

Making Sense of Educational Assessment: Bridging Research and Practice—Webinar Summary

About the Webinar

This webinar explored the different purposes, types, and uses of educational assessment, with a specific focus on considerations for assessing learning while implementing innovative educational approaches. National assessment researchers and practitioners from the Northeast & Islands region shared educational assessment examples and answered participants' questions. This webinar builds upon a recently published REL Northeast & Islands fact sheet, [Making Sense of Educational Assessment](#).

Presenters and Panelists

- Dr. Christopher Brandt, Center for Assessment
- Dr. William Penuel, University of Colorado Boulder
- Dr. Pamela Buffington, REL Northeast & Islands
- Diana Wogan, REL Northeast & Islands
- Katie West & Brooke Teller, Portland Public Schools
- Katie Coppens, Falmouth Public Schools
- Sarah Timm, Maine School Administrative District 17
- Gen Doughty, Maine Indian Education

Key Takeaways

Part I: Definitions and Considerations for Educational Assessment

- In Part I of this webinar, Dr. Brandt discussed definitions and considerations for educational assessment. “**Educational innovation** can be defined as any adaptation that enhances or improves students’ learning. Innovation in education involves a constant and intentional transformation of vision and actions to improve the components, actors, structure, and management of education. Innovation is the heartbeat of educational fact and educational science.”¹
- **Continuous improvement** is a systematic process that uses iterative improvement cycles to establish evidence of effectiveness over time and improve the capacity of an organization to learn how to improve. Three key questions for continuous improvement include: (1) What specifically are we trying to accomplish? (2) What changes might we introduce and why? (3) How will we know that a change is an improvement?
- The continuous improvement process can be broken down into two approaches: (1) **formative evaluation**, which produces feedback to support iterations of distinct program components through quick cycles of plan, do, study, act, and (2) **summative evaluation**, which produces evidence of a program’s effectiveness over time—from program design and piloting to program expansion and implementing to scale. The formative evaluation process should be integrated and embedded into each phase of the summative evaluation process, and it should support and inform the summative evaluation.
- A **theory of action** is often expressed in a series of if-then statements that specify relationships between improvement strategies and their expected outputs and outcomes (e.g., if we provide students with trained and certified teachers, then student engagement should improve and that, in turn, should improve achievement).

“The assessments or the measures you use should stem from the theory of action and logic model. . . as opposed to trying to retrofit data and information that might already be available, and the district might already be collecting.”

—Dr. Christopher Brant [11:59]

A **logic model** unpacks the theory of action further and is essential for any evaluation by showing the logical links between resources, activities, outputs, and outcomes. The **implementation plan** identifies the actionable components based on the logic model.

- Once the theory of action and logic model have been defined, data sources can be identified to understand which components of the program are working and which are not, and to monitor variations in program implementation and outcomes for different schools and groups of students.

“As a team develops its theory of action, it’s essential to ask where are things likely to fail, why are they likely to fail, what efforts and resources are we going to put in place to make sure that those assumptions hold?”

Answers to those questions inform the program design process . . .”

–Dr. Christopher Brant [10:42]

Part II: Designing Assessments Within an Innovation Context: Connecting to Student Interest

- In Part II of this webinar, Dr. Penuel discussed a specific innovation focused on helping rural teachers design assessment tasks that connect to students’ interests and identities.
- Assessments are challenging to design and use, and teachers often do not have access to sustained, high-quality, professional learning opportunities to support shifts in assessment practices. In response to this need, Dr. Penuel and his research team designed and tested the impact of an online course to build teachers’ capacity to design assessment tasks.² This study focused on teachers in rural communities and investigated the extent to which the course impacted teachers’ assessment practices.
- Teachers were presented with a five-dimensional science framework during the course. Participating teachers selected a science unit to develop or modify an existing assessment to align it with the framework. Teachers participating in the course outperformed the comparison group in each category measured.

“The interests, experiences, and identities of rural students are assets for educators to build on and researchers to learn from.

Students in rural areas can have a strong attachment to place that can motivate participation in STEM and support involvement in community improvement initiatives.”

–Dr. William Penuel [23:09]

Part III: Assessment in Innovation Pilots

- The Rethinking Responsive Education Ventures (RREV) project was funded by a \$16.9 million award to the Maine Department of Education from the U.S. Department of Education. RREV offers innovative solutions to persistent problems of practice in Maine. During the last part of the webinar, educators from districts in Maine presented four innovation pilots developed through the RREV grant, including:
 - Portland Public Schools’ efforts to embed outdoor experiential learning into their core curriculum
 - Falmouth Public Schools’ Navigator Program, People & Places in Presumpscot unit
 - Maine School Administrative District 17 in Oxford Hills’ Teaching Outside: The Box!
 - Maine Indian Education’s Flexible Pathway and Connection to Culture program
- Across the four districts, educators described multiple formative and summative assessment examples used within their innovation pilots, including surveys, interviews, student field journals, pre/post word clouds, behavior observations, student self-assessments, and story-telling artifacts.

¹ Ramirez-Montoya, M. S. (2020). Challenges for open education with educational innovation: A systematic literature review. *Sustainability*, 12(17): 7053.

² Lo, A. S., Penuel, W. R., & Wingert, K. (2022). Supporting teachers in designing assessments aligned to the vision of the framework: Findings from two design studies [Conference Paper]. 2022 Annual Meeting of the American Educational Research Association, San Diego, CA. <https://www.5dassessment.org/research>