MET project

BILL & MELINDA GATES foundation

The CLASS Protocol for Classroom Observations

Overview of Classroom Observation Protocols

A teacher's classroom instructional practice is perhaps one of the most important[1] yet least understood factors contributing to teacher effectiveness. The method of video capture and review designed for the Measures of Effective Teaching (MET) project seeks to demystify effective teaching practices in the classroom and, in turn, provide insights into teacher evaluation and professional development.

The video footage recorded during the MET project is watched and coded by highly trained, independent raters. Many of the raters are current or former teachers, some with National Board Certification in subjects they are assigned to watch. These raters are managed and trained by the Educational Testing Service (ETS) to observe the videos and rate the teaching practice on a series of indicators 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 experts to rate more than 23,000 hours of videotaped lessons using one or more of the following observation protocols:

1. The Classroom Assessment Scoring System (CLASS) measure developed at the University of Virginia
2. The Framework for Teaching (FFT) developed by Charlotte Danielson
3. The Mathematical Quality of Instruction (MQI) developed at the University of Michigan and Harvard University
4. The Protocol for Language Arts Teaching Observation (PLATO) developed at Stanford University
5. The Quality Science Teaching (QST) developed at Stanford University

A subset of the videos is also rated using an observational protocol developed by the National Board of Professional Teaching Standards (NBPTS) and the National Math and Science Initiative (NMSI).

The scores on the observational protocols will be compared against value-added measures for both the statewide standardized assessment and on supplemental assessments. These analyses will establish how closely the observation scores (both overall and domain-level) correlate with improvements in student achievement. (See www.METproject.org for more information about this process.)

About the CLASS Method for Evaluating Classroom Observation

The Classroom Assessment Scoring System (CLASS) is an observational protocol based on years of educational and developmental research demonstrating that daily interactions between teachers and students are central to students'

[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

academic and social development. CLASS was developed over the past 10 years by Bob Pianta and his colleagues at the National Institute of Child Health and Human Development Early Child Care Research Network, the National Center for Early Development and Learning, and the Center for Advanced Study of Teaching and Learning. CLASS is one of two observational protocols used in the MET project to rate the videotaped lessons of both Math and English Language Arts (ELA) lessons across all of the grade levels included in the project (the other is Charlotte Danielson's Framework for Teaching [FFT]).

In its early stages, Pianta's and his team's research focused on the development of standardized observational systems for use in early-childhood classrooms (pre-Kindergarten through fifth grades). Pianta and his colleagues have since refined the observation to create the present-day CLASS, which measures effective teacher-student interactions in pre-Kindergarten through 12th grade in a way that is sensitive to important developmental and contextual shifts that occur as students mature. The CLASS is also aligned with a set of professional development supports that enable teachers to make positive changes in the areas of their practice with which they struggle.

The CLASS provides a reliable, valid assessment of three broad domains of effective teacher-student interactions that characterize students' experiences in school. Research findings from over 4,000 classrooms demonstrate that students in classrooms with higher CLASS ratings realize greater gains in social skill and academic development than students in classrooms with lower CLASS ratings.

CLASS Domains, Dimensions and Indicators

CLASS assesses the extent to which teachers effectively support children's social and academic development. CLASS is organized to assess three broad **domains** of interactions among teachers and children. Each domain includes several **dimensions**, some which vary by grade level. Each dimension is in turn defined by observable **indicators**. For example, within the domain of *Emotional Support*, the dimension *Teacher Sensitivity* consists of several observable indicators including *Awareness, Responsiveness* and *Student Comfort*.

Domain 1: Emotional Support

Pre-K and Lower Elementary

- Positive Climate, Negative Climate, Teacher Sensitivity, Regard for Student Perspectives

Upper Elementary and Secondary

- Positive Climate, Negative Climate, Teacher Sensitivity, Regard for Adolescent Perspectives

Domain 2: Classroom Organization

Pre-K and Lower Elementary

- Behavior Management, Productivity, Instructional Learning Formats

Upper Elementary and Secondary

- Behavior Management, Productivity, Instructional Learning Formats

Domain 3: Instructional Support

Pre-K and Lower Elementary

- Concept Development, Quality of Feedback, Language Modeling

Upper Elementary and Secondary

- Content Understanding, Analysis and Problem Solving, Quality of Feedback, Instructional Dialogue

Across grade levels, the CLASS focuses on the effectiveness of classroom interactional *processes* rather than on the *content* of the physical environment, materials or curriculum.

Observation Process

To assess a teacher using the CLASS, independent MET project observers, who have been trained and certified on the CLASS protocol, view the four videotaped lessons for each teacher, record observations and assign numerical codes related to each of the CLASS dimensions. Observers typically watch a lesson for 15 minutes, taking notes on the specific behaviors they observe related to each of the CLASS dimensions. Scoring is completed at the dimension level using a 7-point scale, with the low range being a score of 1-2, the middle range 3-5, and the high range 6-7. The CLASS

manual provides detailed information to help observers determine the specific score.

The observer then watches the next 15 minutes and scores each of the dimensions again, repeating this cycle of observation and scoring until the end of the lesson. Lesson scores are created by averaging scores across all 15-minute cycles, and scores for teachers are averaged across lessons. Research has demonstrated that this type of scoring protocol provides relatively stable estimates of teacher effectiveness.

The final CLASS scores provide a snapshot of the classroom interactions that are working well along with areas that could be improved by growth and professional development.

For More Information

Bob Pianta and colleagues recently formed a non-profit organization, Teachstone, to facilitate the effective use of the CLASS in classrooms across the country.

For more information on the CLASS, its history or its developers, see Teachstone's website (www.teachstone.org).

About the MET Project

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[2]—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 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 and represents a real opportunity for teachers to inform the national discussion on education reform.

The 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'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 or tool in the MET project is not an endorsement by either the MET project or its partners of that protocol or tool. In many cases, the research instruments included in the MET project are still

[2] 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

being tested and do not yet have verified results associated with them. Other protocols and tools similar or equivalent to those used in the MET project may exist.