

CULTURE & LEARNING



There have been significant shifts in some fundamental understandings of the ways that human beings learn. Increasingly, the emphasis is on learning with understanding rather than memorization¹. While knowing facts is important, useable knowledge is better.

All people come to activities with a range of prior knowledge, experiences, beliefs, skills, values, and interests². These, in turn, affect ones' abilities to remember, reason, problem-solve, and acquire new knowledge³. Whether intentionally or not people connect and make sense of new experiences and knowledge in relation to previous experiences and knowledge.

Thus, learning happens most efficiently when teachers actively engage students' prior knowledge and view it as an asset for learning rather than a problem to overcome⁴. This has been referred to as engaging students funds of knowledge⁵. This can and often does include instruction in a student's first language.

Educators' views and understandings of culture and learning shape decisions about what to teach, how to teach, and how they interpret students' thinking and behavior.



SEEING AND ENGAGING STRENGTHS

Of children

In an increasingly globalized world, the assets of language and community culture are even more important resources for children's future growth. Today, educators must focus on these "strengths or funds of knowledge" and build from there

Of Indigenous peoples

Indigenous peoples have rich histories, bodies of knowledge, traditions, values, and survival stories that have not always been incorporated into schooling. Make these central to instruction

INSTRUCTION & CURRICULUM

Quality instruction and curriculum and strong teacher preparation are all associated with student learning achievement. In addition, educational research underscores the need for teachers to deeply understand the sociocultural context(s) in which they teach.

For example, several studies show that teachers who have knowledge of students' communities and cultures and are prepared to link curriculum to local concerns, interests, and cultural knowledge are in the best position to promote student learning⁶⁻⁹. Other studies that more specifically examine the mathematics performance of Indigenous students show them to be more engaged in learning and better performing when their teachers incorporate aspects of their heritage mathematics knowledge^{7, 10}. In general terms, a teacher would exhibit such an approach by using mathematical knowledge from students' communities (such as how to construct a rack for drying fish) as a means for teaching to the established mathematics standards of the district. Examples of other aspects of instruction that would complement the use of cultural content include:

- use of culture-based ways of interacting and communicating, such as peer-regulated participation in discussion¹¹⁻¹²
- use of culture-based ways of learning, such as observation and side-by-side modeling rather than face-to-face telling¹³⁻¹⁵
- use of culture-based ways of representing knowledge or organizing information, such as through visual means and rationally or holistically¹⁶
- use of strategies that allow for flexibility and student choice such as thematic or project-based instruction⁷
- use of culturally-compatible ways of assessing learning, such as through demonstration or group performance¹⁷⁻¹⁸
- incorporation of historical and ethical dimensions of mathematics and science¹⁹



CULTURE

People often have different understandings about what culture means. Formal understandings of culture as related to teaching and learning have moved beyond simple categorical membership (e.g. I am Native) to understanding the range of ways human beings make sense of and construct knowledge about the world, (including their values, beliefs, and traditions) as we participate in the daily lives of our families, communities, and nations²⁰. These practices are both historically grounded and connected and they are also changing. Researchers sometimes call these "Sense-making repertoires." From this vantage point, all of us, throughout our lives, develop richly varied sense-making repertoires to accomplish purposes valued by us and by the communities in which we participate²¹.

Our sense-making repertoires include, as examples, varied forms of question asking, arguing, narrating, and explaining as well as varied orientations to the natural world, defining what's worthy of attention or in need of explanation. Further, these sense-making repertoires are shaped and impacted by the languages that we speak²².

REFLECTION

Rethinking education to meaningfully connect contemporary schooling practices with local contexts and ways of knowing is an important step in supporting strong communities and quality education. As an educator, how have you been helping to make this connection or how might you try this in your context?

CRITICAL QUESTIONS

Is this different than how you understand culture? How? Are the differences important for teaching and learning? Why or why not?

Do you have a good sense of your students' funds of knowledge?

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- Images courtesy of EMMAS Project: Native Science, Technology, Engineering, Art, and Math Summer Youth Program, 2014

BUILDING CAPACITY AND CULTIVATING INNOVATION- BCCI is designed to develop resources and practices that will have exponential impacts on efforts to improve Native student success across a variety of sectors.

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