STRIVE is a professional development project for middle and high school teachers based at San Diego State U, Imperial Valley. Imperial County is a high-poverty agricultural area east of San Diego with an 85% Hispanic population. The county reliably ranks last among California’s 58 counties in math achievement. Schools allay a chronic need for math teachers by hiring teachers who obtained their qualifications via alternate methods. Meanwhile, California is moving toward more emphasis on and early introduction of algebraic principles in its K-12 curriculum.

STRIVE trains beginner math teachers—most of whom have no math degrees or credentials—so they can survive and establish work conditions that make them want to stay in their jobs. We run a summer institute aligned with practice teaching, and academic-year workshops. We mostly focus on algebra with intuitive and rigorous reasoning to help teachers adjust to new trends in the curriculum. We have raised the teachers’ pedagogical math content knowledge in measurable ways. We have observed this knowledge trickle down to the students, who are also engaging in mathematical reasoning and finding flaws in each others’ arguments.

We will discuss how we achieved some of these successes and some of the challenges along the way. (Received September 23, 2010)