NCSC Summative Assessment
Overview

June 17, 2013
TILSA SCASS

The contents of this product were developed under a grant from the Department of Education (PR/Award #: H373X100002, Project Officer, Susan.Keigert@Ed.gov). However, the contents do not necessarily represent the policy of the Department of Education and no assumption of endorsement by the Federal government should be made.
NCSC Theory of Action

Long-term goal:
To ensure that students with 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 Overall Timeline January 2011-October 2015

Year 1 (2011): Content Model Phase: Define model of domain learning in math/ELA for these students, identify prioritized content for assessment

Year 2 (2012): Principled Design Phase: Design Patterns, Task Templates, C/I/PD design and pilot; Technology architecture design

Year 3 (2013): Item and Test Development Phase: Task Template Tryouts, Item Specs/item development/item reviews, Student Interaction Studies (SIS), Draft grade level PLDs, finalize pilot/field design, Tech build

Year 4 (2014): Pilot, Field, Research Phase:
   – Pilot Phase 1: National Sample, generate item statistics Winter/Spring 2014, Finalize blueprints, revise items, assemble forms
   – Phase 2: Field Test Forms Fall 2014, finalize administration training and supports

Year 5 (2015): Operational administration of NCSC assessments
   – Summer 2015: Set Standards
   – Fall 2015: Technical reporting complete
General Description of Assessment System

• Within year classroom assessments and progress monitoring tools embedded in model curricula materials; professional development on demand modules for teachers to learn to develop their own (WIKI, LMS) making use of content, curriculum, instruction tools

• Summative math and ELA tests for 3-8, 11 administered in a 2 month window in winter/spring

• Up to 30 items, 1.5-2 hours per test anticipated

• Technology delivery, teacher test facilitator/administrator; universal design features and accommodations guidelines derived from Design Pattern/Task Templates Tryouts and Student Interaction Studies
Assessment Administration

• Assessments will be presented via computer with the ambition of flexibility for presentation on devices/platforms (e.g. tablets).
• It is expected that most students will interact with an examiner during the administration. Other students may respond to the test items directly via interaction with computer presentation.
• Prior access to summative content will be provided to support examiners preparation for accommodations/adaptations.
• For most students, it is expected that testing time will be no more than approximately 1.5 to 2 hours per content area, divided between at least two sessions with flexibility to stop and resume.
  – Some students will qualify to take a shorter assessment based on evidence collected before and during the assessment.
Item Types

- Approximately 2/3 (20) of the items will be machine-scored, multiple choice.
- Approximately 1/3 (10) of the items will require human scoring - evaluation of student work with respect to a scoring rubric.
  - Approximately 2/3 (7) of the human scored items will be evaluated by the examiner during the assessment.
  - Approximately 1/3 (3) of the human scored items will be scored externally. This may be accomplished through a single centralized scoring center or via distributed scoring that meets established criteria.
Assessment Outcomes

• Outcomes will include a total score and performance level for each of mathematics and ELA, which will combine reading and writing.

• Separate information for writing will be produced, such as a raw score and/or narrative description of student performance.

• At the total score level for each content area, scores will be comparable within year and across years.
Assessment Design Illustration

Pre-Session
Prior to testing, educators input learner characteristic and/or performance data into the system.

Preliminary Items:
One or two sample items immediately prior to the assessment to promote familiarity and engagement.

Session IA
Start with a small number of items at a low level of complexity.

If student is not responsive and evidence from both pre-session and preliminary items indicates meaningful interaction with the assessment is unlikely, the early stopping rule is invoked. Student is classified in performance level 1.

Session 1 Continued
Broad representation of content across full range of complexity and difficulty.

Session 2A
Broad distribution of content, but heavier emphasis on items with lower levels of complexity and difficulty.

Session 2B
Broad distribution of content, but heavier emphasis on items with higher levels of complexity and difficulty.
## Blueprint Illustration - Grade 3 Math

### Sample Target Distribution of CCCs by Type and Level - 3rd Grade Math

<table>
<thead>
<tr>
<th>Emphasis</th>
<th>Domain</th>
<th>CCC(s)</th>
<th>Target by Item Type (Levels)</th>
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</thead>
<tbody>
<tr>
<td>10%</td>
<td>Geometry</td>
<td>3.GM.1i1</td>
<td>SR 2 (1-3)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Multi-SR 1 (4)</td>
</tr>
<tr>
<td>20%</td>
<td>Measurement and Data</td>
<td>3.ME.1d2</td>
<td>SR 3 (1-4)</td>
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<tr>
<td></td>
<td></td>
<td>3.DPS.1g1</td>
<td>Multi-SR 2 (2-4)</td>
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<tr>
<td>20%</td>
<td>Number and Operations Fractions</td>
<td>3.SE.1g1</td>
<td>SR 3 (1-4)</td>
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<tr>
<td></td>
<td></td>
<td>3.NO.1l3</td>
<td>Multi-SR 3 (1-4)</td>
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<tr>
<td>20%</td>
<td>Numbers and Operations Base Ten</td>
<td>3.NO.1j3</td>
<td>SR 3 (1-4)</td>
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<tr>
<td></td>
<td></td>
<td>3.NO.2c1</td>
<td>Multi-SR 1-2 (1-2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CR 1-2 (3-4)</td>
</tr>
<tr>
<td>30%</td>
<td>Operations and Algebraic Thinking</td>
<td>3.PRF.2d1</td>
<td>SR 3 (1-4)</td>
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<td></td>
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<td>3.NO.2d3</td>
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<td></td>
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<td>3.NO.2e1</td>
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## Item Development

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<th>Grade</th>
<th>Number of Tasks</th>
<th>Number of Levels/Tiers</th>
<th>Number of Items per Level/Tier for each Task</th>
<th>Total ELA Items</th>
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<tr>
<td>HS</td>
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### Math

<table>
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<th>Grade</th>
<th>Number of Tasks</th>
<th>Number of Levels/Tiers</th>
<th>Number of Items per Level/Tier for each Task</th>
<th>Total Math Items</th>
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</tbody>
</table>

**Grand Total**: 2240 TILSA June 2013
Student Interaction Studies

• In Fall 2013 the project will implement a series of focused studies to inform ongoing development.

• Research focus includes:
  – Investigate student response processes for those students who communicate symbolically in regards to expressive language and receptively
  - Investigate interaction for students with exceptionalities such as vision, hearing, or both to better understand the need for additional supports to improve access.
Pilot Test – Spring/ Fall 2014

• Phase I: Items will be administered broadly in a ‘matrix’ design for the primary purpose of evaluating item performance and developing bank calibrations.

• Phase II: Drawing on the item calibrations from phase I, intact form/sessions will be constructed and administered. By so doing, these forms will be built to meet psychometric targets and a decision rule governing progression from session one to two can be applied.
Census Testing – Spring 2015

• Full operational assessment in the spring of 2015
• Standard setting will be conducted based on results in summer 2015
• Reports and technical documentation will be produced
Summative Assessment Products Following Grant

At the end of the project’s grant funding by fall 2015, states will have:

• A minimum of two forms per grade and content area suitable for future operational use.
  – Information necessary to direct presentation of content in such a manner as to honor the test specifications, blueprints, and psychometric targets for the assessment.
  – Algorithms, rules, and/or tables necessary to produce overall scale scores and performance levels.
  – Rubrics for all human scored items as well as protocols for training scorers and implementing the scoring process.

• Design specifications for all static reports produced to include individual student reports.

• Ancillary material to support administration of summative assessment to include test administration manuals, resources to support training of test examiners, and score interpretation guide.

• Detailed technical documentation of process, procedures, and results from all test development activities.

• All test items developed for the NCSC assessments (i.e. the item bank) will be made available in a format that meets industry standards for interoperability.

• Specifications for certification and implementation of the technology system and training resources.