

Texas Senate Select Committee on Public School Accountability

The Plano ISD Achievement Growth Model

Presented before the Senate Select Committee on April 14, 2008

In Plano ISD we believe we have learned how to measure academic growth in students with a framework that mitigates many of the arguments teachers, administrators, and community members have against other accountability or growth frameworks in existence. Plano ISD's framework measures growth in a way that is fair to all students, regardless of ability; fair to all teachers, regardless of the diversity of students assigned to them; and fair to all campuses regardless of their concentrations of diverse populations, including special needs students, students from low-income families, and those of limited English proficiency.

An important attribute of Plano ISD's growth model is that it is fair to all teachers and campuses in relation to the amount of growth expected of each student. In our research of the models currently in existence, we have learned that these models lack an attribute of what the research literature calls "initial status." That is, the models do not take into consideration that the cognitive starting point of children has a significant effect on gains measured at the end of an academic time period. Therefore, in Plano's growth model, we use Riverside Publishing's CogAT measure to determine the cognitive ability of students in teachers' classes. These cognitive measures are included in the growth model along with LEP status, special education status, and other demographic variables to chart the expected rate of growth for like groups of students within classroom and campuses. As a result, one teacher's group of students or one campus' students do not have an advantage of reaching proficiency expectations more easily versus another group or campus due to the differences in students that are not within teacher or campus control.

A second attribute of Plano ISD's growth model is its ability to measure students who are beyond the TAKS scale (either too far below or too far above the TAKS measurement scale). Through the analysis of multiple measures given to Plano ISD students the past five years, we have discovered that the TAKS test is an appropriate measure for a relatively small percent of the students (approximately 35%). This same percent is the group of students who actually determine PISD's AEIS Accountability rating each year. Since, Plano ISD is interested in a model that measures more of its student population than less, the district contracts with Northwest Evaluation Association (NWEA) to use its computer adaptive Measure of Academic Progress (MAP). While MAP is based on the same psychometric scaling technique as TAKS (Rasch IRT), the MAP scale is a much wider scale that has the ability to measure students within a very wide range of ability. The stability of the single scale provided by MAP allows Plano ISD to test special education students and gifted students without using alternative tests. Additionally, the single scale does not require vertical scaling techniques that often cause statistical problems with many other growth models, including value added models.

The Plano ISD growth model not only provides a measure of improvement but it also is useful to the district in isolating the effect of programs, interventions, and teachers on student performance. The growth model allows the district to quantify performance in terms of months of instruction. This metric enables the district to evaluate the effectiveness of programs in terms of time versus rate of learning and thereby, identify the most effective educational practices.

