Rich Tasks for Real Kids
Aligning Assessment Practices to the Common Core State Standards

Urban District Leadership Networks Retreat
May 22, 2013
Hillsborough County, FL

Session Norms

- Minimize distractions
- Shorten your runway
- Be active & accountable learners
Session Goals

- To deepen our understanding of the purpose of assessment aligned to the Common Core State Standards (CCSS)
- To explore how assessment practices impact a student’s journey toward college and career readiness
- To consider the research on effective assessment practices
- To understand how assessment practices aligned to the CCSS can raise rigor and expectations for all students
- To consider how to leverage new opportunities to deepen CCSS-alignment across all aspects of assessment systems and within all classrooms

Food for Thought

“For a relatively low outlay, assessments could expose academic weaknesses and make it possible to pressure schools and teachers to improve. But, as long as that remains their primary purpose, assessments will never fully realize their potential to guide and inform teaching and learning. Accountability is not the problem. The problem is that other purposes of assessment, such as providing instructionally relevant feedback to teachers and students, get lost…”

Gordon Commission on the Future of Assessment in Education
“Public Policy Statement,” 2013, p. 7
Food for Thought

“A focus on standards and accountability that ignores the **processes of teaching and learning** in classrooms will not provide the direction that teachers need in their quest to improve.”

*Stigler and Hiebert, “Understanding and Improving Classroom Mathematics Instruction: An Overview of the TIMSS Video Study,” 1997*

Let’s talk about Miguel

Miguel begins kindergarten this year and will graduate from high school in 2026 and from college in 2030. What will Miguel’s world be like in 2030? We can’t know for sure, but a few things are certain:

- It’s likely that the career Miguel chooses doesn’t exist today.
- Advanced technology will be more central to Miguel’s life and that of his peers than for any previous generation in human history.
- Miguel’s generation will grapple with the impact of global challenges using understandings that have not yet been achieved and with technologies and solutions that have not yet been invented.
- The exponential pace of change means the world in which Miguel lives today will likely bear little resemblance to the world he will know in 2030.
Miguel and the CCSS

While school can't prepare Miguel for every challenge he will face in the future, a quality and inspired CCSS-aligned education can empower Miguel to:

- Demonstrate independence and self-directed learning
- Value evidence, reason logically, and think conceptually and abstractly
- Analyze and use data
- Comprehend as well as critique
- Construct and present viable arguments
- Use media and technology strategically
- Persevere in making sense of and solving problems
- Understand and appreciate different perspectives and cultures
- Develop the skills and dispositions necessary to the responsible exercise of citizenship in an advanced democratic republic

These capacities, developed in the context of a well-rounded education, will ensure that Miguel can engage with and contribute to the 21st-century world effectively and with purpose.

Miguel, the CCSS, and Assessment

Ensuring that Miguel – and all students – are able to acquire 21st-century knowledge, skills, and dispositions requires the development of an assessment system (diagnostic, formative, interim, summative) aligned to the CCSS that:

- Raises instructional rigor and empowers every student to become college and career ready.
- Develops deep content knowledge and literacy across the curriculum and deep mathematical understanding across topic areas.
- Focuses primarily on assessment for learning and thus provides timely and meaningful feedback, support, and the opportunities for practice and improvement that are necessary to master the CCSS.
- Integrates into the daily instructional experience of teachers and students, thereby enabling students to transfer and apply knowledge and skill to novel and complex challenges.
Table Talk

Take **three minutes** to discuss your thoughts to the following:

*How does your vision of a CCSS-aligned assessment system compare and contrast to current or past assessments practices in your district?*

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What does the CCSS say about assessment?

“While the Standards delineate specific expectations in reading, writing, speaking, listening, and language, each standard need not be a separate focus for instruction and assessment. **Often, several standards can be addressed by a single rich task**... This means that students can develop mutually reinforcing skills and exhibit mastery of standards... across a range of texts and classrooms.”

CCSS ELA & Literacy, p. 5

“Mathematical understanding and procedural skill are equally important, and both are **assessable using mathematical tasks of sufficient richness**.”

CCSS Math, p. 4

The CCSS ELA & Literacy standards also stress the following:

“The Standards insist that instruction in reading, writing, speaking, listening, and language be a **shared responsibility within the school**.”

CCSS ELA & Literacy, p. 4
What does the CCSS say about assessment?

From the CCSS, we can infer that assessment aligned to the CCSS:

- Should balance assessment of discrete standards with assessment of multiple standards within “rich tasks” or “tasks of sufficient richness.”
- Is a “shared responsibility,” which creates opportunity to ensure coherent instruction across subjects areas and topics.
- Is less about testing and more about the kind of instructional practice that supports student mastery of the CCSS.

Miguel, the CCSS, and Rich Tasks

While the CCSS do not offer guidance to Miguel’s teachers on how they should use an assessment system to develop his mastery of the standards or how to share responsibility for instruction, the CCSS do make clear what kind of assessment practice – balanced with assessment of discrete standards – should be at the instructional heart of his learning experience: assessment through rich tasks.
What are “rich tasks”?

Assessment through “rich tasks” or “tasks of sufficient richness” can drive focus and coherence in the daily instructional experience for teachers and students.

Rich tasks address multiple standards – sometimes across subject areas or topics – and can provide students worthwhile and cognitively challenging opportunities for feedback and deeper learning.

What does a rich task look like?

Illustrative Mathematics 7th-Grade Task: College Athletes

Below are the heights of the players on the University of Maryland women's basketball team for the 2012-2013 season and the heights of the players on the women's field hockey team for the 2012 season.

<table>
<thead>
<tr>
<th>Field Hockey Player Height (inches)</th>
<th>Basketball Player Height (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>53 67 70 70 72 72 72 72 72 73 75 75</td>
<td>68 68 68 68 69 69 70 70 70 70 70 70</td>
</tr>
</tbody>
</table>

Part E: The women on the Maryland field hockey team are not a random sample of all female college field hockey players. Similarly, the women on the Maryland basketball team are not a random sample of all female college basketball players. However, for purposes of this task, suppose that these two groups can be regarded as random samples of all female college field hockey players and all female college basketball players, respectively. If these were random samples, would you think that female college basketball players are typically taller than female college field hockey players? Explain your decision using answers to the previous questions and/or additional analysis.

What makes this a rich task? Students will need to...

- Use numerical data from random samples to draw comparative inferences about two populations.
- Solve real-life problems and justify conclusions based on data.
What does a rich task look like?

**Literacy Design Collaborative Sample Middle School Task:**
Are the financial gains of hydraulic fracturing, commonly known as fracking, worth the environmental risk? After reading informational texts and viewing multi-media, write a letter to your state legislator that addresses the question. Support your position with evidence from the text(s). Be sure to acknowledge competing views. Give examples from past or current events or issues to illustrate and clarify your position.

**What makes this a rich task? Students will need to...**
- Read multiple, cross-disciplinary complex texts, including non-print media, to develop content knowledge.
- Produce clear and coherent writing using textual evidence to analyze a real-world issue and support an argument.

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What does a rich task look like?

**PARCC 10th-Grade Prototype Constructed Response Task:**

Use what you have learned from reading “Daedalus and Icarus” by Ovid and “To a Friend Whose Work Has Come to Triumph” by Anne Sexton to write an essay that provides an analysis of how Sexton transforms Daedalus and Icarus.

As a starting point, you may want to consider what is emphasized, absent, or different in the two texts, but feel free to develop your own focus for analysis.

Develop your essay by providing textual evidence from both texts. Be sure to follow the conventions of standard English.

**What makes this a rich task? Students will need to...**
- Produce clear and coherent writing using textual evidence.
- Write informational texts and analyze of content.
- Demonstrate command of the conventions of standard English.
What does a rich task look like?

PARCC HS Prototype Math Task: Rabbit Populations, Part C

- Original Population: A rabbit population can increase at a rapid rate if left unchecked. Assume that 10 rabbits are put in an enclosed wildlife ranch and the rabbit population triples each year for the next 5 years, as shown in the table.
- New Population: A group of rabbits of a different kind is placed in a second enclosed wildlife ranch. This new population of rabbits doubles each year if left unchecked.

Compare the two rabbit population models. How many rabbits would you need to start with in the new rabbit population to have at least the same number of rabbits as in the original model after 5 years? Clearly explain how you found your answer.

What makes this a rich task? Student will need to...
- Build a function that models a relationship between two quantities.
- Construct and compare linear, quadratic, and exponential models and solve problems.
- Analyze relationships mathematically to draw conclusions in writing.

Smarter Balanced Sample 11th-Grade ELA Performance Task: Nuclear Power

Part 1: After you have reviewed the research sources, answer the questions below.
1. From the sources you have reviewed, summarize 3 major arguments that support, and 3 major arguments that oppose, the use of nuclear power for generating electricity. For each of the arguments, cite at least one source that supports this fact or point of view.
2. Evaluate the credibility of the arguments and evidence presented by these sources. Which of the sources are more trustworthy and why? Which of the sources warrant some skepticism because of bias or insufficient evidence?

Part 2: Write an argumentative report that recommends the position that your congresswoman should take on the plan to build a nuclear power plant in your state. Support your claim with evidence from the Internet sources you have read and viewed. You do not need to use all the sources, only the ones that most effectively and credibly support your position and your consideration of the opposing point of view.

What makes this a rich task? Students will need to...
- Produce clear and coherent writing using textual evidence to support an argument.
- Evaluate the credibility of claims.
- Demonstrate command of the conventions of standard English.
What does a rich task look like?

**Smarter Balanced Sample 4th-Grade Math Performance Task: Planting Tulips, Part 3**

The class finds a bag containing bulbs that are each 1 ½ inches wide and decides to use them in their rectangular planter. Following the planting guidelines, answer the questions and show your calculations.

A. This picture shows a tulip bulb that is 1 ½ inches wide. Use your ruler and mark an “X” where the next bulb could be planted.

B. Using your drawing, calculate the total length of space that is needed for each bulb with a 1 ½-inch width. Your answer should include the width of the bulb shown.

C. How many tulip bulbs with a 1 ½-inch width can be planted in a single row that is 5 feet long?

D. How many tulip bulbs with a 1 ½-inch width can be planted in a single column that is 2 feet long?

E. How many total tulip bulbs with a 1 ½-inch width can be planted in the 5-foot by 2-foot rectangular planter? Explain or show your reasoning.

**What makes this a rich task? Student will need to...**

- Solve real-world problems involving measurements.
- Construct chains of reasoning that will justify or refute propositions or conjectures.
- Select and use appropriate tools strategically.

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**Table Talk**

Take **three minutes** to discuss your thoughts to the following:

**What are some primary advantages of assessing students through rich tasks versus more conventional classroom assessments?**

**What are some of the practical curricular and instructional implications for your teachers and students of assessment through rich tasks?**
In other words...

If Miguel and his peers are to demonstrate mastery of the CCSS, they should engage in “authentic intellectual work” that:

- Addresses multiple standards within a subject area and across the curriculum.
- Is cognitively challenging and intellectually rewarding for students.
- Is informed by educator expertise and student interests.
- Deeply engages educators and students in work that is worth doing and has value beyond school.

What does research say about “authentic intellectual work”?

- “Authentic [intellectual] experiences should, to the extent possible, not be contrived and will often involve multiple measures across time to provide a comprehensive picture of students’ knowledge and abilities.” (McAlister, 2001, p. 23)
- “Participation in authentic intellectual activity helps to motivate and sustain students in the hard work that learning requires.” (Newmann, Bryk, and Nagaoka, 2001, p. 30)
- “Students [should be] made to feel safe to engage with the teacher and fellow students, and with interactions focused on collaborative learning, not competition among peers.” (Orland and Anderson, 2013, p. 3)
- “Meaningful, contextualized experiences tend to promote better learning.” (McAlister, 2001, p. 31)
- “Evidence indicates that assignments calling for more authentic intellectual work actually improve student scores on conventional tests.” (Newmann, Bryk, and Nagaoka, 2001, p. 29)
What might a research-based, CCSS-aligned assessment system look like?

- All diagnostic, formative, interim, and summative assessment systems are aligned to the CCSS and drive coherence in curriculum and instruction.
- Rich tasks build students’ interest in and engagement with authentic intellectual work that prepares all students for college and careers.
- CCSS-aligned assessment is primarily assessment for learning, designed to provide actionable information to improve teaching and learning – not merely to give students a grade.
- The system achieves an appropriate balance between assessment of discrete standards vs. multiple standards in the context of rich tasks.

Now, back to Miguel...

The promise of the CCSS is an education that prepares Miguel, and all other children, for success in college, career, and the 21st-century. When it comes to assessment in school, for Miguel it should be:

- Less like a test and more like a valuable challenge worth tackling.
- About getting useful feedback to improve and refine his work so he comes to know what quality work is.
- A seamless extension of his daily instructional experience, with application beyond the classroom.
- Technology-enhanced and personalized when appropriate.
- An opportunity to demonstrate through multiple modes of expression his knowledge, logic, ideas, values, insights, creativity, imagination, convictions, and passions.
Thank you!

Questions?

References

http://www.corestandards.org/


