

What is Value-Added Assessment?

Value-added assessment estimates the educational impact in a given content area of a given set of students in one academic year by looking at increases in a particular student's achievement from one test administration to another. This measures the "value added" by one teacher's instruction. Value-added uses advanced statistical techniques that account for prior academic skills and student characteristics that have been shown to affect scores.

"Value-added analysis focuses on the achievement gains of individual students over time (for example, from spring to spring). But unlike simple gain-score analysis—in which earlier test scores are subtracted from later scores—value-added analysis uses statistical methods that, in effect, separate out (or at least significantly adjust for) the influence of non-school related variables, such as students' socioeconomic background, on academic growth."

"Value-added test-score data, combined with other measures of performance, permit policy makers to hold teachers and administrators accountable for the value they add to students' educational experience without penalizing (or rewarding) them for pre-existing differences in their students' background and ability."- National School Board Association (2003), "The Value of Value-added Analysis."

What does your district need to calculate value-added?

To implement a value-added accountability system, four key data requirements must be met.

1. Students must be tested at least annually.
2. Test scores must be reported on a common scale so students' test scores can be compared from one year to the next.
3. To track student achievement gains over time, students must be assigned individual identification codes (IDs) that remain consistent over all school years, regardless of the school attended.
4. You must be able to link student and teacher data.

You can measure value-added at the school level and/or the teacher level.

School Level Value-Added: School Effectiveness Index (SEI)

The school effectiveness index (SEI) captures education impact of all teachers on a campus of a given content area in a given grade level in a given year.

- Advantages
 - Accounts for prior academic achievement and student characteristics
 - Utilizes existing data regularly collected by districts
- Disadvantages
 - May be considered unfair: Hides difference in effectiveness between classrooms
 - Does not result in teacher specific measures of effectiveness that can be used in district's improvement efforts
 - Requires advanced analytic capability
 - Less transparent than simple measures

Classroom Level Value-Added: Classroom Effectiveness Index (CEI)

The classroom effectiveness index (CEI) captures education impact of each teacher of a given content area in a given grade level in a given year.

- Advantages
 - Accounts for prior academic achievement and student characteristics
- Disadvantages
 - Requires student-teacher links, not necessarily possible with district data
 - More complex analytically than school-level value-added (SEI)
 - Less transparent than school-level value-added (SEI)

Various Measures of Student Achievement

There are two ways to measure student achievement within your district award program. You can use simple attainment measures or value-added measures.

1. Simple Measures (Attainment) include:
 - a. Passing Rates
 - b. Increases in Passing Rates
2. Value-Added Measures include:
 - School-level value-added
 - Classroom-level value-added

Examples of Simple Measures:

How You ****Might**** Structure Awards for 4th Grade Reading Teachers Using Passing Rates

- All teachers of 4th grade reading at a campus receive \$3,000 if 75% of the students pass the 4th grade TAKS reading
 - Advantages: Transparent, easy to measure and compute, measures readily available
 - Disadvantages: May be considered unfair, does not isolate educational impact of schools and teachers, not available for all teacher types

How You ****Might**** Structure Awards for 4th Grade Reading Teachers Using Increases in Passing Rates

- All teachers of 4th grade reading at a campus receive \$3,000 if the percent passing in 4th grade TAKS is at least 10% above last year's percent passing on the 4th grade TAKS reading.
 - Advantages: Transparent, easy to measure and compute measures readily available
 - Disadvantages: May be considered unfair, but fairer than Passing Rates, does not isolate educational impact of schools and teachers, not available for all teacher types

Examples of Value-Added Measures:

- Consider Two "Observationally Similar" Students:
 - Rudy: Low-income, Hispanic Male, with a 3rd Grade Reading achievement score of 70 in Spring of 2007
 - Joe: Low-income, Hispanic Male, with a 3rd Grade Reading achievement score of 70 in Spring of 2007
- In 4th grade during the 2007-08 academic year, Rudy had Mr. Olivas for reading and Joe had Mrs. Guzman.
- Is the expected score of Rudy on the Spring 2008 reading assessment likely to be different than the expected score of Joe?
 - YES!!! – because they had different teachers in 4th grade.