Walking the Talk

Integrating the Common Core Standards in Teacher Preparation Courses
On a sheet of paper . . . .

- Write down your prediction of what this is going to be about.
- Write down a significant take-away you hope to get from this presentation.
Suppositions for Pre-Service Faculty:

- **Model:** those research-based teaching strategies and practices that they will be expected to use.
- **CCSS indicates:** modified and/or emerging teaching strategies and practices.
- **Teach:** them to our students, and incorporate them in our lessons!
What This Is About

Overview

CCSS Shifts

Questions

Tips for Teachers of Future Teachers

Indicated Teaching Strategies
And what right do I have?

Not a CCSS Expert
Am a CCSS Investigator

- Attended 2 CCSS Conferences
- 2 Webinars
- Teaching Channel – tch@teachingchannel.org
- ASCD SmartBrief – ascd@smartbrief.com
- Continuous conversations
  - Classroom teachers implementing
  - Principals coordinating implementation
  - Superintendents overseeing
- Other sources
Other Sources


The Common Core: What Teachers Really Think

58% feel "somewhat" prepared for the new standards.

14% feel "very" prepared.

23% don’t feel prepared at all.

ABOUT HALF are "very" or "somewhat" concerned about finding aligned resources for math, ELA, science and social studies.

ONLY 1 in 5 say their students’ parents are aware of the Common Core.

TOP CONCERNS

- Understanding the standards
- Assessment
- Student engagement
- Lack of professional development

*Based on a July 2012 WeAreTeachers survey of 540 K–12 teachers.
Common Core State Standards

- States led initiative
- Coordinated by the National Governors Association and the Council of Chief State School Officers
- Input provided by:
  - State departments of education
  - Scholars and assessment developers
  - Professional educational organizations
  - Parents, students, and members of public
Common Core State Standards

- Sparked by international comparisons
- Benchmark alignment
- Not a plot!
You can't compete with these kids. So we're gonna cut budgets and move you down a few weight classes.

You'll kick Zimbabwe's butt!
CCSS Shifts – Student Outcomes

Old Outcomes

- Knowing **WHAT** the answer is

New Outcomes

- Knowing **HOW** to get the answer
- Knowing **WHY** the answer is right or wrong
CCSS Shifts – Demonstration of Reading Comprehension

Old

- Answer the questions at the end of the chapter

New

- Rigorous deep-thinking activities
- Real life

Questions

CCSS Shifts

Overview

Old

Rigorous deep-thinking activities
Real life

New

Overview

Old

Rigorous deep-thinking activities
Real life

New

Overview

Old

Rigorous deep-thinking activities
Real life

New
Real-Life Comprehension Demonstrators

- Write a letter to the author
- Create a dialogue between two characters
- Write a book review
- Create a scrapbook/nonlinguistic representation of events
CCSS Shifts – Discipline Connectivity

**Independent Disciplines**
- Subjects taught separately
- Little cross-over

**Interdependent Disciplines**
- Reading and Writing across the curriculum
- Social Studies, Science and ELA
CCSS Shifts – Cognitive Processes

- **Bloom’s Taxonomy**
  - Remember, understand, apply
  - Analyze, evaluate, create

- **Hess’ Cognitive Rigor Matrix**
  - Applies Webb’s Depth-of-Knowledge Levels
<table>
<thead>
<tr>
<th>Revised Bloom's Taxonomy</th>
<th>Webb's DOK Level 1 Recall &amp; Reproduction</th>
<th>Webb's DOK Level 2 Skills &amp; Concepts</th>
<th>Webb's DOK Level 3 Strategic Thinking/Reasoning</th>
<th>Webb's DOK Level 4 Extended Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Remember</strong></td>
<td>Recall, recognize, or locate: basic facts, details, events, or ideas explicit in texts</td>
<td>Specify, explain, show relationships; explain why, cause-effect</td>
<td>Explain, generalize, or connect ideas using supporting evidence (quote, example, text reference)</td>
<td>Explain how concepts or ideas specifically relate to other content domains or concepts</td>
</tr>
<tr>
<td></td>
<td>Read words orally in connected text with fluency &amp; accuracy</td>
<td>Give non-examples/examples</td>
<td>Identify make inferences about explicit or implicit themes</td>
<td>Develop generalizations of the results obtained or strategies used and apply them to new problem situations</td>
</tr>
<tr>
<td><strong>Understand</strong></td>
<td>Identify or describe literary elements (characters, setting, sequence, etc.)</td>
<td>Summarize results, concepts, ideas</td>
<td>Describe how word choice, point of view, or bias may affect the readers' interpretation of a text</td>
<td>Write multi-paragraph composition for specific purpose, focus, voice, tone, &amp; audience</td>
</tr>
<tr>
<td></td>
<td>Select appropriate words when intended meaning/definition is clearly evident</td>
<td>Make basic inferences or logical predictions from data or texts</td>
<td>Make interpretive judgments that are not evident in the text</td>
<td>Illustrate how multiple themes (historical, geographic, social, cultural) may be interrelated</td>
</tr>
<tr>
<td></td>
<td>Describe/explain who, what, where, when, or how</td>
<td>Locate information to support explicit-implicit central ideas</td>
<td>Select or devise an approach among many alternatives to research a novel problem</td>
<td></td>
</tr>
<tr>
<td><strong>Apply</strong></td>
<td>Use language structure (pre/suffix or word relationships (synonym/antonym) to determine meaning of words</td>
<td>Use context to identify the meaning of words/phrases</td>
<td>Apply a concept in a new context</td>
<td>Illustrate how multiple themes (historical, geographic, social) may be interrelated</td>
</tr>
<tr>
<td></td>
<td>Apply rules or resources to edit spelling, grammar, punctuation, conventions, word use</td>
<td>Obtain and interpret information using text features</td>
<td>Revise final draft for meaning or progression of ideas</td>
<td>Select or devise an approach among many alternatives to research a novel problem</td>
</tr>
<tr>
<td></td>
<td>Apply basic formats for documenting sources</td>
<td>Develop a text that may be limited to one paragraph</td>
<td>Apply internal consistency of text organization and structure to composing a full composition</td>
<td>Apply word choice, point of view, style to impact readers' /viewers' interpretation of a text</td>
</tr>
<tr>
<td><strong>Analyze</strong></td>
<td>Identify whether specific information is contained in graphic representations (e.g., map, chart, table, graph, T-chart, diagram) or text features (e.g., headings, subheadings, captions)</td>
<td>Identify use of literary devices</td>
<td>Analyze information within data sets or texts</td>
<td>Analyze multiple sources of evidence, or multiple works by the same author, across genres, time periods, themes</td>
</tr>
<tr>
<td></td>
<td>Decide which text structure is appropriate to audience and purpose</td>
<td>Analyze format, organization, &amp; internal text structure (signal words, transitions, semantic cues) of different texts</td>
<td>Analyze interrelationships among concepts, issues, problems</td>
<td>Analyze complex/abstract themes, perspectives, concepts, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Distinguish: relevant-relevant information; fact/opinion</td>
<td>Analyze or interpret author's craft (literary devices, viewpoint, or potential bias) to create or critique a text</td>
<td>Gather, analyze, and organize multiple information sources</td>
</tr>
<tr>
<td><strong>Evaluate</strong></td>
<td>Brainstorm ideas, concepts, problems, or perspectives related to a topic or concept</td>
<td>Identify characteristic text features; distinguish between texts, genres</td>
<td>Cite evidence and develop a logical argument for conjectures</td>
<td>Evaluate relevancy, accuracy, &amp; completeness of information from multiple sources</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use reasoning, planning, and evidence to support inferences</td>
<td>Describe, compare, and contrast solution methods</td>
<td>Apply understanding in a novel way, provide argument or justification for the application</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Justify or critique conclusions drawn</td>
<td>Verify reasonableness of results</td>
<td>Synthesize information within one source or text</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synthesize information across multiple sources or texts</td>
<td>Develop a complex model for a given situation</td>
<td>Synthesize information across multiple sources or texts</td>
</tr>
</tbody>
</table>

© 2009 Karin K. Hess: Hess' Cognitive Rigor Matrix: Permission to reproduce is given when authorship is fully cited [kess@nciea.org]

For full article, go to www.nciea.org
CCSS Shifts - Reading

**Isolated Reading Assignments**
- Unconnected within content area
- Unconnected between disciplines

**Comparative Reading Assignments**
- Interconnected by theme
- Cross-disciplinary
CCSS Shifts - Reading

Arizona’s College and Career Ready Standards

Grades 9-10 students:

Integration of Knowledge and Ideas

7. Analyze the representation of a subject or a key scene in two different artistic mediums, including what is emphasized or absent in each treatment (e.g., Auden’s “Musée des Beaux Arts” and Breughel’s Landscape with the Fall of Icarus).

(9-10.RL.7)
CCSS Shifts - Reading

- Fiction
  - Great percentage

- Non-Fiction
  - Significant increase in reading for information
  - Comparative
CCSS Shifts - Reading

Distribution of Literary and Informational Passages by Grade in the 2009 NAEP Reading Framework

<table>
<thead>
<tr>
<th>Grade</th>
<th>Literary</th>
<th>Informational</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>8</td>
<td>45%</td>
<td>55%</td>
</tr>
<tr>
<td>12</td>
<td>30%</td>
<td>70%</td>
</tr>
</tbody>
</table>

CCSS Shifts - Writing

Creative
- About 90%

Informational
- Significant increase
- Often comparative
CCSS Shifts - Writing

Distribution of Communicative Purposes by Grade in the 2011 NAEP Writing Framework

<table>
<thead>
<tr>
<th>Grade</th>
<th>To Persuade</th>
<th>To Explain</th>
<th>To Convey Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>30%</td>
<td>35%</td>
<td>35%</td>
</tr>
<tr>
<td>8</td>
<td>35%</td>
<td>35%</td>
<td>30%</td>
</tr>
<tr>
<td>12</td>
<td>40%</td>
<td>40%</td>
<td>20%</td>
</tr>
</tbody>
</table>

CCSS Shifts - Writing

ELA
- Typical sole responsibility

All Disciplines
- Great increase
- All teachers of writing
CCSS Shifts - Mathematics

**Old**
- Not rigorous by comparison
- Focused on **WHAT**

**New**
- Significantly more rigorous
- Also focused on **HOW** and **WHY**
Teaching Strategies

- Reading for Meaning
- Writing to Learn
- Assessment
Reading for Meaning

Research Behind

- Good reading is active reading
  - Active engagement before
  - Active engagement during
  - Active engagement after
- Comprehension involves repertoire of skills
  - Connections to background knowledge
  - Drawing inferences
  - Determining importance
Reading for Meaning

Before

- Teacher identifies short text, reading assignment
- Generate statements, preview before reading
  - True or false
  - Open to interpretation
  - Provoke discussion or debate
- Student predictions
Reading for Meaning

During
- Students read and search text for evidence
- Record evidence (for, against, etc.)

After
- Students discuss evidence in pairs/small groups
- Whole-class discussion, sharing, justification
### Reading for Meaning Organizer

<table>
<thead>
<tr>
<th>Evidence For</th>
<th>Statement</th>
<th>Evidence Against</th>
</tr>
</thead>
<tbody>
<tr>
<td>●</td>
<td>The Common Core State Standards are a good thing for education for America</td>
<td>●</td>
</tr>
<tr>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>●</td>
<td></td>
<td>●</td>
</tr>
</tbody>
</table>

*Reading for Meaning*
Another RfM Organizer

**FIGURE 2.1** Student's Top Hat Organizer for the U.S. Congress

<table>
<thead>
<tr>
<th>House of Representatives</th>
<th>Senate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serve for two years</td>
<td>Serve for six years</td>
</tr>
<tr>
<td>435 representatives</td>
<td>100 senators</td>
</tr>
<tr>
<td>Number of representatives depend on each state's population</td>
<td>Each state has two senators</td>
</tr>
<tr>
<td>Led by the Speaker of the House</td>
<td>Led by the Vice President of the United States</td>
</tr>
</tbody>
</table>

**Similarities**

The House and Senate make up the legislative branch of government.
Both propose and debate legislation.
With a Partner/Small Group

- Identify a common EDU course
- Identify 1 competency or learning objective
- Come up with one RfM activity addressing it
- Whole group share out
Write to Learn

Reasons for

- Develops higher-order thinking
- CCSS identifies 3 types of writing necessary
  - Arguments
  - Informative/explanatory
  - Extended writing/revision process
- Range of Writing
  - Anchor Standard 10: “range of tasks, purposes, audiences”
Write to Learn – Provisional Writing

“Quick writing” like brainstorming

- Learning Logs
  - Write in logs (formative assessment opportunity)
  - Share their responses small group then whole class

- Free Write
  - After learning experience
  - Generate most important ideas
  - Share in groups then whole class
  - 4-2-1

- Journal entries
Write to Learn – Readable Writing Tools

- Readable writing
  - Argument
  - Informative/explanatory
  - Narrative
  - Comparison
  - Analysis
  - Description
## 3X3 Writing Frame

### Sample 3X3 Writing Frames

#### Persuasive Frame

<table>
<thead>
<tr>
<th><strong>Beginning</strong></th>
<th><strong>Middle</strong></th>
<th><strong>End</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>What are you trying to prove?</td>
<td>What is your evidence? Prove it!</td>
<td>Close the writing</td>
</tr>
</tbody>
</table>

**Make you case or restate the question**

The Common Core State Standards are good for the children of the United States

**Magic THREES: Reasons, Causes, Purposes**

- One reason: raises the standards.
- Another reason: children moving from state to state.
- Another reason: improved teaching strategies.

**Elaborate on each reason (or provide an example)**

- CCSS were created in comparison to the top scoring countries.
- CCSS are in most states, so children moving from one state to another will have consistent expectations and curricula.
- CCSS suggests many new strategies for teaching of reading, writing, and mathematics that further higher order thinking skills of their children.

**Wrap it up**

The Common Core State Standards will raise the bar and level the field at the same time. They will provide richer learning experiences for our students while making their educational levels equivalent to those in Singapore, Finland, etc.
### Sample 3X3 Writing Frames

#### Narrative/Informative Frame

<table>
<thead>
<tr>
<th>Beginning</th>
<th>Middle</th>
<th>End</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What experience are you relating?</strong></td>
<td><strong>Magic THREEES: Identify three key points in the story/experience.</strong></td>
<td><strong>Close the writing</strong></td>
</tr>
<tr>
<td><strong>What message/idea do you want to convey?</strong></td>
<td><strong>Make each point come to life with details, sensory language, and dialogue.</strong></td>
<td><strong>Wrap it up</strong></td>
</tr>
</tbody>
</table>

| I want to relate the good teaching strategies I learned in my Field Experience. | 1. Effective questioning. 2. Nonlinguistic representations. 3. Cooperative learning. | 1. The teacher observed questioned her students frequently. They never knew who was going to be called on, and she never let students “off the hook.” 2. The teacher had a wide variety of nonlinguistic representations ranging from manipulatives to charts/graphs to pictographs. Students also had to generate their own NLRs. 3. The teacher used frequent cooperative learning strategies with flexible groups. They moved fluently from partners to groups of 3-4 with multiple purposes. | The teacher I observed was a master educator. She loved her students and they loved her. Three strategies she continually used were effective questioning, nonlinguistic representations, and cooperative learning. As a result, this was a rich and rewarding experience for me. |
With a Partner/Small Group

- Identify a common EDU course
- Identify 1 competency or learning objective
- Come up with one Writing to Learn activity addressing it
- Whole group share out
Why Assessment?

Learning Gain With Assessments

Number of Assessments per 15 week period

Frequent Use of Formative Assessment

Formative Assessment

Obtrusive
Unobtrusive
Obtrusive Assessment

*Purposeful interruption of flow of instruction*

- Paper-and-pencil test or quiz
- Questioning with random selection
- Demonstration (teacher or student)
- Oral report (student)
- Constructed conversation
- Presentation (teacher or student)
- Use of mini-whiteboards
- Note-taking interruption with task (e.g. Cornell Notes)
- In-class item analysis
- Use of clickers in Ppt presentations
Unobtrusive Assessment

*Does not interrupt flow of instruction*

- Individual observation
- Use of proximity
- Observation of individual student or student interactions in groups, with feedback
- Importance of teacher circulation
Teaching Assessment Tip – Circulate!

- Break the plane
- Full access required
- Engage while circulating
- Move systematically but unpredictably
- Position for power


Bottom line about circulation

- Necessary component of unobtrusive assessment
- Effective classroom management tool
What about Student Self-Assessment?

When students track their own progress:

- Marzano Research Laboratory: meta-analysis of 14 different studies in which teachers had students chart their progress on specific learning goals. The results?
  - Effect Size (the larger the ES, the more powerful) = .92
  - Percentile Gain = 32

Marzano, R.J. (2010)
Self-Assessment Strategies

Student Progress Chart
Keeping Track of My Learning

Name: **Dane**

Learning Goal 1: **Evaluating proportions**

My score at the beginning: **1.5**. My goal is to be at **3** by **March 30**.

Specific things I am going to do to improve: **Work 15 min. three times a week**

Learning Goal: Evaluating Proportions

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>e</th>
<th>f</th>
<th>g</th>
<th>h</th>
<th>i</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

- **Feb. 5**
- **Feb. 12**
- **Feb. 20**
- **Feb. 28**
- **Mar. 12**
- **Mar. 26 Final Exam**
- **Summative Score 3.5**
Self-Assessment Strategies

Other Ideas:

- Student “Grade Checks” at regular intervals
- Logs or Journals of grades
- Low grade student responses (for major projects, assessments, etc.)
  - Identify why they got the grade they got
  - Resubmit assignment after correcting mistakes
  - Identify what they need to do for next unit assessment or assignment
With a Partner/Small Group

- Identify a common EDU course
- Identify 1 competency or learning objective
- Come up with one Assessment activity addressing it
- Whole group share out
COMMON COREZILLA

Don't be afraid

Instructional Strategies
Curriculum Models
Frameworks
Curriculum Alignment
Curriculum Comparisons
Formative instruction
And assessment
Differentiation
Professional Development
For Teachers of Future Teachers

For the CCSS

- Model the Strategies
- Educational Vocabulary
- Read the standards!
## Ratios and Proportional Relationships (RP)

**Understand ratio concepts and use ratio reasoning to solve problems.**

### Standards

Students are expected to:

<table>
<thead>
<tr>
<th>Standards</th>
<th>Mathematical Practices</th>
<th>Explanations and Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.RP.A.2.</td>
<td>6.MP.2. Reason abstractly and quantitatively.</td>
<td>A unit rate compares a quantity in terms of one unit of another quantity. Students will often use unit rates to solve missing value problems. Cost per item or distance per time unit are common unit rates, however, students should be able to flexibly use unit rates to name the amount of either quantity in terms of the other quantity. Students will begin to notice that related unit rates are reciprocals as in the first example. It is not intended that this be taught as an algorithm or rule because at this level, students should primarily use reasoning to find these unit rates. In Grade 6, students are not expected to work with unit rates expressed as complex fractions. Both the numerator and denominator of the original ratio will be whole numbers.</td>
</tr>
<tr>
<td>(Expectations for unit rates in this grade are limited to non-complex fractions.)</td>
<td>6.MP.6. Attend to precision.</td>
<td></td>
</tr>
</tbody>
</table>

**Connection:** 6-8.RST.4

### Examples:

- On a bicycle you can travel 20 miles in 4 hours. What are the unit rates in this situation, (the distance you can travel in 1 hour and the amount of time required to travel 1 mile)?

Solution: You can travel 5 miles in 1 hour written as $\frac{5\text{mi}}{1\text{hr}}$ and it takes $\frac{1}{5}$ of an hour to travel each mile written as $\frac{1\text{hr}}{5\text{mi}}$. Students can represent the relationship between 20 miles and 4 hours.

![Diagram](image)

- A simple modeling clay recipe calls for 1 cup corn starch, 2 cups salt, and 2 cups boiling water. How many cups of corn starch are needed to mix with each cup of salt?
For Teachers of Future Teachers

Location and Navigation

- State educational web site
- Show navigation tips, techniques
- Assign navigation searches

Preparation of Arizona’s Students for College and Career Success

Arizona’s College and Career Ready Standards (AZCCRS) Home Page

Preparing Arizona’s students for college, career, and life

Arizona’s College and Career Ready Standards give Arizona students the skills they need to be successful in life. Simply put, they are a set of expectations placed on students to ensure that when they leave the classroom, they are ready to become informed, productive members of their community and that they are not only able to compete in a competitive job market, but that they socialize.

Arizona education standards have been adopted by the Arizona Board of Education to ensure every child in our great state has the skills to move through our school system.

These standards, Arizona’s College and Career Ready Standards, were adopted in 2010 after extensive public comment and public meetings by the Board of Education. Schools began implementing the standards during the 2013 school year.

Across the state, Arizona’s College and Career Ready Standards are being implemented to ensure that all students have the academic knowledge and skills they need to be successful in college, career, and life. The Standards significantly raise the bar for our students, and focus on critical-thinking, problem solving, and effective communication skills. However, they are no substitute for quality curriculum, effective teachers, efficient administrative leadership, and engaged parents.

“Simply put, ‘College and career readiness’ is the umbrella under which many education and workforce policies, programs and initiatives thrive.” (Achieve, Inc., 2012)
For Teachers of Future Teachers

**Incorporate Into Field Experiences**

- Identifications
- Discussions with mentors
- Reflection assignments
For Teachers of Future Teachers

Lesson Delivery

- Students choose grade level/subject area
- Plan/design lesson from CCSS
- Require CC teaching strategy
- Students deliver with professor assessment and feedback
Questions

- Prediction accurate?
- Take-Away fulfilled?
- Other suggestions for CCSS incorporation?
- Questions?

Contact

peter.turner@estrellamountain.edu
"I hear she likes apples so much she has core standards!"
References


