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Teacher Evaluation and Student Achievement

James H. Stronge and Pamela D. Tucker

Everyone wants to reward good teaching, but how to fairly and objectively measure it? Clearly, good teaching boosts student achievement but so does a student's home life and neighborhood. The key is to measure the teacher's contribution separately-isolated from these other influences?

According to James Stronge and Pamela Tucker, two experts in the field of teacher evaluation, good teaching can be identified through value-added assessment--a statistical process that analyzes year-to-year student achievement scores. Identifying good teachers on the basis of actual student achievement is more direct and therefore more accurate than even the latest teacher examinations such as the PRAXIS.

Agreeing with parents and policymakers, Stronge and Tucker believe that teaching effectiveness cannot be accurately measured without looking at results. In their view, even "best practice" teaching is effective only if appropriately applied. Thus teacher evaluation must consider both means and ends. However unlike parents and policymakers, they consider student achievement to be only one among many elements of "good teaching," not the primary and indispensable outcome.

Teacher Evaluation and Student Achievement discusses four methods of assessing teacher performance but only two emphasize objectively measured annual achievement gains. Of the two, the Tennessee Value-Added Assessment System (TVAAS) is conceptually the simpler and more accurate. "Unlike the Dallas system, which compares student growth to the growth of other students with similar characteristics (e.g., gender and ethnicity), TVAAS compares each individual student's growth to his or her previous growth rate."

TVAAS has been used successfully statewide in Tennessee for several years. It measures whether teachers bring about achievement gains that are equal to or greater than those earned by the same students under previous teachers.

"The sophisticated statistical methodology of the Tennessee Value-Added Assessment System [TVAAS] offers a number of advantages over other approaches . . ." Used in conjunction with Tennessee's TCAP exam, it both permits objective assessment of teacher effectiveness and provides the data necessary to evaluate programs at the school and district level. For example, by examining TVAAS data, researchers discovered that students with a three year succession of effective teachers gained nearly 60 percent greater achievement than those who had a succession of ineffective teachers.

Perhaps the greatest advantage of TVAAS is its ability to identify teachers who are doing a great job of helping low achieving students. Teacher accountability systems that consider only achievement scores, instead of gains in achievement, cause teachers who have high scoring students to appear effective no matter how much or how little their teaching contributes to student growth. By highlighting gain, TVAAS identifies good teachers who are successful with low achievers and poor teachers who permit high achievers to “coast”--both with equal ease.

TVAAS enables fair comparisons among teachers by removing all pre-existing differences among students. Studies have found gains to be unrelated to racial composition of schools, to percent of free and reduced lunch, and to entry achievement levels.

TVAAS annual reports contain norm-referenced levels of achievement in addition to gains, and by examining the gap between a school's achievement levels and national norms, an estimate can be made of the annual gain necessary to bring students up to national averages in a given number of years. For example, a school with a high percentage of disadvantaged 3rd grade students might have to gain 110 percent annually to bring its students to the national norms by the 8th grade.

Value-added data can be no better than the curriculum and the test on which it is based; therefore, selection of a well-validated test is critical. Tennessee's TCAP test is a customized version of McGraw-Hill's Terra Nova, and it uses fresh, equivalent, non-redundant items every year to discourage teaching to the test.

Although statistically sophisticated, TVAAS is simple to use and costs less than 1 percent of per-pupil expenditure. In Tennessee, educators are gaining confidence in the use of TVAAS; but any assessment system is subject to misunderstanding and misuse, thus Stronge and Tucker list several cautions.

Assuring that both teachers and administrators have a stake in improving learning outcomes is an item that should be added to their list. If all boats rise and fall with the same tide, everyone has a stake in careful and accurate interpretation of the results

The Education Consumers Consultants Network is an alliance of experienced and credentialed educators dedicated to serving the needs of parents, policymakers, and taxpayers for independent and consumer-friendly consulting. For more information, contact J. E. Stone, Ed.D., at (423) 282-6832, or write: professor@education-consumers.com