A System of Measures to Guide Practice Improvement: The Building a Teaching Effectiveness Network Case
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Measurement is an essential component of the work of quality improvement. The resultant data provide practitioners with critical information to analyze their system’s processes, understand and address variability in performance, test if the process changes they are making are, in fact, improvements, and guide efforts to bring these improvements to scale. These data necessarily come from a system of measures – not from any one single measure. This presentation describes the measurement system that was designed for and used in the Building a Teaching Effectiveness Network (BTEN), a network of schools and districts brought together by The Carnegie Foundation for the Advancement of Teaching, from 2011 to 2014. BTEN focused on improving systems of development and support for early career teachers in two urban school districts using methods of improvement science.

Measurement in U.S. education is overly focused on what are often called "summative" measures, such as students' test results, graduation rates, and teacher effectiveness ratings. Such lagging measures are important for improvement team members who require the baseline results of their system to reasonably set aims and track their progress towards these aims. But such measures are often too infrequent and too late to inform day-to-day improvement efforts on the ground.

We relied on tenets of measurement systems used in improvement science to develop a set of practical measures that dynamically inform the BTEN improvement work. Measures that are useful for practice improvement necessarily include those that are tied to the processes that are being improved, and provide the connective tissue of logic between the processes and the ultimate outcomes of interest.

Three sets of measures in BTEN served these purposes.

1. Process measures that capture how a process is enacted on a day-to-day basis. Because BTEN determined that the frequency of feedback was important for new teachers – with feedback ideally occurring once every 2 weeks – one process measure was a weekly count of the number of teachers waiting more than 2 weeks to receive feedback on their practice.

2. Proximal-outcome measures that provide information about the immediate outcomes of the process under improvement. For example, BTEN improvement teams collected data about new teachers' perceptions of the value of the feedback. They were thus able to see if the changes they were making to the feedback process resulted in positive experiences for the new teachers.

3. Leading outcome indicators that enable improvement teams to gain insight about the ultimate aim on a more regular basis. By capturing information about teachers' sense of engagement with their work and sense of burnout, BTEN improvement teams were able to take a regular "pulse check" about the extent to which new teachers were on a path to effective growth, development, and retention.

This presentation will utilize the BTEN case to illustrate key principles of developing a system of measures to support practice improvement in education. It will illustrate these principles as they were invoked throughout the development, refinement, and use of the elements of a practical measurement system.