REACHING ALL LEARNERS: Common Core Tests For Students With Significant Cognitive Disabilities
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Reaching All Learners: Common Core Tests for Students With Significant Cognitive Disabilities

Expert Presenters:

Neal Kingston, project director, Dynamic Learning Maps

Rachel Quenemoen, project director, National Center and State Collaborative

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Tests Balance Common Core, Those With Cognitive Issues
Common-Core Tests in Works for Students With Severe Disabilities
An on-demand archive of this webinar will be available at www.edweek.org/go/webinar in less than 24 hrs.
Overview of The Dynamic Learning Maps Alternate Assessment System

Neal Kingston

Education Week Webinar

November 21, 2014
DLM State Membership Map and Portion of Mathematics Learning Map
LET’S START AT THE END: SCORE REPORTING
Susie's current performance in 3rd grade English language arts Essential Elements is summarized below. This information is based on all of the DLM tests she has taken between the beginning of the school year and January 23, 2015.

In order to master an Essential Element, a student must master a series of skills leading up to the specific skill identified in the Essential Element. This table describes what skills your child demonstrated in the assessment, and how those skills compare to grade level expectations.

This report does not show progress on all of Susie’s instructional goals. She may be taught other academic concepts that have not yet been tested. This report does not show progress on her IEP goals.

<table>
<thead>
<tr>
<th>Area</th>
<th>Grade Level Expectation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4 (Target)</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLM 3.1</td>
<td>Answer who and what questions to demonstrate understanding of details in a text.</td>
<td>Attend to object characteristics</td>
<td>Identify familiar people, objects, places, and events</td>
<td>Answer who and what questions and identify details in a familiar story</td>
<td>Answer who and what questions about story details</td>
<td>Answer who, what, when, and where questions about story details</td>
</tr>
<tr>
<td>DLM 3.2</td>
<td>Associate details with events in stories from diverse cultures.</td>
<td>Seek absent objects</td>
<td>Identify familiar people, objects, places, or events</td>
<td>Associate details with events in a familiar story</td>
<td>Associate details with events in diverse stories</td>
<td>Recount diverse stories with key details</td>
</tr>
<tr>
<td>DLM 3.3</td>
<td>Identify the feelings of characters in a story.</td>
<td>Identify feeling states in self</td>
<td>Identify feeling words</td>
<td>Identify the feelings of characters in familiar stories</td>
<td>Identify the feelings of characters in a story</td>
<td>Identify character feelings and relate to actions</td>
</tr>
<tr>
<td>DLM 3.5</td>
<td>Determine the beginning, middle, and end of a familiar story with a logical order.</td>
<td>Express interest in book sharing</td>
<td>Differentiate between text and pictures</td>
<td>Identify details and beginning and end of a story</td>
<td>Determine the beginning, middle, and end of a familiar story with a logical order</td>
<td>Identify beginning and end of a story</td>
</tr>
</tbody>
</table>

[Image]
Overall Results

Grade 3 English language arts allows students to show their achievement in 85 skills related to 17 Essential Elements. Susie has mastered 32 of those 85 skills during the 2014-15 school year. Overall, Susie’s mastery of English language arts fell into the second of five performance categories: emerging. The specific skills Susie has and has not mastered can be found in her Learning Profile.
Performance Profile
Conceptual Areas

- Determining critical elements of text: 43%
  - Susie mastered 17 of 40 skills

- Constructing understandings of text: 28%
  - Susie mastered 7 of 25 skills

- Integrating ideas and information from text: 40%
  - Susie mastered 4 of 10 skills

- Using writing to communicate: 40%
  - Susie mastered 4 of 10 skills
Performance Profile
Narrative

Performance Profile Continued

More information about Susie’s performance on each Essential Element is located in her Learning Profile.

Determining Critical Elements of Text
Susie is interested in shared reading. Susie understands actions that are part of routines familiar to her. Susie understands that words have meanings that relate to people and objects around her. Susie can identify characters’ feelings and illustrations in familiar texts.

Constructing Understandings of Text
Susie has shown that she can identify objects based on words that describe objects. Susie notices new things in her environment. Susie understands some feeling words.
What are the key features of DLM?

- Instructionally-embedded assessments
- Instructionally relevant testlets
- Fine-grained learning maps
- A subset of particularly important nodes that serve as content standards - Essential Elements
- Accessibility and alternate pathways
- Dynamic assessment
- Status and growth reporting that is readily actionable
- Professional development
- A technology platform to tie it all together
Why instructionally embedded?

• Instruction must drive assessment!
  – That can only occur if assessment is done at the right time
  – Also allows us to observe growth
What is instructional relevance?

- Instructionally Relevant Testlet
  - Reflects best instructional practice
  - Provides useful examples
  - Promotes the content standard being measured
  - Tests for common misunderstandings
  - Results inform instruction

- Better to modify the assessment to serve instruction than to modify the instruction to serve assessment

- Guiding principle - activities teachers would want to use for purely instructional reasons!
Instructional Tools Interface

4 steps
THE LEARNING MAP
A Portion of the Math Map
M.EE.6.RP.1: Demonstrate a simple ratio relationship.

**Initial**
- F-69 recognize wholeness
- M-43 recognize a unit
- M-561 recognize parts of a given whole or a unit

**Distal**
- M-971 generate ordered pairs from 2 distinct numerical patterns
- M-816 extend a number pattern by applying the rule
- M-373 model equal part

**Proximal**
- M-809 partition any shape into equal parts
- M-2533 explain unit fraction
- M-2411 recognize fraction

- M-1067 explain ratio

**Target**
- M-2625 recognize many to 1 ratio
- M-2626 represent many to 1 ratio

**Successor**
- M-2627 recognize many to many ratio
Quick Facts about the Map

**ELA**
- 141 foundational nodes
- 1,645 ELA nodes
  - 538 Essential Elements
- 3,982 edges/connections

**Mathematics**
- 141 foundational nodes
- 2,312 mathematics nodes
  - 172 Essential Elements
- 4,838 edges/connections
Learning Map

Claims

Conceptual Areas

Essential Elements

(and other nodes)
<table>
<thead>
<tr>
<th>Major Claims</th>
<th>Conceptual Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students can comprehend text in increasingly complex ways</td>
<td>Determining critical elements of text</td>
</tr>
<tr>
<td></td>
<td><strong>Constructing understandings of text</strong></td>
</tr>
<tr>
<td></td>
<td>Integrating ideas and information from text</td>
</tr>
<tr>
<td>Students can produce writing for a range of purposes and audiences</td>
<td>Using writing to communicate</td>
</tr>
<tr>
<td></td>
<td>Integrating ideas and information in writing</td>
</tr>
<tr>
<td>Students can communicate for a range of purposes and audiences</td>
<td>Using language to communicate with others</td>
</tr>
<tr>
<td></td>
<td>Clarifying and contributing to discussion</td>
</tr>
<tr>
<td>Students can investigate topics and present information</td>
<td>Using sources and information</td>
</tr>
<tr>
<td></td>
<td>Collaborating and presenting ideas</td>
</tr>
</tbody>
</table>
Constructing understandings of text
Feelings of Characters

ELA.EE.RL.3.3
Identify the feelings of the characters in a story

- Items Embedded and/or at Conclusion

- Items Embedded in Text

EE.RL.3.3-Identify the feelings of characters in a story.

- Initial Precursor
- Distal Precursor
- Proximal Precursor
- Target
- Successor
Structure of a Testlet

- Begins with engagement activity
  - Motivate students
  - Activate prior knowledge
  - Prepare for the cognitive process required in the items

- ELA: Text presented twice; questions embedded and at conclusion on 2nd read

- Math: series of questions or problems related to single topic
Initial Precursor (4th grade RI)

Educator Directions:

SHOW: one of the familiar, identical objects. Then give the student a moment to explore the object.
SHOW: the other familiar, identical object. Then give the student a moment to explore the object.
SHOW: a new or different object that was not used in the previous item.

Record student response:

- ☐ Attends longer to the new or different object
- ☐ Attends equally to all of the objects
- ☐ Attends only to familiar objects
- ☐ Attends to other stimuli
- ☐ No response

EE: Identify one or more reasons supporting a specific point in an informational text.
Node: Recognize different
Why do trees need water?

to grow

to move

to stretch

EE & Node: Identify the relationship between a specific point and supporting reasons in an informational text
THANK YOU!

For more information, please contact:

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or

Go to: www.dynamiclearningmaps.org

For Professional Development, contact:

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The present publication was developed under grant 84.373X100001 from the U.S. Department of Education, Office of Special Education Programs. The views expressed herein are solely those of the author(s), and no official endorsement by the U.S. Department should be inferred.
Reaching All Learners: College, Career, and Community Ready Tests for Students With Significant Cognitive Disabilities

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November 21, 2014
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NCSC Background

• In 2010, the U.S. Department of Education awarded the National Center and State Collaborative (NCSC) a grant to develop a new AA-AAS by the 2014-15 school year (states may have different implementation timelines)

• 24 states and five national organizations are working together as NCSC

http://www.ncscpartners.org

• NCSC is developing instructional resources and assessments (for math and ELA) based on Common Core State Standards (CCSS) that can be used in any state

https://wiki.ncscpartners.org
Theory of Action

Long-term goal:
To ensure that students with the most significant cognitive disabilities achieve increasingly higher academic outcomes and leave high school ready for post-secondary options.

A well-designed summative assessment alone is insufficient.

To achieve this goal, an AA-AAS system also requires:

- Curricular & instructional frameworks
- Teacher resources and professional development
NCSC Framework for Assessments, Curriculum and Instruction

• College and career readiness in the NCSC model also includes community readiness
• NCSC approach is to build assessments as a component of a broader system in which curriculum, instruction and assessments are closely linked
• NCSC has developed curriculum/instructional resources for teachers
• The framework is built on a foundation of communicative competence, so students have a reliable way to receive information from others and to show others what they know
College

Career

Community

Curriculum
Common Core State Standards
Learning Progressions
Core Content Connectors

Instruction
Grade-level Lessons
Accommodations
Systematic Instruction- carefully planned sequence for instruction (MASSIs/LASSIs)

Assessment
Formative (ongoing during school year, monitors learning)
Summative (end of year or course, evaluates learning)

Communicative Competence
Accessibility as central to our test validity argument

- Accessibility to the academic content begins with rigorous curriculum/instruction resources and training for teachers.
- A deep understanding of student needs informs design of NCSC resources to ensure inclusive accessibility and appropriately high expectations for learning, to mitigate “my kids can’t do that” excuses.
- Reviews of extant literature and best practices inform what students can achieve with reasonable opportunity to learn, but additional small trials and pilots of resources were done where research is thin, as “existence proofs”.
- Then, the NCSC assessments were based on same model of learning as reflected in the resources, building a path to success.
https://wiki.ncscpartners.org
Overview of the NCSC AA-AAS

• Assessments in Math and ELA, which includes both reading and writing, for grades 3-8 and 11
• 30-35 items for each subject, mostly selected response; one writing prompt per grade that accommodates multiple modes of expression
• Direct student interaction with online testing program or the teacher may print out testing materials and enter student responses into the computer
• Approximately 1.5 – 2 hours for each assessment (math and ELA), permitting smaller time slots over a 2 month period to meet the student’s needs
The Path to the NCSC AA-AAS Design: Evidence-Centered Design (ECD)

- **Conceptual phase**: Defining how the students and the content come together, in order to design the observations of their learning and to understand the range of student performance, with goal of developing a “family of items” across the range for each content target in the blueprint.

- **Design phase**: Development of design patterns and task templates that included extensive design information on content being measured for each item family; scripted administration protocols for each item within a family.

- **Existence proof phase**: Tryouts and revisions of every task template with real teachers and students, prior to developing item bank.

- **Iterative data-based checks throughout**: Student interaction studies (SIS); survey research; action research model tryouts with partner teachers; large-scale piloting; observations
Stakeholder/Expert Procedures: Developing the item bank based on ECD design patterns and task templates

• Item Writing Guidelines Documents: i. Visual supports; ii. Graphic style guide; iii. Editorial style guide; iv. Alternative text
• Item development and stakeholder review: a. Item and passage development process; b. Item review process - i. Content, ii. Bias/sensitivity; c. APIP/UDL review
• Item data review: Pilot 1 (Spring 2014) generated item statistics, validating design model and fostering final item revisions
• Final comprehensive review: Pilot 2 (Fall 2014)
Policies and training on additional needs

- Accommodations Committee, policies, training
- Online system accessibility designed with Assistive Technology in mind
- Accessibility Committee:
  a. Analysis of item bank for sensorimotor barriers
  b. Expert panel with stakeholder input, redesign of items and item protocols
  c. Design of Pilot 1 and Pilot 2 studies
  d. Tryouts with teacher/school partners
  e. Final *Additional Procedures Guidance*, special form, Braille items
Item Statistics from Pilot 1: Support for evidence-centered design of item bank

- About 75% of the assessment items are closely linked to the grade-level content based on student observations under known opportunity to learn; about 25% are a farther link to the grade-level content to allow students who are just beginning to work with the academic content show what they know and can do.
- Pilot 1 item statistics suggest that the range of item difficulty was as expected from easy to hard items, with higher success rates than anticipated across the full range of items, controlling for learner characteristics. Stage-adaptive testing options are being finalized in Pilot 2.
- There are policies and criteria for dealing with rare situations where it may not be appropriate to administer or continue an assessment. When these policies are used there are requirements for data collection in order to flag the need for interventions to address unmet needs (e.g., related services or instructional supports).
- Pilot data on early stopping of testing thus far varies across states, but on average is consistent with baseline learner characteristics data for students who do not as yet have a consistent mode of communication (i.e., have no way to respond).
Cognitive Labs (SIS Studies) teacher on item difficulty: “

“They were very easy for him to follow along. In fact I thought a couple of them he probably could have read [himself]... I felt like it was pretty much on target. You’ve got some that are kind of easy, so that to me was helping him build his confidence. I’m sorry, I get so emotional, I’m just thinking – this is what I want for my kids! Then you have something that’s a little harder, a little more challenging, and he was willing to keep rolling with it. Whereas if you hit them right off with something hard, our kids will get discouraged and they may not put forth the effort, and we want them to put forth the effort to finish the test, because we want to see where they are so we can meet those needs. So I thought it was a great variety... You all saw, when he walked away he was feeling good.”
SIS teacher on the cognitive processes targeted by the items:

“What [the test] asked was really reinforcing what he’s learning and the way that he’s learning throughout the year in all of the classes with reading. I felt like it was right on target with how he processes information and how he’s being taught.”

“I think the responses were good, because they weren’t confusing. They stuck to the text… I think the pictures helped. You know it’s hard for our kids who don’t read. They need the pictures.”
Functional, social, and academic goals merged

- NCSC professional development and materials have encouraged bridging the gap between a traditionally exclusively functional curriculum to providing my students with more opportunities to access the general education curriculum. Teacher comments taken from 2014 External Evaluation of NCSC Classroom Resources

- I just need to share some successes with The Pearl and Marcelo in the Real World LASSIs [Language Arts Activities for Scripted Systematic Instruction]. A non-verbal freshman student came to us with functional goals: matching, identifying common objects. She is not only doing those things, but is answering all of the questions on both LASSIs using the visuals with 80-100% accuracy with no prompting. I have never been so happy to rewrite an IEP in my life. Submitted by teacher in NCSC state

- I like how the standards and activities that are being developed tie in real world activities and examples. Teacher comments taken from 2014 External Evaluation of NCSC Classroom Resources
Higher expectations, higher achievement

- Through the initial training I received I have changed my whole classroom philosophy. I have always set high expectations for my students and this training just raised the bar.
- Gives the students a sense of achievement when they do well and are able to answer the questions.
- I expanded my professional knowledge, including the impact of challenges that could be faced by some of my students when they get older and make slower progress in the general curriculum.
- Students are now being challenged with higher curriculum.
- Students performed better during the alternate assessment exams. They were more focused during the lessons and were able to monitor their own progress to some extent.

Teacher comments taken from 2014 External Evaluation of NCSC Classroom Resources
Recommendations from: *A brief history of alternate assessments based on alternate achievement standards.* Quenemoen, R. (2008)

**Transparency.** We need to know what varying practices and targets yield for student outcomes by ensuring that assessment development, implementation, and results are transparent and open to scrutiny.

**Integrity.** Flexibility can mask issues of teaching and learning unless it is carefully structured and controlled. Similarly, standardization as a solution risks reducing the integrity of the assessment results when the methods do not match the population being assessed and how that population demonstrates competence in the academic domains.

**Validity studies.** We have an obligation to monitor carefully the effects of alternate assessments over time, as well as to ensure the claims we are making for the use of the results are defensible.

**Planned improvement over time.** In building a validity argument, we study whether the interpretations and uses of the test are defensible, and whether consequences that are hoped for and those that are to be avoided are in fact falling into their respective places.
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Required Reading from *Education Week*:

**Free download!**

*[Spotlight on Special Education and the Common Core]*

See how alternative assessments are being field-tested, understand how testing accommodations differ between common-assessment groups, and examine the struggles to align individualized education plans with the common core.