

Teacher Training: Is Enough Being Done To Prepare Our Teachers?

At the same time that test scores and student assessments depict a continuous decline in student performance and achievement in mathematics and science, California also faces a shortage of qualified teachers with the appropriate background and training in the fields of mathematics and science. The Center for the Future of Teaching and Learning found in a 2004 report that significant numbers of mathematics and science teachers lacked the necessary training, background and authorization needed to teach mathematics and science in state of California. In fact, at the eighth grade level, more than 40 percent of those assigned to teach Algebra I lack the required background to teach mathematics.

In an effort to increase academic performance in California schools, the Mathematics and Reading Professional Development Program was established by Assembly Bill 466 in 2001 to provide a source of teacher training and development. The professional development focuses on State Board of Education-adopted Mathematics and Reading/Language Arts/English Language Development instructional materials for grades K-8 and on local educational agency adopted instructional materials for grades 9-12.

This professional development program focuses on standards-based instructional materials and grade-appropriate teaching and intervention strategies. Along with teacher professional development, the program provides opportunities to instructional aides and paraprofessionals for professional development training. An effort to extend the sunset provision of the Mathematics and Reading Professional Development Program until 2012 in order to continue to meet the on-going needs of teacher training and development (Senate Bill 414 - Alquist) was vetoed by the governor.

Although the Mathematics and Reading Professional Development Program attempts to adequately address California's need to provide on-going teacher development, it falls short of providing a practical and comprehensive solution to the shortage of qualified teachers for mathematics and science. This program does not address the dire science needs, which are vital to improve student performance and achievement in this subject area.

Additionally, the definition "instructional materials that are aligned to state standards" for grades 1-8 lacks the necessary flexibility granted in the definition for grades 9-12. The latter definition allows the governing board of the local education agency, after careful review, to certify materials as aligned to state content standards and curriculum frameworks.

Simply because a particular material is adopted by the State Board of Education as a primary instructional material does not mean it is the only material used. Teachers are often required to supplement adopted materials with materials local school boards believe are aligned with the state standards and are helpful to students. Teachers should be as well trained in the use of these supplemental materials as they are in primary textbooks. However, the current design of the Mathematics and Reading Professional Development Program for teachers in grades 1-8 does not allow the use of monies to receive training in, for example, software written to supplement the primary instructional material.

In order to boost student performance in mathematics and science, it is critical that professional development for teachers require training that includes strategies of differentiated instruction, particularly in the case of students with disabilities and English language learners.

In order to ensure that California students are provided with every opportunity to enhance their performance in mathematics and science, we must provide our teachers with the necessary training, professional development, and tools to provide quality instruction.