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New Assessments, Better Instruction?

Designing Assessment Systems to Promote Instructional Improvement

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Summary

The Hewlett Foundation is committed to promoting “deeper learning” for America’s students—learning that prepares students to master core academic content, think critically and solve complex problems, work collaboratively, communicate effectively, develop positive habits of mind, and learn how to learn—and it recognizes that assessment can play a key role in this effort. The Foundation’s view of deeper learning is consistent with many other organizations’ calls to expand and enrich the expectations we hold for students, including calls for teaching 21st century skills and international competence (Saavedra and Opfer, 2012) and the recent adoption by more than 40 states of the Common Core State Standards (CCSS). The Foundation has expressed interest in exploring factors that might promote high-quality instruction in response to the new standards, and in particular the role that new, CCSS-aligned assessments might play in improving instructional quality. The Foundation commissioned RAND to review research about the effects of assessment and to summarize what is known about assessment as a lever for reform. One of the primary goals of this work is to understand how new assessments that are aligned with the CCSS and that attempt to measure higher-order skills and processes might be expected to influence instruction. This exploration had two central questions:

- What does research tell us about the influence of testing on instructional practice, and what are the implications of this research for predicting the likely impact of new, CCSS-aligned assessments?
- What conditions could be put in place to promote a positive impact of assessments on instruction and, ultimately, deeper learning?

To explore the likely influence of new CCSS-aligned assessments on teaching practice and the conditions that moderate that relationship, we conducted a series of literature reviews that focused on the following topics: (1) high-stakes testing in U.S. public education, (2) performance assessment in U.S. public education, (3) large-scale educational assessment in international settings, (4) formative assessment and teachers’ use of test results, (5) military and occupational testing, and (6) professional certification and licensure testing. In these reviews, we paid particular attention to assessment’s role in promoting instructional change as well as the external conditions that might hinder or enable such change. We did not limit the search to research on assessments that measure higher-order skills or processes (although these skills are often the focus in the literature on performance assessment) but included assessments of any academic, occupational, or professional achievement.

We found considerable research on the effects of testing in U.S. schools, including studies of high-stakes testing, performance assessment, and formative assessment. Studies of international assessment, military and occupational testing, and professional certification and licensure yielded fewer relevant findings. The studies suggest a wide variety of effects that testing might have on

teachers' and students' activities in the classroom, including changes in curriculum content and emphasis, allocation of time and resources across different pedagogical activities, and teacher-student interactions. At the same time, extensive variability in how educators responded to tests, which we observed both across different studies as well as within individual studies, suggests that responses depend on the characteristics of teachers as well as on the contexts in which they work.

Much of the research on testing has occurred in the context of accountability, where there are important consequences associated with test results and hence the tests have high stakes. Much of the research shows that educators respond to high-stakes assessments differently than to lower-stakes assessments (Firestone, Mayrowetz, and Fairman, 1998; Pedulla et al., 2003). Therefore, the stakes that are attached to test performance clearly represent an important mediating factor of a test's effects on instructional practice. The literature also identifies a number of other conditions that affect the impact that assessment may have on practice. These include:

- attributes of the tests, such as their purposes, technical quality, and format
- background, beliefs and knowledge of teachers and administrators, including their domain knowledge, familiarity with the assessment, beliefs about teaching and learning, and endorsement of the assessment
- characteristics of the school and students, such as grade configuration and demographics
- district/school policies including those related to professional development, teacher collaboration, and curriculum.

Specifically, tests of deeper learning are likely to promote desirable changes in practice under the following circumstances:

- Test content and format should mirror high-quality instruction.
- Tests should be used only for purposes for which they were designed and validated.
- Score reporting should be optimized to foster instructional improvement.
- Teachers should receive training and support to interpret and use test scores effectively.
- The test scores should “matter,” but important consequences should not follow directly from test scores alone.
- If there are externally mandated, high-stakes tests, they should be part of an integrated assessment system that includes formative and summative components.
- Accountability metrics should value growth in achievement, not just status, and should be sensitive to change at all levels of student performance, not just a single cut point.
- Assessment should be one component of a broader systemic reform effort.

By themselves, tests of deeper learning are likely to have some impact on classroom instruction. However, research suggests that the benefits of tests will be enhanced by policies ensuring that the tests have features to make them helpful for instructional improvement, are accompanied by specific supports to help teachers increase their relevant knowledge and skills and modify their practices, and are part of a larger, systemic change effort.