Rigorous Curriculum Design

Presented by
Larry Ainsworth
The Leadership and Learning Center
Englewood, Colorado
www.LeadandLearn.com
Toll-Free 1-866-399-6019

The Common Core State Standards—Insufficient By Themselves

“To be effective in improving education and getting all students ready for college, workforce training, and life, the Common Core State Standards must be partnered with a content-rich curriculum and robust assessments, both aligned to the Standards.”

CCSSSI Webinar, 2010

Rigorous Curriculum Design

How to Create Curricular Units of Study that Align Standards, Instruction, and Assessment

Book and Seminar Published 2010
Lead + Learn Press
Englewood, Colorado
A Curriculum Model That Provides The What, Why, and How

1. What do ALL students need to know and be able to do? Standards
2. How do we teach so that all students will learn? Instruction
3. How will we know if they have learned it? Assessment
4. What will we do if they don’t know or if they come to us already knowing? Differentiation and Enrichment

DuFour and Eaker
Professional Learning Communities At Work (1998)

A Curriculum Roadmap

✧ An overview of a do-it-yourself process that curriculum design teams can follow—over time—to create a rigorous curriculum in any content area

JANUARY, 2010

“Your process is going great! We are enjoying every moment of our work (if you can call it ‘work’). Our first eight documents are comprehensive, clear, and all very strongly based on the standards. Curriculum makes so much sense now!”

BONNIE FINEMAN
East Hartford High School Curriculum Design Team

© 2011
All rights reserved.
Copy only with permission.

The Leadership and Learning Center.

Rigorous Curriculum Design Keynote
April, 2011
Page P-2
Part One

SEE THE “BIG PICTURE” FIRST
Part 1: Making Connections

What Is Rigorous Curriculum Design?

Connecting Curriculum Design to the “Big Picture”

Overview of Design Sequence

Rigor Defined

Rigor refers to a level of difficulty and the ways in which students apply their knowledge through higher-order thinking skills. Rigor also means the reaching for a higher level of quality in both effort and outcome.

Rigorous Curriculum Defined

A rigorous curriculum is an inclusive set of intentionally aligned components—clear learning outcomes with matching assessments, engaging learning experiences, and instructional strategies—organized into sequenced units of study.
Rigorous Curriculum Defined

A rigorous curriculum serves as both the detailed road map and the high-quality delivery system for ensuring that all students achieve the desired end: the attainment of their designated grade- or course-specific standards within a particular content area.

Connecting

Curriculum Design Big Picture

Common Formative Pre-Assessment & Data Teams Process

- Effective Teaching Strategies with Progress Monitoring Checks
- Scope, Sequencing, and Pacing of Curricular Units
- PRIORITY CCSS and Supporting CCSS

Common Core State Standards

State Assessments: National Assessments

Common Formative Post-Assessment & Data Teams Process

- Rigorous Curricular Unit of Study Based On “Unwrapped” Priority CCSS
- Enrichment, Remediation, Intervention Prior to Next Curricular Unit

The Leadership and Learning Center
The Big Picture Connections

✧ Which of the “pieces” are already in place in your school system?

Progress Check

✧ Where are you now?

✧ Which “big picture” practices are already in place?

✧ What should your next steps be?

Overview of Part 2:
Building the Curricular Foundation
Part Two
Building the Foundation for Designing Curricular Units

Five Sequential Steps

Building the Foundation

1. Prioritize the Standards

Common Core State Standards

CCSS are presented in the context of Priority Standards in Chapter 5, pp. 47-53.
The question of national standards is inescapable. The U.S. needs fewer, clearer, and higher national standards.


Are There Fewer?

Counting The CCSS

Priority Standards Defined

Priority Standards are a carefully selected subset of the total list of the grade-specific and course-specific standards within each content area that students must know and be able to do by the end of each school year in order to be prepared to enter the next grade level or course.
Supporting Standards Defined

Supporting standards are those standards that support, connect to, or enhance the Priority Standards. They are taught within the context of the Priority Standards, but do not receive the same degree of instruction and assessment emphasis as do the Priority Standards.

Prioritization, Not Elimination!

• All grade-level or course-specific standards are not equal in importance!
• Prioritize those standards by distinguishing those that are essential from those that are supporting.
• Teach the supporting standards in the context of or in relation to the essentials.

Priority Standards and Supporting Standards

✓ Like fence posts, Priority Standards provide curricular focus in which teachers need to “dig deeper” and assure student competency.

✓ Like fence rails, “Supporting Standards” are curricular standards which connect to and support the Priority Standards.
Two Standards: One Post, One Rail

Helpful Tip

When considering whether to select one standard over another, determine which one is the more comprehensive or rigorous.

"If students could do this one, that would take care of this other one."

Priority Standards

Readiness
(for next level learning)

Endurance
(concepts and skills that last over time)

Leverage
(crossover application to other areas)

External Exams
(national, state, college, career)

Readiness
(for next level learning)

Endurance
(concepts and skills that last over time)

Leverage
(crossover application to other areas)

External Exams
(national, state, college, career)
Priority Standards Steps

Step 1: Make initial selections.
Step 2: Look for connections to state tests.
Step 3: Chart selections for each grade.
Step 4: Vertically align standards K-12.
Step 5: Acquire feedback, revise, publish.
Step 6: Provide professional development.

Progress Check

✧ Where are you now?

✧ Is your school district or state ready to prioritize the Common Core?

✧ What should your next steps be?

Building the Foundation

2. Name the Units of Study
1. Prioritize the CCSS
A series of specific lessons, learning experiences, and related assessments—based on designated Priority Standards and related supporting standards—for a topical, skills-based, or thematic focus that may last anywhere from two to six weeks.

**TOPICAL Units of Study**
Focus on a specific portion of a larger subject or discipline.

**Topical Examples**
- Science: Solids and Liquids
- Math: Estimation
- Reading: Story Elements

**SKILLS-BASED Units of Study**
Emphasize Application

**Skills-Based Examples**
- Converting Fractions to Decimals
- Making Text Connections
- Editing and Revising
THEMATIC Units of Study
Emphasize connections to other topics within the same discipline or to completely different disciplines

Thematic Examples

- Science: Life Cycles
- Social Studies: Impact of War
- Visual Arts: Art and Multimedia

Building the Foundation

3. Assign the Standards
2. Name the Units of Study
1. Prioritize the CCSS

Assign the Standards—Priority and Supporting

- Determine the appropriate number of Priority Standards for each unit based on their cognitive difficulty – average is three or four.
- Distribute Priority Standards across multiple units as long as it makes instructional sense to do so.
Building the Foundation

1. Prioritize the CCSS
2. Name the Units of Study
3. Assign the Standards
4. Prepare a Pacing Calendar

Pacing Calendar Defined

A pacing calendar is a yearlong (or course-long) schedule for delivering all of the planned units of study for a designated grade level or course, not the instructional materials used within those units.

Pacing Calendar Defined

A pacing calendar helps ensure that students learn the Priority Standards and related supporting standards in the right order through instructional “building blocks” or learning progressions (Popham, 2007).
Pacing Calendar Defined

“A carefully planned pacing calendar provides suggested horizontal learning progressions within grades and courses and suggested vertical learning progressions between grades and courses. (Ainsworth, 2010).”

Building the Foundation

5. Construct Unit Planning Organizer
4. Prepare a Pacing Calendar
3. Assign the Standards
2. Name the Units of Study
1. Prioritize the CCSS

Brainstorm The Elements

What Key Components Does a Unit Organizer Need to Include?
See The Design Format

Unit Planning Organizer

A Universal Template For Creating Each of the Curricular Units of Study

Rigorous Curriculum Design Planners

Assessment Planner
Weekly and Daily Planners
Details Organizer
Unit Planning Organizer
Engaging Learning Experiences

© 2011
All rights reserved.
Copy only with permission.

The Leadership and Learning Center
Rigorous Curriculum Design Keynote
April, 2011
Page P-16
**Selected-Response: Multiple-Choice**
Question is directly matched to “unwrapped” concept, skill, and level of Bloom’s Taxonomy.

**Level 2—RECOGNIZE (main idea)**

- **Student Directions:** Choose the best answer from the answer choices.

1. What is the main idea of this tale? (Level 2)
   a. Two frogs accidentally jumped into a pail of milk.
   b. The little frog lived because he didn’t give up.
   c. Milk can be churned into butter with enough effort.

**Selected-Response: Multiple-Choice**
Question is directly matched to “unwrapped” concept, skill, and level of Bloom’s Taxonomy.

**Level 4—DRAW (inferences, conclusions, generalizations)**

This tale best illustrates which one of the following generalizations: (Level 4)
   a. Danger can show up in the most ordinary places.
   b. Events sometimes take a surprising turn if you refuse to quit.
   c. Everyone fails some of the time.

**Extended-Response** Question directly matched to “unwrapped” concept, skill, and level of Bloom’s Taxonomy.

**Level 5—SUPPORT (inferences, conclusions with text evidence, prior knowledge)**

- Write one or more paragraphs defending your answer choice for the multiple-choice question above. State your choice and three reasons to support it, using examples from the folktale. Write a concluding sentence to summarize or support your choice. (Level 5)
Scoring Guide

Goal
- States answer choice
- Supports answer choice with three examples from tale
- Writes one or more paragraphs
- Writes concluding sentence that summarizes or supports answer choice

Create the Remaining Levels of the Scoring Guide: Advanced, Progressing, Beginning

Design the Curricular Unit – Twelve Sequential Steps

5. Create Pre-Assessment
8. Gather Instructional Resource Materials
7. Plan Engaging Learning Experiences
6. Identify Vocabulary, Interdisciplinary Connections, 21st Century Learning Skills
Design the Curricular Unit – Twelve Sequential Steps

5. Create Pre-Assessment
6. Identify Vocabulary, Interdisciplinary Connections, 21st Century Learning Skills
7. Plan Engaging Learning Experiences
8. Gather Instructional Resource Materials

Step 7:
Plan Engaging Learning Experiences

Performance Assessment Defined

A collection of several related performance tasks, distributed throughout a unit of study, that progressively develop and reveal student understanding of the “unwrapped” concepts, skills, and Big Ideas.
Engaging Scenario
Good news! Your parents have finally agreed to let you have that new cell phone. But here’s the catch: You have to convince them that you’ve done your homework and found the cell phone package with the greatest number of “perks” for the least amount of cash. To do this, you must analyze three cell phone packages to determine the one that best meets your parents’ requirements.

Engaging Scenario
Be prepared to present your information mathematically in a persuasive letter that you will write and deliver to your parents. If you make a strong case, and back it up with data, you may soon be text-messaging your friends on your new phone. Good luck!
Synopses of Math and Language Arts Performance Tasks

- Task One: Create a Venn diagram representing the features of three different cell phone packages.
- Task Two: Create a comparison chart showing the cost of each phone, cost of each package, number and type of minutes included, and perks offered by each cell phone company.

Synopses of Math and Language Arts Performance Tasks

- Task Three: Write a summary essay comparing and contrasting the pros and cons of each of the three cell phone types.
- Task Four: Write a persuasive letter to your parents stating your choice of cell phone package with data to support the reasons for your choice.

Discussion
Design the Curricular Unit – Twelve Sequential Steps

9. Recommend High-Impact Instructional Strategies

10. Detail Unit Planning Organizer

11. Create Informal Progress Monitoring Checks

12. Write Weekly Plans; Design Daily Lessons

Greater Detail Needed

Sequencing and Pacing of Learning Experiences

Suggested Ways to Use Instructional Strategies

Design the Curricular Unit – Twelve Sequential Steps

9. Recommend High-Impact Instructional Strategies

10. Detail Unit Planning Organizer

11. Create Informal Progress Monitoring Checks

12. Write Weekly Plans; Design Daily Lessons
Teach, Teach, Teach, Teach, Teach, TEST

Teach, Assess, Re-Teach, Assess, Teach, Re-Assess, Teach, ASSESS, INTERVENE, ENRICH

Old Model

New Model

Step 11: Progress Monitoring Checks

Administer short, informal progress monitoring checks that coincide with learning progressions—the “building blocks” of instruction—in order to determine student learning and differentiate instruction accordingly.

Design the Curricular Unit – Twelve Sequential Steps

9. Recommend High-Impact Instructional Strategies
10. Detail Unit Planning Organizer
11. Create Informal Progress Monitoring Checks
12. Write Weekly Plans; Design Daily Lessons
JUNE, 2010

“I can’t wait for you to see our final product... these units are quite rich. Our group worked ... to make the curriculum accessible to the teachers. More importantly, I believe it is going to be extremely valuable to our students. As I said before, it all makes sense now!”

BONNIE FINEMAN
East Hartford High School
Curriculum Design Team
“Rigorous Curriculum Design should be a required course in EVERY teacher education program in the country. Without it educators will never see the whole picture that makes up their professional career.”

GARY L. SACKET
Aurora Learning Community Association
Fairview, Oklahoma

Reflection

• What new ideas or insights have you gained as a result of this preview of the Rigorous Curriculum Design model?

• What impact do you see this work having on instruction and assessment in your school system and state?

Together We CAN Make This Work!
Your Feedback

• Thank you for the opportunity to present this information to you!
  • Please take a few moments to complete the feedback form.

• Your comments, insights, and inquiries are appreciated!

Thank you!

Larry Ainsworth
The Leadership and Learning Center
1.866.399.6019 ext. 509
LAinsworth@LeadandLearn.com
LeadandLearn.com