Today’s webinar will begin shortly.

REMINDERS:

- Dial 800-503-2899 and enter the passcode 6496612# to hear the audio portion of the presentation
- Download today’s materials from the sign-in page:
  - Webinar Series Part 9 PowerPoint slides
Sustainability

Webinar Series Part 9
<table>
<thead>
<tr>
<th>#</th>
<th>Title</th>
<th>Date</th>
<th>Length</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction: DDMs and Assessment Literacy</td>
<td>3/14</td>
<td>60 minutes</td>
<td>4-5pm</td>
</tr>
<tr>
<td>2</td>
<td>Basics of Assessment</td>
<td>4/4</td>
<td>90 minutes</td>
<td>4-5:30pm</td>
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<tr>
<td>3</td>
<td>Assessment Options</td>
<td>4/25</td>
<td>60 minutes</td>
<td>4-5pm</td>
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<tr>
<td></td>
<td>TA and Networking Session I</td>
<td>7/11</td>
<td>3 hours</td>
<td>9am-12pm</td>
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<tr>
<td>4</td>
<td>Determining the Best Approach to DDMs</td>
<td>7/18</td>
<td>60 minutes</td>
<td>4-5pm</td>
</tr>
<tr>
<td>5</td>
<td>Measuring Student Growth and Piloting DDMs</td>
<td>8/15</td>
<td>60 minutes</td>
<td>4-5pm</td>
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<tr>
<td></td>
<td>TA and Networking Session II</td>
<td>9/19</td>
<td>3 hours</td>
<td>2:30pm-5:30pm</td>
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<td>6</td>
<td>Integrating Assessments into Educator: Developing Business Rules and Engaging Staff</td>
<td>10/24</td>
<td>60 minutes</td>
<td>4-5pm</td>
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<tr>
<td>7</td>
<td>Ramping up for Next Year: Strategies for Using Current Assessments in DDMs.</td>
<td>12/5</td>
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<td>4-5pm</td>
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<tr>
<td></td>
<td>TA and Networking Session III</td>
<td>12/12</td>
<td>3 hours</td>
<td>2:30pm-5:30pm</td>
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<tr>
<td>8</td>
<td>Communicating Results</td>
<td>1/23</td>
<td>60 minutes</td>
<td>4-5pm</td>
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<td>9</td>
<td><strong>Sustainability</strong></td>
<td>2/27</td>
<td>60 minutes</td>
<td>4-5pm</td>
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</table>
Audience & Purpose

★ Target audience
★ District teams that will be engaged in the work of identifying, selecting, and piloting District-Determined Measures.

★ After today participants will understand:
★ The cycle of continuous improvement.
★ Strategies to support sustainable use and improvement of District-determined measures.
Sustainability

Engaging in a Cycle of Continuous Improvement is paramount to sustaining the utility of DDMs.
Continuous Improvement

- Investigating Fairness Brief
- Technical Guide A
- Webinar 6
- Focus of Today’s Webinar 9

- Scoring and Parameter Setting Brief
- Webinar 8

Review/Modify DDMs

Select DDMs

Administer DDMs

Collect Results

Share Feedback with Educators

Cycle of Continuous Improvement

- Technical Guide B
- Using Current Assessments in DDMs
- Using SGPs Brief
- Webinar’s 1-5, 7

- Office Hours
- TA and Networking Sessions

- Office Hours
Continuous Improvement

Cycle of Continuous Improvement

Select DDMs

Review/Modify DDMs

Administer DDMs

Collect Results

Share Feedback with Educators
DDM Implementation Plan – June 1, 2014

Student Impact Rating
District DDM Implementation Plan - June 2014

By June 1, 2014 all districts and Race to the Top charter schools must submit the list of District-Determined Measures (DDMs) that will be implemented during the 2014-15 school year.

| District Name: |
| District DDM Contact: |
| Email Address: |
| DDM Implementation Readiness: |
| Has the district reached a ratified contract agreement with respect to DDMs and Student Impact Ratings? |
| Extension Requests: Districts may request a one-year extension of the time to implement DDMs for specific grades/subjects or courses for which DDMs have not yet been identified. Please click on the blue Extension Request tab below to fill out the Extension Request form.

Instructions: Complete the tables in the tabs below labeled Teachers, CVTE Teachers, SSPIs, and Administrators to indicate the DDMs your district will be implementing during the 2014-15 school year. Each unique DDM should be entered only once, even if multiple groups of educators will be using a single DDM. Enter only one DDM per row. Educators’ names are not to be entered in this plan. If your district does not employ CVTE teachers, leave that tab blank. As a reminder, all educators working in positions that require ESE licenses must be matched with at least two measures of student learning, growth, or achievement. Completed plans must be emailed to EducatorEvaluation@doe.mass.edu no later than June 1, 2014.

Please note: a red marker in the upper-right corner of a cell signals additional instructions for completing the template. Move your cursor over the cell to see these instructions.
Continuous Improvement

Cycle of Continuous Improvement

1. Select DDMs
2. Administer DDMs
3. Collect Results
4. Share Feedback with Educators
5. Review/Modify DDMs
Administering DDMs & Collecting Results

Guest Speaker Kristan Rodriquez
Continuous Improvement

- Select DDMs
- Administer DDMs
- Collect Results
- Share Feedback with Educators
- Review/Modify DDMs

Cycle of Continuous Improvement
Continuous Improvement

Cycle of Continuous Improvement

1. Administer DDMs
2. Collect Results
3. Share Feedback with Educators
4. Review/Modify DDMs
5. Select DDMs
Reviewing/Modifying DDMs

When reviewing a DDM consider whether the measure:

- Supports district priorities
- Increases assessment literacy
- Provides formative feedback to educators about their practice
- Fosters collaboration between educators
Supporting District Priorities

- Increasing Assessment Literacy
- Providing Formative Feedback About Practice
- Fostering Collaboration Between Educators
District Priorities

- Shifts in Curriculum and/or Frameworks
- District Improvement Plans
- School Priorities (e.g. STEM school)
Example: Curriculum Shifts

★ How do we assess a student’s ability to demonstrate the Science and Engineering practices outlined in the new science standards?

★ One Potential Way: Measure the number of scientific questions students asked during labs.

Draft Revised Science and Technology/Engineering Standards: http://www.doe.mass.edu/stem/review.html
Does this measure further district priorities?

**Measure:** the number of scientific questions students asked during labs.

**Problematic Findings:**
- The measure advantaged more talkative students
- Quieter students, even those with good ideas, tended to score low.
- The measure was time consuming to track because student questions are a low-frequency behavior
- It proved hard to be systematic
Does this measure further district priorities?

★ **Conclusion:** No

★ **Next Steps:** Improve or Replace

- Improve fairness by ensuring that all students can demonstrate growth (no systematic bias against quieter students)

- Improve feasibility by developing procedures that are easier to implement systematically.

- Replace with a measure that better assesses scientific practices

- Consider findings when using the measure to inform an educator’s Student Impact Rating
Improved Measure

★ Students write a response to a prompt at the beginning and at the end of the year.

★ Example Prompt:

When we placed a cup over small plant, and measured the concentration of gasses, we got the following graph. Interpret the graph. What do you think explains these results. How could you test your theory?
Advantages of Improved Measure

- Is not biased against quieter students
- Is more feasible (e.g., scoring can take place outside of class)
- Is more systematic (all students complete the task at the same time)
- Allows a closer look at the type of questions getting asked
- **Furthers district priority** by providing better information about student learning around the scientific practice of asking questions.
Operationalization

★ We improved the measure by changing how we approached collecting data.

★ Operationalization is the term for the process we use to measure a construct.

★ Example: How tall is my friend?

1. Place a measuring tape next to my friend and read the number next to the line that is closest to the top of his or her head.

2. Stand next to my friend and estimate how much taller or shorter they are compared to myself.

3. Place a ruler flat on my friend’s head and mark a line on a wall where the ruler hits the wall. Then measure how far the line is off the ground.
Supporting District Priorities

Increasing Assessment Literacy

Providing Formative Feedback About Practice
Fostering Collaboration Between Educators
Increase Assessment Literacy

⭐ Identifying key content (often common content)

⭐ Measuring Growth

⭐ Ceiling & Floor Effects
⭐ Lack of Variability on Pre and Post tests
⭐ Scale Consistency (Is one point of growth consistently difficult across the scale)

⭐ Improving Scoring Consistency

⭐ Scoring Guide Clarity
⭐ Rater Calibration
Supporting District Priorities
Increasing Assessment Literacy

Providing Formative Feedback About Practice
Fostering Collaboration Between Educators
Formative Feedback

★ DDMs should provide information to educators they can use to inform their practice

★ In what areas did students make strong gains? Weak gains? No gains?

★ What teaching strategies did I employ to teach the content my students mastered?

★ Where can I improve?
Formative Feedback

★ What type of questions did students struggle to answer correctly?

★ Item difficulty: percentage of awarded points compared to possible points (or percentage correct for right/wrong items)

★ Computing item difficulty
  ★ Add up all awarded points for all students
  ★ Divide by total possible points for all students
  ★ Answer should be decimal between 0 and 1.
## Example from MCAS

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<th>Item No.</th>
<th>Item Type</th>
<th>Tested Standard</th>
<th>Test Score</th>
<th>Average Item Score</th>
<th>Percentage of Student Responses</th>
<th>Correct MC</th>
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# Computing Item Difficulty

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<th>Question</th>
<th>Awarded</th>
<th>Possible</th>
<th>Difficulty</th>
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<tbody>
<tr>
<td>Q1 (1 point)</td>
<td>4</td>
<td>5</td>
<td>.8</td>
</tr>
<tr>
<td>Q2 (1 point)</td>
<td>2</td>
<td>5</td>
<td>.4</td>
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<tr>
<td>Q3 (4 points)</td>
<td>16</td>
<td>20</td>
<td>.8</td>
</tr>
<tr>
<td>Q4 (4 points)</td>
<td>12</td>
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<td>.6</td>
</tr>
</tbody>
</table>
Interpreting Item Difficulty

★ Very easy items (> .9)
   ★ Potentially little information gained
   ★ Prevents Floor Effects

★ Moderately Difficult items (.7-.9)

★ Hard items (.5-.7)

★ Very hard items (< .5)
   ★ Potentially frustrating to students
   ★ Important to have some items like this
   ★ Prevents Ceiling Effects
Interpreting Item Difficulty

- Did item difficulty match your expectation?
- Who missed easy questions? Who got very hard questions correct?
- Were questions in one area more difficult?
- Will work for rubric-based assessments too – not just multiple choice tests
- How did item difficulty change from the pre- to the post-test
Supporting District Priorities
Increasing Assessment Literacy
Providing Formative Feedback About Practice

Fostering Collaboration Between Educators
Meaningful Conversations

★ Does the DDM help different educators in the same role discuss issues of key content?

★ Does the DDM highlight areas of strengths between different educators?
Continuous Improvement

Cycle of Continuous Improvement

- Select DDMs
- Administer DDMs
- Collect Results
- Share Feedback with Educators
- Review/Modify DDMs
New Resources: Implementation Briefs

- Designed to provide targeted guidance focused on timely questions.

- Three briefs now available:
  - Scoring and Parameter Setting – Webinar 8
  - Using Student Growth Percentiles
  - Investigating Fairness – Webinar 6
New Resources: Office Hours

Please see our updated schedule for Office Hours at:

http://www.doe.mass.edu/edeval/ddm/office-hours.html

More Upcoming ….
Key Messages for Stakeholders

Four Key Messages about Student Impact Ratings

**Use Multiple Measures**
DDMs and SGP are part of comprehensive evaluation system

**Focus on Students**
The focus of measuring student impact is improving student learning.

**Build Capacity**
Developing DDMs builds knowledge about assessment and data use.

**Engage Educators**
Educators have expertise developing and evaluating assessments.
Stay Tuned

★ This completes our planned DDMs and Assessment Literacy Webinar Series

★ We will release additional DDM-related webinars as we continue to rollout the Implementation Brief series.

★ Thank you!
Questions

★ Contact
★ Craig Waterman at cwaterman@doe.mass.edu
★ Ron Noble at r noble@doe.mass.edu

★ Tell us how we did: