

# Student Assessments and the MET Project

## Introduction

A teacher has more impact on student learning than any other factor controlled by school systems, including class size, school size and the quality of after-school programs—or even which school a student is attending<sup>1</sup>—but currently, there is no agreement among education stakeholders about how to identify and measure effective teaching. In an effort to improve the quality of information about teaching effectiveness, in the fall of 2009, the Bill & Melinda Gates Foundation launched the two-year Measures of Effective Teaching (MET) project to rigorously develop and test multiple measures of teacher effectiveness.

As part of the project, partners from more than a dozen reputable academic, non-profit and for-profit organizations are collecting and analyzing data collected during the 2009-10 and 2010-11 school years from over 3,000 teacher volunteers and their classrooms across Charlotte-Mecklenburg Schools, Dallas Independent School District, Denver Public Schools, Hillsborough County Public Schools, Memphis City Schools and the New York City Department of Education. Teachers and classrooms in Pittsburgh Public Schools are also participating in the project by helping researchers with early-stage development and testing of the effectiveness measures before they are tested in the other MET project districts.

The project's data is collected across five critical research areas:

1. Student achievement gains on state standardized assessments and supplemental assessments designed to measure higher-order conceptual thinking
2. Classroom observations and teacher reflections

3. Teachers' pedagogical content knowledge
4. Student perceptions of the classroom instructional environment
5. Teachers' perceptions of working conditions and instructional support at their schools

A close analysis of each of these will help establish which teaching practices, skills, and knowledge positively impact student learning. This paper seeks to define and explain how student achievement gains on assessments factor into the MET project.

## About Student Achievement Gains on Assessments

The MET project is based on two simple premises: First, a teacher's evaluation should depend to a significant extent on his or her students' achievement gains; and second, all other evaluation components should be associated with student achievement gains. While committed to the use of student assessments to help measure teacher effectiveness, additional measures that are correlated with student achievement gains will help increase the stability of the effectiveness rating and, importantly, indicate what a teacher could do differently in order to increase student achievement gains.

The project will measure improvement in student achievement in two ways: through existing state assessments<sup>2</sup>, which are

<sup>1</sup> Steven G. Rivkin, Eric A. Hanushek, and John F. Kain, "Teachers, Schools, and Academic Achievement," *Econometrica*, Vol. 73, No. 2 (March 2005), pages 417–458.  
<http://edpro.stanford.edu/Hanushek/admin/pages/files/uploads/teachers.econometrica.pdf>

<sup>2</sup> ([http://www.cde.state.co.us/cdeassess/index\\_csap.html](http://www.cde.state.co.us/cdeassess/index_csap.html)); Hillsborough: Florida Comprehensive Assessment Test (FCAT), [www.fldoe.org/assessment](http://www.fldoe.org/assessment); Memphis: Tennessee Comprehensive Assessment Program (TCAP), <http://www.tennessee.gov/education/assessment/index.shtml>; New York: New

designed to measure student progress on the state curriculum for federal accountability purposes, and through supplemental assessments, which are designed to measure higher-order conceptual understanding. The use of these two forms of assessment together mitigates the widespread concern that evaluation systems reward “teaching to the test” rather than reward teachers who advance their students’ grasp of key concepts and facts. The supplemental assessments used in the study are:

- The ACT QualityCore series for Algebra I, English 9 and Biology, which measures the learning outcomes all students need to attain in order to succeed in college through real-world problems designed to require practical applications of concepts, theories, principles and processes. More information is available at: <http://www.act.org/qualitycore/>.
- The Balanced Assessment in Mathematics (BAM) in grades 4 through 8, which measures higher order reasoning skills using question formats that are quite different from those in the state mathematics achievement tests. BAM assesses understanding of core ideas that are tied to grade-level standards. More information about BAM and the Mathematics Assessment Resource Service, which developed the assessment, is available at: <http://www.nottingham.ac.uk/~ttzedweb/MARS/>.
- The Stanford 9 Open-Ended Reading Assessment in grades 4 through 8, which tests higher order English-language skills by asking students to not only answer each question, but also explain the thinking behind each answer. More information about Stanford 9 assessments is available from Pearson Education at: <http://www.pearsonassessments.com/haiweb/cultures/en-us/productdetail.htm?pid=E132C>.

The supplemental assessments are administered in the spring of each year of the project.

The MET project uses student assessment data in three ways:

1. To calculate two value-added estimates, one for state standardized assessments and one for the supplemental assessments, which are used to

calculate the overall student assessment composite. This composite, together with the composites for each of the other four effectiveness measures, will be used to create the formula that is designed to be a stable predictor of student achievement in a particular teacher’s classroom.

2. To determine whether the level of year-over-year improvements in a given classroom on the state standardized assessments correlates with the level of year-over-year improvements in that classroom on the supplemental assessments.
3. To determine how highly correlated each of the other measures of effective teaching being tested by the MET project are with improvements on standardized student assessments, supplemental student assessments or both types of assessments.

See [www.metproject.org](http://www.metproject.org) for more details about this process.

For more information about the student assessment portion of the MET project and about the supplemental assessments used in the project, contact [info@METproject.org](mailto:info@METproject.org).

## About the Measures of Effective Teaching Project

The Measures of Effective Teaching (MET) project seeks to develop an array of measures that will be viewed by teachers, unions, administrators and policymakers as reliable and credible indicators of effective teaching. By determining exactly what measures predict the biggest student achievement gains, the MET project will give teachers the feedback (including exemplary practices) they need to improve. In addition, a greater understanding about which teaching practices, skills, and knowledge positively impact student learning will allow states and districts to develop teacher evaluation systems that will help strengthen all aspects of teaching—from recruitment through retention.

The MET project has enrolled over 3,000 teachers from a number of school districts around the country and is gathering a variety of data, including videotaped teacher observations, student surveys, teacher surveys and supplemental student assessments, and represents a real opportunity for teachers to inform the national discussion on education reform, in order to determine which measures are most strongly correlated with high levels of student achievement. The MET project’s

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York State Learning Standards tests, <http://schools.nyc.gov/Accountability/resources/testing/default.htm>; Pittsburgh: Pennsylvania System of School Assessment (PSSA), [http://www.portal.state.pa.us/portal/server.pt/community/pennsylvania\\_system\\_of\\_school\\_assessment\\_\(pssa\)/8757](http://www.portal.state.pa.us/portal/server.pt/community/pennsylvania_system_of_school_assessment_(pssa)/8757).

final findings will be shared broadly at the project's conclusion in winter 2011-2012.

For more information about the MET project, please visit [www.METproject.org](http://www.METproject.org) or send an email to [info@METproject.org](mailto:info@METproject.org).

**Note:** The inclusion of a given research protocol, tool or rubric in the MET project is not an endorsement by either the MET project or its partners of that protocol, tool or rubric. In many cases, the research instruments included in the MET project are still being tested and do not yet have verified results associated with them. Other protocols, tools and rubrics similar or equivalent to those used in the MET project may exist.

In addition, selection of a given academic, non-profit or for-profit organization to participate in the MET project does not constitute an endorsement by the MET project of that organization. Other organizations may exist who do work that is similar or equivalent to the work done by the organizations participating in the MET project.