative Literacy, we explored the affective filter and its impact on students who are acquiring a second language. We established the importance of ensuring that the learning environment we create for ELL students is emotionally safe. However, the neuroscience takes us deeper. Neuroimaging demonstrates what happens in the brain when the affective filter is high and the student is in an emotional state of stress. It reveals to us that students' comfort level critically impacts information transmission and storage in the brain. The factors that affect this comfort level, such as self-confidence, trust in and positive feelings for teachers, and supportive classroom and school communities, directly relate to the most successful learning, remembering, and higher-order thinking.

Hammond has outlined six core design principals (brain rules) to help us understand how the brain uses culture to interpret threats and opportunities. Here is brain rule 1 for us to consider.
Note: The order of the principles isn’t important except for this one (number 1). It is the base for the rules to come.

1. The brain seeks to minimize social threats and maximize opportunities to connect with others in community.

- The brain seeks to be happy and safe
- The brain protects well-being, self-determination, and self-worth
- The brain will not seek to connect to others if it feels threatened socially or psychologically
- The amygdala in the brain is on alert trying to detect “microaggressions” (subtle, verbal/nonverbal slights or snubs that communicate hostility/negative messages)

Students who do not feel supported are especially vulnerable to feeling threatened and inferior. And students who feel threatened most likely go into fight, flight, or freeze mode to avoid public humiliation. As Hammond points out, the teacher’s definition of what feels threatening or welcoming might be different from the students’ definitions. It is important to understand and act upon our students’ definitions even if they do not coincide with our own.

Fostering a classroom free from psychological and social threats is critical for students from diverse backgrounds, but it is not enough. The students need to be part of a caring social community to maximize a sense of well-being. Especially for ELLs and culturally diverse students, it is essential to feel affirmed and valued as members of a learning community. Building this kind of nurturing environment is fostered by the social and emotional component of Collaborative Literacy and the support the lessons provide for these and all students!

Want to be a part of our book study? Collegial conversations? We invite you to lend your voice on our Collaborative Classroom Facebook page!