



Center for  
K–12 Assessment  
& Performance Management

*An independent catalyst and resource for the improvement of  
measurement and data systems to enhance student achievement.*

## Exploratory Seminar:

Measurement Challenges Within  
the Race to the Top Agenda

December 2009

# NEW OPPORTUNITIES AND OLD CHALLENGES IN MEASURING GROWTH AND INFORMING INSTRUCTION

**Pascal Forgione, Jr., and Nancy Doorey**

**Center for K – 12 Assessment & Performance Management at  
Educational Testing Service**

**This introduction summarizes presentations and research papers developed by 17 leading national experts and practitioners for an exploratory seminar on the measurement challenges within the Race to the Top agenda. The seminar was designed and organized by Dr. Pascal (Pat) Forgione, Jr., and Nancy Doorey, who lead the work of the Center for K-12 Assessment and Performance Management (K-12 Center) at Educational Testing Service (ETS). To download the research papers presented at the seminar, the commentaries on the presentations, and policy briefs about the seminar sessions, please see <http://www.k12center.org/publications.html>.**

The K-12 Center, established in August 2009, is an independent catalyst and resource for the improvement of methodologies, technologies, policies, and practices in K-12 assessment and data systems. Under the leadership of Forgione, the K-12 Center strives to improve the fairness, quality, usefulness, accuracy, and timeliness of assessment and performance management data of and for student learning. Its initial focus is on stimulating powerful new assessment and data system designs that will provide strong support for improving teaching and learning.

The December 2009 Exploratory Seminar in Princeton, NJ, brought together leading national experts in measurement, growth analysis, learning progressions, and assessment development and selected state and local practitioners to pursue aggressively powerful ideas about next generation assessment system designs.

## Framing the Challenges

Under No Child Left Behind, states have struggled to allocate sufficient resources to support their standards and assessments. Two recent developments—the Common Core Standards initiative of the states and the allocation of \$350 million of the Race to the Top funds for assessments aligned to those

*Created by Educational Testing Service (ETS) to forward a larger social mission, the Center for K–12 Assessment & Performance Management has been given the directive to serve as an independent catalyst and resource for the improvement of measurement and data systems to enhance student achievement.*

Copyright © 2010 by Educational Testing Service. All rights reserved. ETS is a registered trademark of Educational Testing Service (ETS).

standards—represent breakthrough opportunities for major advances in the assessment field to support quality education. The authors of these timely and critical research papers accepted two assumptions:

- The Common Core Standards will be adopted by a majority of states, creating a welcome focus on the core skills and knowledge all students must acquire; and
- The unprecedented Race to the Top funding will be leveraged to develop high-quality, high-utility assessment systems.

## Defining the Challenges

The K-12 Center sees this new investment from the federal government as a critical window of opportunity for both our public schools and the testing industry. Now is the time to engage leading measurement experts in examining the pressing data needs from the field and the challenges presented by the Race to the Top agenda. The initial focus of the K-12 Center is on two long-standing and knotty measurement issues confronting national and state education reforms:

1. **Measuring student growth:** Summative assessments, optimally combined with interim and other assessment data, that provide a measure of individual student learning gains based on challenging college- and career-ready knowledge and skills, and
2. **Informing instruction:** Formative/interim assessment systems that provide rapid results to teachers and administrators with sufficient detail to inform decisions on current lessons, instruction, and related supports.

## Core Research Questions

Student achievement aligned to college and career readiness is clearly the ultimate measure of K-12 organizational performance, and student learning gains are the primary leading indicator. This will require improved measurement of student growth and improved formative/interim assessment systems to inform instruction.

The forthcoming competitive federal assessment grants will accentuate the need for and create the opportunity to develop high-quality, defensible, and useful measures of student learning gains. These will form the basis for the next generation assessment and data systems. There is a clear assumption within the Race to the Top design from the U.S. Department of Education that student gains can be measured with sufficient accuracy to support their use in determining the effectiveness of various instructional intervention strategies and teacher preparation and development programs, as well as the effectiveness of individual teachers. The Race to the Top Notice of Proposed Priorities defined student growth as:

....the change in achievement data for an individual student between two points in time. Growth may be measured by a variety of approaches, but any approach used must be statistically rigorous and based on student achievement (as defined in this notice) data, and may

also include other measures of student learning in order to increase the construct validity and generalizability of the information. (Race to the Top, 2009, pp. 37812-37813)

## **Papers on Measuring Growth**

Six of the research papers commissioned by the K-12 Center explore and synthesize the current state of the field, the challenges, and the most powerful future approaches to measuring student growth and productivity in education. In addition, five measurement and practitioner experts provide reactions to the proposals and ideas presented.

The papers and commentaries address three central questions:

- How can and should we measure student growth? In other words, what are the measurement issues and what are best practices? What are specific recommendations for the development of assessment systems funded by Race to the Top?
- How can and should we use student growth data in productivity analyses? What are the current challenges and promising future approaches?
- What are the policy issues involved in the measurement and use of student gains, especially in the context of high-stakes education accountability?

## **Papers on Informing Instruction**

Three research papers also commissioned by the K-12 Center focus on a parallel measurement challenge, the development of formative/interim assessments that yield more timely and instructionally useful information about each student. The Race to the Top Notice of Proposed Priorities calls for states to use interim assessment systems that generate data containing sufficient diagnostic detail quickly enough to inform current instruction. In addition, data may be used in computing student learning gains for evaluation and accountability purposes.

Three leading assessment experts were asked to describe the strongest current approaches, the challenges or limitations, and their personal view of how the Race to the Top assessment funds can best be utilized to bring about the next generation of improved formative/interim assessment systems. Additionally, three practitioner experts provide reactions on the proposals and ideas.

Two central questions guided the papers on designing high-quality instructional guidance systems and articulating them to accountability systems:

- What are the characteristics of high-quality instructional guidance assessment systems? What are the new, innovative models that should be recommended to states? How might these be articulated within an accountability system?
- What is the future role of performance tasks relative to instructional guidance assessment systems and accountability systems? How might these operate within accountability systems?

## **For More Information**

Copies of the December 2009 Exploratory Seminar papers and commentaries, as well as policy briefs<sup>1</sup> summarizing the presentations and participant discussions, are available for download. See the K-12 Center website at <http://www.k12center.org/publications.html>.

---

<sup>1</sup> Policy briefs were prepared by Ms. Anne Lewis, with the assistance of Dr. Martin Orland and Center staff. We thank Andy Latham, Kim Fryer, Jazzme Blackwell, and Sharon Saldaña for their contributions.