

Classroom Observations 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 attending¹—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 classroom observations and teacher reflections factor into the MET project.

About Classroom Observations and Teacher Reflections²

A teacher's classroom instruction style is perhaps one of the most important and least well-understood factors contributing to teacher effectiveness. In order to collect and analyze data about the instruction style of each teacher participating in the MET project, in both years of the study, independent researchers will videotape four classroom lessons, at least

¹ 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>

² The videotaped lessons used in the MET project research are strictly confidential and, for the purposes of the MET project research, will only be accessed by the project's researchers and by the teacher who has been videotaped. The videos captured for the project will not be available for viewing by superintendents, principals, other teachers or district officials.

two of which will be scheduled to capture core areas of a specific subject (for example, adding and subtracting fractions and multi-digit multiplication and division for elementary school math courses). Videotaping the classes rather than sending observers directly into the classroom allows the observations to be performed efficiently and at a large scale and captures a more relaxed, natural environment for the teacher participating in the observation.

Videos are captured using a special camera rig engineered by Teachscape, an education consultancy. The camera rig uses a panoramic digital video camera that is set up and operated by the teacher after minimal training. After class, participating teachers upload video lessons to a secure Internet site and also provide written commentary and relevant supporting materials to give context around the videotaped lessons and to share their personal reflections. The videos are then watched and coded by an independent rater from a pool of observers, many of whom are teachers who teach subjects similar to those taught in the lessons they are assigned to watch and who were recruited by organizations including the National Board for Professional Teaching Standards (NBPTS). The expert raters are managed and trained by the Educational Testing Service (ETS) to observe and rate characteristics ranging from the teacher's ability to establish a positive learning climate and manage the classroom to his or her ability to explain concepts and provide useful feedback to students.

ETS is training approximately 500 expert raters to score the more than 23,000 hours of videotaped lessons captured over both years of the study using general observation protocols (Danielson's Framework for Teaching and the Classroom Assessment Scoring System (CLASS) measure from the University of Virginia) plus one of the following content-specific observation protocols: the Mathematical Quality of Instruction (MQI) protocol from the University of Michigan/Harvard, the Protocol for Language Arts Teaching Observations (PLATO) from Stanford University, or a new instrument for assessing science instruction, Quality Science Teaching (QST), also from Stanford University. Subsets of the videos are scored using an observational protocol developed by the National Board of Professional Teaching Standards (NBPTS) and the National Math and Science Initiative (NMSI). The observational protocol scores from each classroom will be compared against that classroom's average year-over-year student improvement on a standardized assessment and on a

supplemental assessment to determine how closely correlated the observation scores are with gains in student achievement. (See www.metproject.org for more information on this process.)

More information about each of the observational protocols employed as part of the classroom observations research component is available at www.metproject.org.

The method of video capture designed for the MET project holds great promise for teacher evaluation and professional development. As the MET project progresses, project leaders will share a report that details how to set up low-cost, good-quality video capture devices, storage capacity and retrieval software to replicate the process. Ultimately, the hope is that the use of digital video by teachers and schools will make it possible to have multiple professionals evaluate a single lesson, thereby making ratings more objective and useful for professional growth and evaluation. In addition, teachers will be able to use the videos for self-reflection and to garner feedback from peers. A library of videotaped lessons would also make it easier to share the work of exemplary teachers.

About Educational Testing Service

Educational Testing Service (ETS) is a nonprofit whose mission is to advance quality and equity in education for people worldwide through creating assessments and conducting educational research, analysis and policy studies. ETS leveraged its expertise in educational assessments and theory to manage and train the experts who are viewing and rating the videotaped lessons using the five observational protocols and rubrics. For more information about ETS and its role in the MET project, contact RDweb@ets.org.

About Teachscape

Teachscape uniquely combines innovative technology, engaging content and expert services to develop great teachers. From our Classroom Walkthrough technology to our powerful web-based content delivery platform to our online masters programs, Teachscape's award-winning products and services have been inspired by our dedication to sparking transformative change in teaching practice. Since 1999, we have worked with schools and school districts, charter networks, archdioceses, universities and state education departments to measurably and continuously improve the

effectiveness of teachers and instructional leaders to produce gains in student achievement. Teachscape's partners include the Bill & Melinda Gates Foundation, Stanford University, the Carnegie Foundation for the Advancement of Teaching and Charlotte Danielson. Our partners help shape our vision, our products and our strategies. For more information, visit Teachscape at www.teachscape.com.

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 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 or send an email to 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.