**Inquiry-based Teaching Methods Can Benefit Culturally and Linguistically Diverse students and Students with Special Needs.**

In a California school district, an inquiry-based approach to science with

English Language Learners (ELLs) led to greater proficiency in not just

science, but also English language, reading, and math. Fourth and sixth grade

ELLs in a high-poverty, mostly Latino school district in southern California showed more improvement on standardized tests in math, science and reading the longer they were enrolled in an inquiry-based classroom. Researchers concluded that inquiry-based science lessons are of particular benefit to ELLs because the hands-on activities allow learners to construct context, develop positive attitudes toward learning, and engage in authentic conversation with peers. Amaral, Olga, Leslie Garrison, Michael Klentschy. 2002. Helping English learners increase achievement through inquiry-based science instruction. Bilingual Research Journal 26 (2): 225-234.

Thoughtful use of an inquiry-based teaching approach classroom bridged

the gap between home and school culture on a Navajo reservation. Nonnative

teachers of Navajo students at a school in Arizona struggled to adapt lessons to

the students’ cultural norms of speaking. Students’ concerns about ‘showing off’

conflicted with teachers’ expectations that students be actively engaged in discussions. When four primary school social studies teachers at the Rough Rock Demonstration School engaged collaborative peer groups in inquiry projects rather than relying on whole-group lecture and discussion, they saw significant gains in student participation levels and greater student interest in connecting content to the social, economic and cultural realities of their society. Students who were formerly quiet and seemingly disengaged began to actively participate in class and applied what they learned to a variety of new contexts.

McCarty, T.L., Regina Hadley Lynch, Stephen Wallace, AnCita Benally. 1991. Classroom Inquiry and Navajo Learning Styles: A Call for Reassessment. Anthropology and Education Quarterly 22 (1):42-59.

When used in place of a textbook approach, an inquiry-based approach

yielded significantly higher achievement for high school students with

special needs. Twenty-six junior high school students with learning disabilities

studied two science units via an activity-based, inquiry-oriented approach or a textbook approach. Pre- and post-tests revealed that when students were taught by experiential, more indirect methods, they learned more and remembered more than they were taught by more direct instructional methods. The research also revealed that hands-on science activities were greatly favored over textbook activities by students who had experienced both. Students were asked about their impressions of the two instructional methods. 96% reported that they enjoyed the inquiry approach more, and over 80% considered the activities more facilitative of learning and more motivating.

Scruggs, T. E. and M.A. Mastropieri. 1993. Reading versus doing: The relative effects of textbook based and inquiry-oriented approaches to science learning in specialeducation classrooms. Journal of Special Education 27 (1):1-15.