CT Superintendent's
Community of Practice

Laying the Foundations for Mastery-Based Learning

December 15, 2016

Series Outcomes

• Build capacity to implement mastery-based learning at scale across a school district
• Explore and share ideas and strategies underway or planned in alignment with implementation
• Create a network of like-minded educators for political and cultural support

Meeting Dates

• December 15, 2016
• February 7, 2017
• April 27, 2017
• June 20, 2017

All meetings will be held at the Connecticut Association of Schools

www.greatschoolspartnership.org/presentations
Agenda

Background on the Great Schools Partnership

Who Gets a Driver’s License?

Global Best Practices

Design Levers to Improve Student Learning—and What Must We Rethink

Shifting Concepts

We Believe

In equitable, personalized, rigorous learning for all students leading to readiness for college, careers, and citizenship

We Believe

That schools must simultaneously attend to policy, practice, and community engagement
School improvement is context-based, not one-size fits all.

Automobiles were a new technology fitting into an old system.

Driving was largely trial and error.
Hey, maybe we need some rules for driving…

And maybe we need some way for people to show they are ready to drive…

Unpacking these Assessments

The written test:
- is criterion-referenced
- provides multiple opportunities
- isn’t averaged
Unpacking these Assessments

**The road test:**
- is criterion referenced—on different evidence
- is a performance assessment
- provides multiple opportunities
- isn’t averaged

Creating Support Pathways

- Driver’s education courses
- Classes are for support not demonstration
- Not required after age 20
- Offered through multiple venues

What are the design beliefs that underlie this assessment structure?

Design Beliefs

- Common learning standards
- Demonstration of knowledge and skills
- Past performance doesn’t indicate current capacity
- Evidence-based
- Human scoring by multiple people
- Multiple learning pathways
- Age related but not defined
- Variable time to demonstrate
If we followed the design beliefs of our schools, what would be different?

• Different standards for different students
• Initial failures averaged with later success
• No road test
• Single pathway
• Organized by age cohorts
• Centralized scoring
• Predetermined testing time

If both schools and drivers’ tests are learning and demonstrating experiences, why are they so different?

What are our historic school design principles?
Historic School Design
- Measurement of Time = Learning
- Equal Time = Equity
- Grade averaging provides reliable data
- Knowledge should be isolated by content
- Learners can integrate knowledge without assistance
- Age determines capacity to learn—and all capacities are the same by age

Historic School Design
- One pathway can work for everyone
- Reliability of judgment is more important than trustworthiness of data
- Learning happens in predetermined chunks of time
- Schools should serve as child care
- No school in the summer

Recent School Design
- The pace of student learning creates student agency over learning
- Student individuality outweighs the importance of engagement with other students or teachers
- More technology is better
- Better content knowledge = better teaching
- More of the same will create deeper learning
Bad News & Good News
Global Best Practices

- Supported by meta-analyses, comprehensive project findings, and focused investigations
- Included common characteristics of high-performing schools in U.S. and abroad
- Reviewed + refined by members from all five LIS member schools
- Comprised of 4 strands + 22 dimensions

Global Best Practices

Introducing a New Strand

Strand 4: School District

4.1: Role of the School Board

4.2: District Administrators

3.4 MORAL COURAGE

STEP 1 >> READ THE PERFORMANCE DESCRIPTIONS

STEP 2 >> DEVELOPING

STEP 3 >> PERFORMING

Unpacking GBP

In groups of 2 or 3, choose one of the dimensions. Then individually
- read the three description levels
- underline areas not attended to
- circle areas of accomplishment

Then as a group
- discuss evidence for your choices
- discuss student results
- “score” your efforts
5 Design Levers to Achieve Alignment with GBP

1. Emphasize Learning Over Time

What happens when we base learning on time?

If these kids aren’t physically growing at the same rate, why would we assume they will mentally learn at the same rate?
We assume equity by giving every student the same time

Practice makes perfect...

<table>
<thead>
<tr>
<th></th>
<th>STUDENT 1</th>
<th>STUDENT 2</th>
<th>STUDENT 3</th>
<th>STUDENT 4</th>
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<tr>
<td>First Try</td>
<td>F</td>
<td>A</td>
<td>C</td>
<td>A</td>
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<td>Second Try</td>
<td>D</td>
<td>B</td>
<td>C</td>
<td>A</td>
</tr>
<tr>
<td>Fifth Try</td>
<td>A</td>
<td>F</td>
<td>C</td>
<td>A</td>
</tr>
<tr>
<td>Final Grade</td>
<td>C</td>
<td>C</td>
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</tbody>
</table>

...except in school grading

Quick Write: What do we need to rethink?
What do we need to rethink?

- Credits based on time in class
- School day and school year
- Age cohorts
- Averaging quarter grades for end-of-year results

2. Value Equity over Competition

MASTERY-BASED LEARNING

Is not a stand-alone intervention

MASTERY-BASED LEARNING

Is a suite of practices resulting from the thoughtful combination of best practices currently used by expert educators with solid support in the literature
### Mastery-Based Learning Simplified

Cross-Curricular Graduation Competencies define a set of significant learning concepts that are not within the domain of a single content area, but are embedded in multiple areas. These are drawn from the Mathematical Practices of the Common Core, the Characteristics of Students Who are College and Career Ready from the ELA Common Core, and associated Connecticut state standards.

Content-Area Graduation Competencies define a set of significant learning concepts in each content area. These are drawn from the Math Common Core and English/Language Arts Common Core and associated Connecticut state standards.

#### Cross-Curricular Graduation Competencies

- **Required for Graduation**: YES
- **Reporting Method**: Transcript and Report Cards
- **Assessment Method**: Demonstration by Body of Evidence

#### Content-Area Graduation Competencies

- **Required for Graduation**: NO
- **Reporting Method**: Progress Reports
- **Assessment Method**: Verification and Proficiency

#### Unit-Based Learning Objectives

- **Required for Graduation**: NO
- **Reporting Method**: Feedback to Student
- **Assessment Method**: Formative Teacher Assessments

### A Graduation Competency Is...

A standard that focuses instruction on the most foundational, enduring, and leveraged concepts and skills within a discipline.
Mastery-Based Learning Simplified

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<table>
<thead>
<tr>
<th>Required for Graduation</th>
<th>Reporting Method</th>
<th>Cross-Curricular Graduation Competencies</th>
<th>Assessment Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>Transcript and Report Cards</td>
<td>5-8 cross-curricular competencies</td>
<td>Demonstration by Body of Evidence</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required for Graduation</th>
<th>Reporting Method</th>
<th>Content-Area Cluster Competencies</th>
<th>Assessment Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>Transcript and Report Cards</td>
<td>4-6 competencies per content area</td>
<td>Verification and Proficiency</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required for Graduation</th>
<th>Reporting Method</th>
<th>Performance Indicators</th>
<th>Assessment Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>Progress Reports</td>
<td>5-10 indicators per content area competency</td>
<td>Common School-Wide Assessments</td>
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</table>

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<th>Reporting Method</th>
<th>Unit-Based Learning Objectives</th>
<th>Assessment Method</th>
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<tbody>
<tr>
<td>NO</td>
<td>Feedback to Student</td>
<td>Guided by essential questions, teachers use daily learning targets to create progressions that move students toward the demonstration of performance indicators</td>
<td>Formative Teacher Assessments</td>
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<thead>
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<th>Reporting Method</th>
<th>Assessment Method</th>
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A Performance Indicator

Describes or defines what students need to know and be able to do to demonstrate mastery of a graduation standard.

A Performance Indicator

Is measurable.

A Performance Indicator

Students can demonstrate their performance over time.
A Performance Indicator

The aggregation of proficiency on these performance indicators measures whether a student has met the graduation standard.

Learning Objectives Are...

The component parts of a performance indicator - that is, the performance indicator has been broken down into a series of progressive steps and digestible chunks.
Learning Standards

1. All learning expectations are clearly and consistently communicated to students + families
2. Student achievement is evaluated against common learning standards and performance expectations that are consistently applied to all students

Assessment Practices

3. All forms of assessment are standards-based and criterion-referenced
4. Formative assessments measure learning progress during the instructional process
5. Summative assessments - which are integrated tasks requiring transfer of knowledge and skills, application, and performance in novel settings
### Grading + Reporting

6. Academic progress and achievement are monitored and reported separately.

7. Academic grades communicate learning progress and achievement.

8. Students are given multiple opportunities to improve their work when they fail to meet expected standards.

### Instructional Strategies

9. Students can demonstrate learning progress and achievement in multiple ways.

10. Students are given opportunities to make important decisions about their learning.

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**Silently read “Ten Principles of Mastery-Based Learning”**

**Identify one sentence, one phrase, and one word**

“Turn and Talk” with a neighbor and share your sentence, phrase, and word and why these pieces are meaningful to you.

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**What do we need to rethink?**

- Rank in Class
- Tracking
- Honors recognition
- Activities at graduation
3. Value Evidence Rather than Assessments
Assessment Pathways Simplified
A Great Schools Partnership Learning Model

We believe that reliability results from the careful alignment of demonstration tasks and instruction with intended learning outcomes. Comparability is possible when teachers assess student work with task-neutral common scoring guides and have time to calibrate their understanding and use. This graphic below represents five general learning pathways and how they can be assessed. While each of these has instructional value, only the first four will lead to greater comparability over time because they are assessed using common scoring criteria. We believe that these pathways are valuable and represent the many ways educators are personalizing learning for students in a proficiency-based learning system.

Crafting Scoring Criteria:
Design Guide- 5 Components

Scoring criteria:
- Are task neutral
- Are aligned with the level of cognitive demand in the Performance Indicator
- Include all elements of the Performance Indicator
- Describe complexity rather than frequency
- Focus on what students can do rather than deficiencies

Avoid Terms
Focused on Frequency
- Frequently
- Reliably
- Rarely
- Never
**Create**

- *I can describe linear and exponential functions as increasing/growth or decreasing/decay.*
- *I can recognize how a linear or exponential function must change for a particular problem.*
- *I can explain the starting value and the change factor for a linear and exponential function.*
- *I can create models for real-world problems in terms of linear and exponential functions.*

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**Sample**

<table>
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<th>1</th>
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**Task: Creating Scoring Criteria**

**Designing Scoring Criteria**

**Sample**

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</thead>
<tbody>
<tr>
<td>Describe</td>
<td>Recognize</td>
<td>Explain</td>
<td>Create</td>
</tr>
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</table>
Graduation Competency: Collaboratively and independently research, present, and defend discipline-based processes and knowledge from civics/government, economics, geography, and history in authentic contexts.

A. Gather, synthesize, and evaluate information from multiple sources representing a wide range of views; make judgments about conflicting findings from different sources, incorporating those from sources that are valid and refuting others.

B. Evaluate various explanations and authors’ differing points of view on the same event or issue, citing specific textual evidence from primary and secondary sources to support analysis.

What do we need to rethink?

- Single learning pathways
- Assessment hoops
- Homework
- Combining academic grades & habits of work
- Using assessments to control student behavior
- Athletic eligibility

4. Operate Accountability at Higher Levels of Rigor
What do we need to rethink?

- Assuming all standards are equal
- What learning is truly important for all students
- Support and intervention strategies
- Special Education

5. Prioritize Collaboration Over Pace
The three most important learning aids in the classroom are...

- Teachers
- Students
- Teaching Materials
What happens when we prioritize student pace over everything else?

Think about “pace” in terms of units of learning.

What do we need to rethink?

- Isolated on-line learning
- How to create inclusive instructional strategies
- Building student agency over compliance

SHIFTING CONCEPTS

What needs to stop? What remains the same? What do we need to improve?
Preparation for February

- Shining Moments
- Think of a wonderful learning experience or moment
- Describe it to 2 or 3 colleagues
- Together, identify the key characteristics of these moments

Preparation for February

- Keep a brief “log”
- Note two things: a) strong examples of practice that align with the characteristics we have identified; and b) instances where you saw or could see the potential for two or more learning pathways leading to the same outcomes
- Come to February prepared to share

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