Purpose: This document represents the key activities of the Smarter Balanced Assessment Consortium. For each activity, the document provides the “expected outcome” and “scope parameters.” As this document is a narrative of the Master Work Plan, it does not include components such as roles and responsibilities and dependencies. This information is contained in the detailed project plan maintained by the Project Management Partner.

Audience and Usage: The primary audiences for this document include Smarter Balanced Governing and Advisory State members, key external stakeholders, and prospective vendors. It is intended to be used to ensure common understanding of the Consortium’s work plan. Once consensus is reached on the Summative Assessment Work Plan, the results will be used to build the work plans for the other components of the Smarter Balanced assessment including the interim assessment, formative processes and tools, professional development, and transition to Common Core support.

Document Structure: This document contains Master Work Plan information at three levels of detail:
- Level 0 (shaded in tan) – Represents the key areas of work that are necessary for the development of the summative assessment
- Level 1 (shaded in light blue) – Represents the key activities for each Level 0 area of work
- Level 2 (shaded in white) – Represents scope parameters of the Level 1 activities

Definitions:
- **Expected Outcome** – A description of the products that will be created and/or the activities that will be completed at the conclusion of the Level 1 activity.
- **Scope Parameters** – These bulleted items are intended to provide additional clarity regarding the expected outcome of the activity. Scope parameters are subject to change based upon feedback from stakeholders and/or solutions proposed by service providers.

Version:
- The MWP Narrative was unchanged v.4.1.1 to 4.2. Version 4.2 changes are reflected in the schedule listed in the MWP Overview.
# Master Work Plan Narrative – Summative

Version 4.1.1 as of 09/12/2011 and Version 4.2 as of 02/06/2012

## Assessment Design

<table>
<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Conduct Initial Analysis of the Content and Structure of the Common Core State Standards</td>
<td><strong>Expected Outcome:</strong> Initial analysis of how each standard within the CCSS could be assessed in terms of item/task(^1) type and depth of knowledge. Intended to support content and curriculum specialists and test and item/task development experts. <strong>Scope Parameters:</strong> - Analysis and recommendations for all English language arts and mathematics standards in grades 3–8 and high school - Multiple levels of review, including Smarter Balanced Technical Advisory Committee, Smarter Balanced member states, and Smarter Balanced Executive Committee</td>
</tr>
<tr>
<td>2</td>
<td>Develop Content Specifications for ELA and Mathematics</td>
<td><strong>Expected Outcome:</strong> Content specifications (claims, inferences, and evidence), item/task development criteria, and sample item/task sets. Intended to support the development of test blueprints and test specifications. <strong>Scope Parameters:</strong> - Key constructs underlying each content area are identified to allow for the prioritization of critical standards/strands in terms of demonstrating evidence of learning - Standards are bundled based on “bigger ideas” within the CCSS examples of item/task prototypes (one item family per elementary, middle, and high school grade-level cluster for ELA) illustrating summative assessment items/tasks with implications for instructional supports (formative assessments) - Standards and bundled standards that require measurement through non-selected-response (e.g., innovative item types) are identified - Reviews by CCSS authors, content experts, and assessment specialists</td>
</tr>
</tbody>
</table>

\(^1\)Unless otherwise specified, Smarter Balanced item types include selected-response, constructed-response, technology-enhanced, and performance task items.

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**NOTES:**
- Scope is subject to change.
- Related materials include a vendor procurement schedule, as well as project schedules in MS Excel and MS Project formats.
### Master Work Plan Narrative – Summative

Version 4.1.1 as of 09/12/2011 and Version 4.2 as of 02/06/2012

<table>
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<tr>
<th>ID</th>
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<th>Expected Outcome</th>
<th>Scope Parameters</th>
</tr>
</thead>
</table>
| 3  | Develop Accessibility and Accommodations Policy Guidelines                 | Guidelines that describe the accessibility and accommodations framework and related policies for test participation and administration.                  | - State survey and review of best practices  
- Review and recommendations on the use of assessment technology  
- Framework of accessibility strategies and accommodations  
- Assessment participation and procedures (including the determination of allowable accommodations)  
- Form and gain input from English Language Learners Advisory Panel  
- Form and gain input from Students with Disabilities Advisory Panel  
- Review and revise throughout scope of project incorporating Evidence-Based Design principles and outcomes from small-scale trials  
- Determine item portability standard solution |
| 4  | Develop Item and Task Specifications                                       | Definition of Smarter Balanced item/task type characteristics sufficient to ensure content measures the intent of the CCSS and consistency across item/task writers and editors. | - Item types include selected-response, constructed-response, technology-enhanced, performance tasks  
- Passage/stimulus specifications (e.g., length, complexity, genres) included  
- Scoring rubric specifications for each item/task type included  
- Document revision management/tracking  
- Item portability specifications included  
- Specifications for developing items for special forms (e.g., Braille) included |

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### Master Work Plan Narrative – Summative

Version 4.1.1 as of 09/12/2011 and Version 4.2 as of 02/06/2012

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<tr>
<th>ID</th>
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</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Develop Test Specifications and Blueprints</td>
</tr>
</tbody>
</table>

**Expected Outcome:** Definition of test form components (e.g., number of items/tasks, breadth and depth of content coverage) necessary to consistently build valid and reliable test forms that reflect emphasized CCSS content.

**Scope Parameters:**
- Specifications include, but are not limited to, details on the following:
  - Purpose, use, and validity claims of each test
  - Item/Task Attributes
  - Form Attributes
  - CAT Attributes
- Review and revise based on Computer Adaptive Testing simulation studies, small-scale trials, Pilot and Field Testing, and other information as necessary

| 6  | Develop Initial Achievement Level Descriptors |

**Expected Outcome:** Achievement expectations for mathematics and ELA will be described in a document that students, educators, and parents can understand.

**Scope Parameters:**
- Determine panel nomination process
- Recruit panelists
- Convene panel
- Engage Institutes of Higher Education and Cross-Consortia Technical Advisory Committee in defining College and Career Readiness
- Period for public comment
- Various levels of review required (including the Smarter Balanced Technical Advisory Committee and select focus groups)
- Document will be distributed to a variety of assessment constituents
- Approval by Governing States
- Coordinate activities with PARCC consortium

**NOTES:**
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# Writing of Items and Tasks

<table>
<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
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<tbody>
<tr>
<td>7</td>
<td>Develop Item and Task Prototypes</td>
</tr>
<tr>
<td>8</td>
<td>Write Item and Performance Task Style Guide</td>
</tr>
</tbody>
</table>

### Develop Item and Task Prototypes

**Expected Outcome:** Prototype items and tasks illustrate the assessment of bundled content using Access and Universal Design principles.

**Scope Parameters:**
- Principles of Access will drive the process to maximize fairness and minimize bias
- Principles of Evidence-Based Design will be used to review and revise prototypes
- Recommendations on how best to measure standards or bundled standards for innovative item types (per content specifications)
- Prototypes include scoring guides
- Prototype item types include selected-response, constructed-response, performance tasks
- Prototypes are annotated, describing key features of items/tasks and scoring guides
- Passage/stimulus specifications (e.g., length, complexity, genres) included
- Scoring rubric guidelines for each item/task type included
- Review, feedback, and revision based on educator focus groups and stakeholders, Smarter Balanced work groups, and Smarter Balanced English Language Learners and Students with Disabilities Advisory Panels

### Write Item and Performance Task Style Guide

**Expected Outcome:** Style guide specifies item/task formatting sufficient to ensure consistency of item/task formatting and display.

**Scope Parameters:**
- Style guide will minimally specify the following:
  - Font
  - Treatment of emphasized language/words (bold, italics)
  - Screen display specifications
  - Constraints on image size, resolution, colors
  - Passage/stimulus display configuration
  - Style guide document will be comprehensive of online and paper style requirements for all item types (selected-response, constructed-response, technology-enhanced, performance tasks)

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**NOTES:**
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## Master Work Plan Narrative – Summative

**Version 4.1.1 as of 09/12/2011**

and **Version 4.2 as of 02/06/2012**

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<tr>
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</thead>
<tbody>
<tr>
<td>9</td>
<td>Develop Accessibility Guidelines for Item and Task Development</td>
</tr>
</tbody>
</table>

**Expected Outcome:** Guidelines for item and task writing/editing that ensure accessibility of assessed content.

**Scope Parameters:**
- Guidelines will address all item types (selected-response, constructed-response, technology-enhanced, performance tasks)
- Determine interoperability standards at the item and test level
- Guidelines for item development using the interoperability standards
- Review, feedback, and revision based on educator focus groups, Smarter Balanced work groups, and Smarter Balanced English Language Learners and Students with Disabilities Advisory Panels

| 10 | Develop and Distribute Item/Task Writing Training Materials |

**Expected Outcome:** Training materials that specify the consistent use of item/task specifications, style guides, accessibility guidelines, and best practices in item/task development (e.g., Universal Design, bias and sensitivity concerns) sufficient to ensure valid and reliable items/tasks that are free from bias and maximize accessibility to assessed content.

**Scope Parameters:**
- Item/task writing and editing training process and related documents
- Item/task writing and editing training developed to be online modules that enable writers and editors to receive training remotely at any time
- Establish item writer and editor qualifications
- Develop quality control procedures to ensure item writers are adequately trained

| 11 | Review and Vet State-Submitted Items and Tasks for Inclusion in Smarter Balanced Item Pool |

**Expected Outcome:** State-submitted items/tasks reviewed for inclusion in Pilot and/or Field Test item bank using the item bank/authoring system.

**Scope Parameters:**
- Develop submission and review protocol
- Collect state-submitted items/tasks for potential use in Pilot or Field Test
- Review items/tasks for alignment, appropriateness (including access), and bias and sensitivity
- Provide feedback to states on disposition of submitted items/tasks
- Conduct gap analysis to determine item/task procurement needs
<table>
<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
<th>Expected Outcome</th>
<th>Scope Parameters</th>
</tr>
</thead>
</table>
| 12 | Write Pilot Test Items and Tasks            | Items/tasks written by vendors and teachers, and provided through state submissions and edited in sufficient quantity to support Pilot Testing. This process may involve multiple vendors, either by item type or content area. | • Determine the number of items/tasks needed for the pool by type, content, and cognitive complexity for each grade and content area  
• Determine state-level and Consortium-level leadership in item/task writing/editing process  
• Determine distribution of content and grade level across states in item/task writing/editing process  
• Secure and track necessary permissions  
• Include automated scoring considerations in the item/task writing process                                                                 |
| 13 | Develop Innovative Item and Task Types      | Items/tasks that measure content and aspects of content acquisition (that have historically been difficult to measure in large-scale assessment; e.g., synthesis and application of content) and/or lead to increased measurement precision. Items and tasks will maximize measurement validity and reliability while minimizing testing system impact and burden on students. | • Develop specifications for computer-based and paper-based formats  
• Develop and review multiple prototypes  
• Cognitive labs for new item/task types  
• Process includes repeated interaction between client and service provider  
• Phased development:  
  – Early exploratory phase  
  – Revisions based on item trials and Pilot Testing |
### Plan and Conduct Small-Scale Trials of New Item and Task Types

**Expected Outcome:** Small-scale trials of new item/task types to inform potential revision of item/task specifications and style guides.

**Scope Parameters:**
- Sampling plan for trials
- Trials are intended to involve about one hundred students per item/task
- Process for recruiting schools for participation
- Cognitive labs for new item/task types
- Teacher Surveys (including survey creation, distribution, analysis, reporting, and communication)
- Reports containing clear recommendations for revisions to item/task specification
- Small-scale trials reflect an iterative development process, such that recommended revisions are evaluated/validated as improvements
- Use trials as an opportunity to explore access issues

### Develop Initial Automated Scoring Approach

**Expected Outcome:** The initial automated scoring methodology (e.g., regression, rules-based, or hybrid) based on information from the content specification, item/task specifications, item/task prototypes, and response data from the small-scale item/task trials.

**Scope Parameters:**
- Report documenting analysis and empirically based approach recommendations
- Independent review of analysis and recommendations
- Consultation, review, and approval of recommendations by Smarter Balanced Technical Advisory Committee
- Range-finding activity to calibrate automated scoring engine

### Develop Smarter Balanced Item and Task Writing Participation Policies and Guidelines

**Expected Outcome:** Ongoing documentation of processes for Smarter Balanced member states and stakeholders to be involved in Smarter Balanced item/task writing activities (e.g., Content and Bias/Sensitivity, Data Review, Pilot Testing, Field Testing).

**Scope Parameters:**
- Criteria for selecting committee members (e.g., regional representation, expertise, experience)
- Participation policy consistent with related assessment development requirements (e.g., sampling plan)
- Participation policy document, including confidentiality and security agreements policies
- Document participation (consistent with requirements needed for technical manuals and peer review)

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**NOTES:**
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## Master Work Plan Narrative – Summative

**Version 4.1.1 as of 09/12/2011**
and **Version 4.2 as of 02/06/2012**

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<th>ID</th>
<th>Task Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>Develop Content and Bias/Sensitivity Pilot Item and Task Review Materials</td>
</tr>
<tr>
<td></td>
<td><strong>Expected Outcome:</strong> Meeting materials will ensure consistent training for content and bias review committees and meeting logistics guidelines.</td>
</tr>
<tr>
<td></td>
<td><strong>Scope Parameters:</strong></td>
</tr>
<tr>
<td></td>
<td>● Recruit review committee consistent with Smarter Balanced activities participation policies</td>
</tr>
<tr>
<td></td>
<td>● Determine criteria for decision-making regarding feedback received</td>
</tr>
<tr>
<td></td>
<td>● Committee and facilitator training process and related documents</td>
</tr>
<tr>
<td></td>
<td>● Committee and facilitator training presentation materials (training delivery occurs as part of the meeting scope)</td>
</tr>
<tr>
<td>18</td>
<td>Conduct Content and Bias/Sensitivity Reviews of Passages and Stimuli</td>
</tr>
<tr>
<td></td>
<td><strong>Expected Outcome:</strong> Feedback from educators and other stakeholders regarding passage/stimulus accuracy, alignment, appropriateness, accessibility, conformance to passage/stimulus specifications and style guides, and potential bias and sensitivity concerns.</td>
</tr>
<tr>
<td></td>
<td><strong>Scope Parameters:</strong></td>
</tr>
<tr>
<td></td>
<td>● Face-to-face or online meetings of representative educators and other stakeholder committees</td>
</tr>
<tr>
<td></td>
<td>● Educator feedback is documented and stored for future use</td>
</tr>
<tr>
<td></td>
<td>● Feedback reconciliation review as required</td>
</tr>
<tr>
<td>19</td>
<td>Conduct Content and Bias/Sensitivity Pilot Item and Task Review Meeting</td>
</tr>
<tr>
<td></td>
<td><strong>Expected Outcome:</strong> Feedback from educators and other stakeholders regarding item/task accuracy, alignment, appropriateness, accessibility, conformance to item/task specifications and style guides, and potential bias and sensitivity concerns. Review includes all aspects of items/tasks (stem, answer choices, art, scoring rubrics).</td>
</tr>
<tr>
<td></td>
<td><strong>Scope Parameters:</strong></td>
</tr>
<tr>
<td></td>
<td>● Face-to-face or online meetings of representative educators and other stakeholders committees</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>● Feedback reconciliation review as required</td>
</tr>
</tbody>
</table>
## Task Name

### Revise Pilot Items and Tasks Based on Content and Bias/Sensitivity Committee Feedback

**Expected Outcome:** Fully edited items/tasks available to be included on Pilot Test forms.

**Scope Parameters:**
- Convene educators and other stakeholders to review committee feedback
- Training of state-level staff to edit and improve items/tasks (in collaboration with vendor)
- Multiple rounds of editing
- Edits include all aspects of items/tasks (e.g., art, scoring rubrics)
- Determine and implement final review/approval process by Smarter Balanced

### Write Field Test Items and Tasks

**Expected Outcome:** Items/tasks written by vendors, teachers, and provided through state submissions and edited in sufficient quantity to support the Field Testing and the final item pool. This process may involve multiple vendors, either by item type or content area and will constitute the vast majority of item/task writing for the assessment system.

**Scope Parameters:**
- Item/task writers and editors will be required to meet qualification standards
- Item/task editing will include reviews for:
  - Content accuracy
  - Alignment
  - Accessibility and Universal Design
  - Appropriateness
  - Bias/sensitivity
  - Conformance to item/task specifications and style guides
  - Best practices in item/task development
- Determine the number of items/tasks needed for the pool by type, content, and cognitive complexity for each grade and content area
- Determine the extent of state-level leadership or Consortium-level leadership in item/task writing/editing process
- Determine distribution of content and grade level across states in item/task writing/editing process
- Secure and track necessary permissions

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**NOTES:**
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</thead>
<tbody>
<tr>
<td>22</td>
<td>Develop Translation Framework and Specifications Languages</td>
</tr>
</tbody>
</table>

**Expected Outcome:** Definitions of item/task translation activities that ensure consistent and valid translation processes consistent with Smarter Balanced policy.

**Scope Parameters:**
- Determine translation process
- Determine administration implications
- Review and approval of process by ELL Advisory Panel

| 23 | Translate Pilot and Field Test Items and Tasks into Identified Languages |

**Expected Outcome:** Translated items/tasks written by vendors, teachers, or provided through state submissions are edited in sufficient quantity to support Pilot, Field Testing, and operational assessment.

**Scope Parameters:**
- Translated items/tasks must be formatted to upload into the Smarter Balanced item authoring system
- Items/tasks will include full array of Smarter Balanced item types (selected-response, constructed-response, technology-enhanced, performance tasks)
- Review for content and bias/sensitivity of item/tasks and passages/stimuli

| 24 | Develop Content and Bias/Sensitivity Field Test Item and Task Review Materials |

**Expected Outcome:** Meeting materials that ensure consistent training for content and bias review committees and meeting logistics guidelines.

**Scope Parameters:**
- Recruit review committee consistent with Smarter Balanced activities participation policies
- Determine criteria for decision-making regarding feedback received
- Committee and facilitator training process and related documents
- Committee and facilitator training presentation materials (training delivery occurs as part of the meeting scope)

| 25 | Conduct Content and Bias/Sensitivity Field Testing Item and Task Review Meeting |

**Expected Outcome:** Feedback from educators and other stakeholders regarding item/task accuracy, alignment, appropriateness, accessibility, conformance to item/task specifications and style guides, and potential bias and sensitivity concerns. Review includes all aspects of items/tasks (stem, answer choices, art, scoring rubrics).

**Scope Parameters:**
- Face-to-face or online meetings of representative teacher committees
- Meetings include review of translated items/tasks
- Educator feedback is documented and stored for future use
- Feedback reconciliation review as required
### ID | Task Name
---|---
26 | Revise Field Test Items and Tasks Based on Content and Bias/Sensitivity Committee Feedback

*Expected Outcome:* Fully edited items/tasks available to be included on Field Test forms.

*Scope Parameters:*
- Identify and convene review panels
- Training of state-level staff to edit and improve items/tasks (in collaboration with vendor)
- Edits include all aspects of items/tasks (e.g., art, scoring rubrics)
- Multiple rounds of editing, including all aspects of items/tasks (e.g., art, scoring rubrics)
- Determine and implement final review/approval process by Smarter Balanced

#### Pilot Testing

27 | Develop Pilot Testing Deployment Plan

*Expected Outcome:* Document that describes key steps to launching the Pilot Test administration.

*Scope Parameters:*
- Sampling plan
- School- and district-level participation guidelines
- Develop test cases for Smarter Balanced-supported technology clients and network configurations
- Administration Communication Plan
- Administration and Participation Policies (e.g., Accommodations policies, improprieties, training, ticketing)
- Scoring Plan and Schedule
- Online Test Administration Guidelines (including minimum technology requirements for administration)
- Paper Test Administration Guidelines (if necessary)

NOTES:
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<tbody>
<tr>
<td>28</td>
<td>Develop Pilot Test Administration Materials</td>
</tr>
</tbody>
</table>

**Expected Outcome:** All documents that support the administration and/or tracking of administration materials and administration guides that provide clear direction on all aspects of Pilot Test administration. Materials will standardize test administration to be consistent with test administration policy.

**Scope Parameters:**
- Development and deployment of test delivery training modules (online modules that mimic the test delivery application to allow students and test administrators to become familiar with the test delivery interface)
- Test Administration Manuals (e.g., TCM, TAM)
- Test Administration Training Materials
- Paper-and-Pencil Administration Documents (if needed)
- Technical and Administration Support Materials
- Accommodations and Participation Guidelines (including performance tasks administration)

| 29 | Select Items and Tasks for Pilot Test Forms |

**Expected Outcome:** Pilot forms that represent test blueprints, test specifications, and sampling plan (paper-and-pencil forms contingent on policy decision).

**Scope Parameters:**
- Pilot forms will be fixed-form (not adaptive)
- All item types are included in Pilot Test forms (selected-response, constructed-response, technology-enhanced, and performance tasks)
- Pilot Test items/tasks will be selected for online and paper (if necessary) forms
- Specifications for development of Pilot forms

| 30 | Load and Review Pilot Test Items and Tasks |

**Expected Outcome:** Pilot items/tasks are loaded and display as intended in the Pilot Test Delivery System.

**Scope Parameters:**
- Load items/tasks selected for Pilot Test forms into the Pilot Test Delivery System
- Items/tasks reviewed by content specialists and special populations experts to verify display fidelity
- Items/tasks and application are reformatted as necessary to ensure correct display

**NOTES:**
- Scope is subject to change.
- Related materials include a vendor procurement schedule, as well as project schedules in MS Excel and MS Project formats.
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<tr>
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</thead>
<tbody>
<tr>
<td>31</td>
<td><strong>Conduct Pilot Assessment System Integration Testing</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Expected Outcome:</strong> Testing of all materials and administration systems reveals errors and/or issues that require resolution prior to Pilot Testing, and materials and/or systems are modified as necessary.</td>
</tr>
<tr>
<td></td>
<td><strong>Scope Parameters:</strong></td>
</tr>
<tr>
<td></td>
<td>- Solicitation and participation process (definition and implementation)</td>
</tr>
<tr>
<td></td>
<td>- Conduct end-to-end mock Pilot Test (including all testing materials, testing application, and scoring)</td>
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<tr>
<td></td>
<td>- Code or material modifications are verified through additional end-to-end testing</td>
</tr>
<tr>
<td>32</td>
<td><strong>Pilot Testing Administration</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Expected Outcome:</strong> Online and paper administration of Smarter Balanced items/tasks in sufficient quantity and with sufficient test delivery platform stability to evaluate the adequacy and areas for improvement in items/tasks, forms, test specifications, test administration materials, school and district preparation needs, test delivery, and scoring application deficits.</td>
</tr>
<tr>
<td></td>
<td><strong>Scope Parameters:</strong></td>
</tr>
<tr>
<td></td>
<td>- Online and secure</td>
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<td></td>
<td>- Minimal burden on states for administration registration</td>
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<td></td>
<td>- All administration materials available to participating states</td>
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<td></td>
<td>- Technical and administration support</td>
</tr>
<tr>
<td></td>
<td>- Administration participation monitoring, tracking, and reporting</td>
</tr>
<tr>
<td></td>
<td>- Paper option available (if necessary and contingent on policy decision)</td>
</tr>
<tr>
<td>33</td>
<td><strong>Score Pilot Test Responses</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Expected Outcome:</strong> Student responses are scored for all item/task types sufficient to identify problems with scoring applications, scoring rubrics, automated scoring, and/or items/tasks.</td>
</tr>
<tr>
<td></td>
<td><strong>Scope Parameters:</strong></td>
</tr>
<tr>
<td></td>
<td>- Integration of scored responses into Item/Task by Student matrix</td>
</tr>
<tr>
<td></td>
<td>- Includes requirements for performance scoring (everything except selected-response)</td>
</tr>
<tr>
<td></td>
<td>- Scoring output will be integrated with reporting applications</td>
</tr>
<tr>
<td></td>
<td>- Scoring includes scoring reliability, throughput, and other agreed-upon metrics to verify score accuracy</td>
</tr>
<tr>
<td></td>
<td>- Scoring includes analysis and revision of identified scoring problems (including scoring rubrics and algorithms)</td>
</tr>
<tr>
<td></td>
<td>- Automated scoring of items/tasks other than selected-response will be teacher verified</td>
</tr>
<tr>
<td></td>
<td>- Automated scoring system modified based on Pilot Test data</td>
</tr>
<tr>
<td></td>
<td>- Range-finding activities included in scoring timeframe</td>
</tr>
</tbody>
</table>

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</thead>
<tbody>
<tr>
<td>34</td>
<td>Conduct Psychometric Analysis to Support Pilot Test Data Review</td>
</tr>
</tbody>
</table>
|    | **Expected Outcome:** Bank of items/tasks with computed item statistics (IRT, classical, and Differential Item Functioning) to support data analysis.  
|    | **Scope Parameters:**  
|    | • Conduct psychometric analysis to support data review  
|    | • Independent replication and verification of data analysis |
| 35 | Develop Pilot Test Item and Task Data Review Materials |
|    | **Expected Outcome:** Materials that ensure consistent training for review of statistical properties of items/tasks by committees and meeting logistics guidelines.  
|    | **Scope Parameters:**  
|    | • Committee nomination criteria and recruitment  
|    | • Technical Advisory Committee consultation, review, and approval of materials  
|    | • Establish the display of items/tasks and statistics for data review  
|    | • Committee and facilitator training documents  
|    | • Committee and facilitator training presentation materials |
| 36 | Conduct Pilot Test Item and Task Data Review |
|    | **Expected Outcome:** Pilot items/tasks are evaluated using item statistics (classical and IRT; including Differential Item Functioning) based on Pilot Test responses to determine Field Test eligibility and/or necessary edits in order to be eligible for the Field Test.  
|    | **Scope Parameters:**  
|    | • Committee nomination criteria and recruitment  
|    | • Establish criteria for data review of feedback decision-making  
|    | • Conduct analysis and develop a report regarding item/task writing improvements based on Pilot Test data  
|    | • Meetings of representative educator committees  
|    | • Meetings include review of translated items/tasks  
|    | • Educator feedback is documented and stored for future use  
|    | • Feedback reconciliation review required  
|    | • Item/task editing needs based on data review will be folded into the Field Test item/task writing/editing process |

**NOTES:**
- Scope is subject to change.
- Related materials include a vendor procurement schedule, as well as project schedules in MS Excel and MS Project formats.
<table>
<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>Conduct Analysis of Pilot Test</td>
</tr>
</tbody>
</table>
|    | **Expected Outcome:** Recommendations for changes to the Field Test development process based on Pilot development activities.  
**Scope Parameters:**  
- Item development process revision recommendations  
- Administration materials and process revision recommendations  
- Survey of Pilot Test participants  
- Test Security Analysis |

**Field Testing**

<table>
<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>Develop Field Test Deployment Plan</td>
</tr>
</tbody>
</table>
|    | **Expected Outcome:** Document that describes key steps to launching the Field Test administration.  
**Scope Parameters:**  
- Sampling Plan (including specifications around student identifier and student attributes, as well as expected Field Test length; needs to support establishment of a vertical scale)  
- Performance Task Field Test ensures sufficient quantity to support multiple-year administration and release strategy  
- Contingency plan to meet sampling plan for unanticipated participation withdrawals  
- School- and district-level participation guidelines  
- Develop test cases for Smarter Balanced-supported technology clients and network configurations  
- Administration Communication Plan  
- Administration and Participation Policies (e.g., Accommodations policies, improprieties, training, ticketing)  
- Scoring Plan and Schedule  
- Online Test Administration Guidelines (including minimum technology requirements for administration)  
- Paper Test Administration Guidelines (if necessary) |

**NOTES:**  
- Scope is subject to change.  
- Related materials include a vendor procurement schedule, as well as project schedules in MS Excel and MS Project formats.
### Master Work Plan Narrative – Summative

Version 4.1.1 as of 09/12/2011 and Version 4.2 as of 02/06/2012

#### Task Details

<table>
<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>Update Field Test Administration Materials</td>
</tr>
<tr>
<td>40</td>
<td>Conduct Field Test Assessment System Integration Testing – Preliminary</td>
</tr>
<tr>
<td>41</td>
<td>Load and Review Field Test Items and Tasks</td>
</tr>
</tbody>
</table>

**Expected Outcome:**

**39 Update Field Test Administration Materials**

- Revised administration materials based on Pilot Testing feedback.
- Development and deployment of test delivery training modules (online modules that mimic the test delivery application to allow students and test administrators to become familiar with the test delivery interface)
- Test Administration Manuals (e.g., TCM, TAM)
- Test Administration Training Materials (materials from Pilot will be made available as an early training material)
- Paper-and-Pencil Administration Documents (if required)
- Technical and Administration Support Materials
- Accommodations and Participation Guidelines (including performance tasks administration)

**40 Conduct Field Test Assessment System Integration Testing – Preliminary**

- Testing of all materials and administration systems reveals errors and/or issues that require resolution prior to Field Testing, and materials and/or systems are modified as necessary.
- Solicitation and participation process (definition and implementation)
- Conduct end-to-end mock Field Test (including all testing materials, testing application, and scoring)
- Code or material modifications are verified through additional end-to-end testing

**41 Load and Review Field Test Items and Tasks**

- Field Test items/tasks are loaded and display as intended in the Field Test Delivery System.
- Load items/tasks selected for Field Testing into the Field Test Delivery System
- Items/tasks reviewed by content specialists and special populations experts to verify display fidelity
- Items/tasks and/or application are reformatted as necessary to ensure correct display

**NOTES:**

- Scope is subject to change.
- Related materials include a vendor procurement schedule, as well as project schedules in MS Excel and MS Project formats.
<table>
<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
<th>Expected Outcome:</th>
<th>Scope Parameters:</th>
</tr>
</thead>
</table>
| 42 | Final Field Test Forms Verification                                      | System testing reveals all issues with spiraling algorithm, and modifications are made to the algorithm to ensure conformance to test specifications, test blueprints, and sampling plan. | - Simulations studies to verify items are exposed per design  
- Use case and user acceptance testing (including performance tasks)  
- Validate conformance to test specifications (e.g., test length)  
- Spiraling modifications as necessary to ensure conformance to test specifications, test blueprints, and sampling plan |
| 43 | Conduct Field Test Assessment Systems Testing – Final Verification        | All materials and administration systems are verified to reveal no errors and/or issues that require resolution prior to Field Testing. Modifications to materials and/or administration system until verification indicates no errors or issues. | - Validate test-length expectations based on Field Test sampling plan  
- Confirm participation of schools and classrooms  
- Conduct end-to-end mock Field Test (including all testing materials, testing application, and scoring)  
- Code or material modifications are verified through additional end-to-end testing  
- Final verification includes process to ensure that forms constructed by testing engine conform to test specifications and blueprint requirements |
| 44 | Field Test Administration                                                 | Smarter Balanced Field Test items/tasks are administered consistent with Smarter Balanced test administration policy and sampling plan (e.g., quantity and stratification) to evaluate items/tasks for use in the operational assessment and obtain stable item/task parameter characteristics that allow for pre-equating and use in Computer Adaptive Testing. | - Evaluate member states’ capacity and regulations regarding participation in Field Test  
- Online and secure  
- Minimal burden on states for administration registration  
- All administration materials available to participating states  
- All item types represented (selected-response, constructed-response, technology-enhanced, performance tasks)  
- Technical and administration support |
<table>
<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
<th>Expected Outcome</th>
<th>Scope Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>Score Field Test Responses</td>
<td>Field Test student responses are scored for all item/task types to support item and reporting evaluation activities.</td>
<td>Integration of scored responses into Item/Task by Student matrix</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Includes requirements for performance scoring (everything except selected-response)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Scoring output will be integrated with reporting applications</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>Scoring includes scoring reliability, throughput, and other agreed-upon metrics to verify score accuracy</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Scoring includes analysis and revision of identified scoring problems (including scoring rubrics and scoring algorithms)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Automated scoring of items/tasks other than selected-response will be teacher verified</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Automated scoring system modified based on Pilot Test data</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Range-finding included in this timeframe</td>
</tr>
<tr>
<td>46</td>
<td>Conduct Psychometric Analysis to Support Field Test Data Review</td>
<td>Bank of items/tasks with computed item statistics (IRT, classical, and Differential Item Functioning) to support data analysis.</td>
<td>Conduct psychometric analysis to support data review</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Independent replication and verification of data analysis</td>
</tr>
<tr>
<td>47</td>
<td>Develop Field Test Item and Task Data Review Materials</td>
<td>Materials that ensure consistent training for review of statistical properties of items/tasks by committees and meeting logistics guidelines.</td>
<td>Committee nomination criteria and recruitment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Establish criteria for data review of feedback decision-making</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Technical Advisory Committee consultation, review, and approval of materials</td>
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<tr>
<td></td>
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<td></td>
<td>Establish the display of items/tasks and statistics for data review</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Committee and facilitator training document</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Committee and facilitator training presentations</td>
</tr>
</tbody>
</table>

**NOTES:**
- Scope is subject to change.
- Related materials include a vendor procurement schedule, as well as project schedules in MS Excel and MS Project formats.
### Research and Evaluation

#### Task 48: Conduct Field Test Item and Task Data Review

**Expected Outcome:** Field Test items/tasks are evaluated using item statistics (classical and IRT; including Differential Item Functioning) based on Field Test responses to determine Operational Test eligibility and/or necessary edits that allow future Field Testing.

**Scope Parameters:**
- Conduct analysis and develop a report regarding item/task writing improvements based on Field Test data
- Meetings of representative educators and stakeholder committees
- Meetings include review of translated items/tasks
- Educator feedback is documented and stored for future use
- Feedback reconciliation review required

#### Task 49: Plan and Execute Four-Year Research Agenda

**Expected Outcome:** Prioritized research activities with anticipated start and completion dates that are logically connected to important Smarter Balanced assessment issues. Research activities are conducted that support key Smarter Balanced decisions.

**Scope Parameters:**
- Conduct ongoing research to investigate the effectiveness and impact of changes to the assessment system
- Establish a validity framework, determine evidence to support validity argument, and develop a plan to collect validity evidence
- Perform gap analysis between existing studies and need for future studies as part of operational maintenance
- Determine processes for system quality control (psychometric), including recommendations for quality control for future (e.g., scoring)
- Conduct research and provide policy and/or design guidance to Consortium
- Develop collaboration plan and initiate activities with other assessment consortia (PARCC, 1% Consortia)
- Conduct environmental scan to ensure validity claims are appropriate considering policies and programs (e.g., RTT, ESEA)

#### Task 50: Develop Research Agenda Implementation Strategy

**Expected Outcome:** A strategy for conducting prioritized research activities across the four-years of the project that is coordinated with key assessment design decisions outlined in the master work plan and four-year research agenda.

**Scope Parameters:**
- Determine assessment system research priorities across the four years of the project, in consultation with Smarter Balanced advisory committees
- Align research activities to key assessment design decisions
- Determine research governance structure (process for fielding and responding to requests for research or access to data sets)
- Develop a strategy and schedule to conduct research-identified activities

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### Master Work Plan Narrative – Summative

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<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>51</td>
<td>Establish Psychometric Services</td>
</tr>
<tr>
<td></td>
<td><strong>Expected Outcome:</strong> Psychometric vendor with experience and expertise in the full array of assessment design and measurement issues facing Smarter Balanced (Computer Adaptive Testing, automated scoring, vertical scale development, linking and equating, standard setting).</td>
</tr>
<tr>
<td></td>
<td><strong>Scope Parameters:</strong></td>
</tr>
<tr>
<td></td>
<td>- Computer Adaptive Testing design</td>
</tr>
<tr>
<td></td>
<td>- Sampling plan for Pilot and Field Test administration</td>
</tr>
<tr>
<td></td>
<td>- IRT model</td>
</tr>
<tr>
<td></td>
<td>- Scoring model(s) (including automated scoring models)</td>
</tr>
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<td></td>
<td>- Equating Design</td>
</tr>
<tr>
<td></td>
<td>- Item/Test translation analysis</td>
</tr>
<tr>
<td></td>
<td>- Item development, review, and selection criteria</td>
</tr>
<tr>
<td></td>
<td>- Linking Design</td>
</tr>
<tr>
<td></td>
<td>- Consultation, recommendations, and statistical/psychometric analysis on a variety of topics</td>
</tr>
<tr>
<td></td>
<td>- Technical Advisory Committee consultation and communications</td>
</tr>
<tr>
<td></td>
<td>- Technical reports as needed</td>
</tr>
<tr>
<td></td>
<td>- Cross-vendor communication and coordination</td>
</tr>
<tr>
<td></td>
<td>- Evaluate variance estimation of student scores and item parameters associated with Smarter Balanced design (e.g., human-verified scores vs. automated scores used in CAT)</td>
</tr>
</tbody>
</table>

| 52 | Determine Standard-Setting Design                                        |
|    | **Expected Outcome:** Documented plan for establishing preliminary achievement standards. |
|    | **Scope Parameters:**                                                   |
|    | - Determination of information (data) and process (including composition of standard-setting participants) |
|    | - Develop plan for finalized standards after 2014-15 first live administration |
|    | - Technical Advisory Committee consultation, review, and approval        |
|    | - Collaboration with PARCC                                               |
|    | - Includes procedure for revision and refinement of PLDs                |
|    | - Secure Governing States approval of standard-setting process          |
|    | - Benchmarking against external assessments and data elements (e.g., college grades, employment status) |
|    | - Develop plan for State Board/Governing State Chiefs approval process  |

**NOTES:**
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and **Version 4.2 as of 02/06/2012**

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<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
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<tbody>
<tr>
<td>53</td>
<td>Develop Preliminary Standard-Setting Materials</td>
</tr>
<tr>
<td>54</td>
<td>Conduct Preliminary Standard Setting</td>
</tr>
<tr>
<td>55</td>
<td>Develop CAT Specifications and Conduct Initial CAT Simulation Studies</td>
</tr>
</tbody>
</table>

#### ID 53: Develop Preliminary Standard-Setting Materials

**Expected Outcome:** Meeting materials that ensure consistent training for preliminary standard setting and clear meeting logistics guidelines.

**Scope Parameters:**
- Committee nomination criteria and recruitment
- Technical Advisory Committee consultation, review, and approval of materials
- Committee and facilitator training documents
- Committee and facilitator training presentation materials
- Develop all print and electronic materials needed to support the preliminary standard setting event and subsequent analysis

#### ID 54: Conduct Preliminary Standard Setting

**Expected Outcome:** Preliminary achievement standards established for grades 3–8 and high school in ELA and mathematics. The preliminary standard setting is intended to expedite the review and approval of standards using operational data after 2014-2015 administration.

**Scope Parameters:**
- Face-to-face standard-setting committee meetings
- Participant background and expertise is consistent with standard-setting participant recruitment plan
- Feedback is documented and stored
- Report of standard-setting analysis
- Secondary analysis to support policy analysis and considerations

#### ID 55: Develop CAT Specifications and Conduct Initial CAT Simulation Studies

**Expected Outcome:** Definition of business rules and constraints for Computer Adaptive Testing item selection algorithm consistent with the test specifications, test blueprints, termination and item exposure criteria, reporting requirements, and system response time using simulation studies and other relevant sources or data.

**Scope Parameters:**
- Monte Carlo-type simulation studies
- CAT Specifications document reviewed and approved by Smarter Balanced Technical Advisory Committee and other Smarter Balanced advisors as appropriate
- Report of findings, using a variety of constraint models, including considerations and recommendations (including possible changes to blueprints and/or test specifications)

**NOTES:**
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### Master Work Plan Narrative – Summative

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<table>
<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
<th>Expected Outcome</th>
<th>Scope Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>56</td>
<td>Determine Linking and Equating Design for Special Forms</td>
<td>Specifications to the extent needed on linking and equating procedures for special forms and their impact on test specifications, test blueprints, item/task development requirements, Pilot and Field Test forms construction, and vertical scale development.</td>
<td>• Criteria for determining recommended linking and equating design (including review and approval by Smarter Balanced advisors)&lt;br&gt;• Plan for replication studies&lt;br&gt;• Plan for monitoring drift&lt;br&gt;• Linking and equating design and specifications document</td>
</tr>
<tr>
<td>57</td>
<td>Determine Vertical Scale Design</td>
<td>Specifications for developing a vertical scale spanning across grades 3–11 and how the design impacts test specifications, test blueprints, item/task development requirements, Pilot and Field Test forms construction, and linking and equating procedures.</td>
<td>• Criteria for determining recommended vertical scale design (including review and approval by Smarter Balanced advisors)&lt;br&gt;• Vertical scale design and specifications document (including implications for test specifications and item selection algorithm)&lt;br&gt;• Establish approach to reporting students’ scores using the vertical scale based on the theory of action and validity claims</td>
</tr>
<tr>
<td>58</td>
<td>Select Anchor Items and Tasks for Calibration and Building the Vertical Scale</td>
<td>Anchor items/tasks selected with psychometric properties (individually and as a whole) sufficient to support stable calibration of Field Test items and the establishment of a vertical scale, and necessary comparability studies with PARCC.</td>
<td>• Criteria for anchor items/tasks and anchor item/task set (including review and approval by Smarter Balanced advisors)&lt;br&gt;• Criteria for anchor item/task selection committee and review committee&lt;br&gt;• Recruitment of anchor item/task selection committee&lt;br&gt;• Determine decision-making criteria regarding review committee feedback&lt;br&gt;• Determine and implement final review/approval process by Smarter Balanced</td>
</tr>
</tbody>
</table>

**NOTES:**
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### ID | Task Name
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<table>
<thead>
<tr>
<th>59</th>
<th>Conduct Psychometric Analysis to Support Item and Task Calibration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expected Outcome:</strong></td>
<td>Bank of calibrated items/tasks available for Operational Testing</td>
</tr>
<tr>
<td><strong>Scope Parameters:</strong></td>
<td></td>
</tr>
<tr>
<td>• Calibration of all Field Test items/tasks</td>
<td></td>
</tr>
<tr>
<td>• Independent replication and verification of calibration</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>60</th>
<th>Conduct CAT Simulation Study using Pilot Test Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expected Outcome:</strong></td>
<td>Guidance on the impact of specific Computer Adaptive Testing constraint models to inform possible revisions of test specifications, test blueprints, and/or reporting elements.</td>
</tr>
<tr>
<td><strong>Scope Parameters:</strong></td>
<td></td>
</tr>
<tr>
<td>• Simulations use Pilot Test data</td>
<td></td>
</tr>
<tr>
<td>• Simulations use the Computer Adaptive Test engine</td>
<td></td>
</tr>
<tr>
<td>• Hybrid simulation (using Pilot Test data to simulate responses) may be required if insufficient number of student responses</td>
<td></td>
</tr>
<tr>
<td>• Report of findings using a variety of constraint models that includes considerations and recommendations</td>
<td></td>
</tr>
<tr>
<td>• Modification to the Computer Adaptive Testing engine as needed to ensure conformance to test specifications and test blueprint requirements</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>61</th>
<th>Conduct CAT Simulation Study Using Field Test Data – Final CAT Algorithm Verification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expected Outcome:</strong></td>
<td>Final verification that the Computer Adaptive Testing engine conforms to requirements indicated in the test specifications, test blueprints, and/or reporting system.</td>
</tr>
<tr>
<td><strong>Scope Parameters:</strong></td>
<td></td>
</tr>
<tr>
<td>• Verification uses Field Test data</td>
<td></td>
</tr>
<tr>
<td>• Verification uses the Computer Adaptive Test engine</td>
<td></td>
</tr>
<tr>
<td>• Report of final verification findings</td>
<td></td>
</tr>
<tr>
<td>• Modification to the Computer Adaptive Testing engine as needed to ensure conformance to test specifications, test blueprints, and reporting requirements</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>62</th>
<th>Develop Technical Manuals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expected Outcome:</strong></td>
<td>Smarter Balanced technical manual that describes the Smarter Balanced assessment development process and psychometric properties of the Smarter Balanced assessment in order to meet peer review requirements.</td>
</tr>
<tr>
<td><strong>Scope Parameters:</strong></td>
<td></td>
</tr>
<tr>
<td>• Technical manual will be comprehensive of entire Smarter Balanced system and thus will require coordination with multiple service providers</td>
<td></td>
</tr>
<tr>
<td>• Multiple levels of review, including the Smarter Balanced Technical Advisory Committee and independent parties</td>
<td></td>
</tr>
</tbody>
</table>

### NOTES:
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# Technology Development

<table>
<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
<th>Expected Outcome</th>
<th>Scope Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>63</td>
<td>Develop IT Readiness Tool</td>
<td>Support the member state education agencies (SEAs) and their local education agencies (LEAs) as they evaluate their current technology and infrastructure in terms of readiness to implement the Smarter Balanced assessment system. Identify strategies to update their technology based on gaps identified.</td>
<td>IT Readiness Tool (conduct IT Readiness Assessment, Readiness Gap Analysis, Readiness Reports) Hosting and automated sniffer</td>
</tr>
<tr>
<td>64</td>
<td>Maintain and Support IT Readiness Tool</td>
<td>Provide continued technology support to state education agencies (SEAs) and their local education agencies (LEAs) as readiness metrics and technology standards are updated.</td>
<td>Software and help desk support with continued use of the IT Readiness Tool</td>
</tr>
<tr>
<td>65</td>
<td>Establish IT Systems Architecture</td>
<td>Establish the roadmap to achieve Smarter Balanced’s technology vision. Create blueprints for systematically developing the technology necessary to support Smarter Balanced’s assessment system. The assessment system shall be based on Universal Design principles and other research-based principles such that all applications will support access for all students and staff.</td>
<td>Comprehensive technology strategy (standards for development and implementation, along with relevant, interoperability protocols) High-level application architecture (applications and data flows) Information architecture (data structures for processing, storage, and use) Technical systems architecture (design and integration of data, applications, and technology infrastructure) Obtain Governing States approval</td>
</tr>
<tr>
<td>66</td>
<td>Conduct IT Systems Integration Architecture Maintenance and Support Services</td>
<td>Ensure that the assessment system is developed in adherence with the approved System Architecture.</td>
<td>Solution and systems architecture Technology governance Quality assurance (QA) testing</td>
</tr>
</tbody>
</table>

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<tr>
<th>ID</th>
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</thead>
<tbody>
<tr>
<td>67</td>
<td>Develop Item Authoring and Item Pool Applications</td>
</tr>
</tbody>
</table>

**Expected Outcome:** Ensure item/task development can be supported through its full life cycle from item writing through test administration.

**Scope Parameters:**
- Phased development of technology components based on Pilot and Field Test technology requirements
- Acquire Item Authoring and Item Pool application
- Systems enhancements to support mass upload of state-developed items – development and full quality assurance review
- Systems enhancements to support innovative and complex test items – development and full quality assurance review
- Systems enhancements to support Item Pool development life cycle and content management – development and full quality assurance review

| 68 | Determine Initial Reports Reflecting Content Specifications and Bundling Activity |

**Expected Outcome:** Report system requirements (including navigation through reporting system, reporting system portal, dynamic reports, and reporting dashboard) and specific report mock-ups to allow for user feedback and refinement. Intended to identify the core user requirements of the overall reporting system and key reports.

**Scope Parameters:**
- Reporting requirements for all Smarter Balanced audiences (teachers, students, parents, administrators, stakeholders) and report uses, consistent with the Smarter Balanced Theory of Action
- Initial reporting system process-flow mock-up (static and dynamic reports)
- Specific report mock-ups that are consistent with the requirements defined in the test specifications and reporting categories
- Incorporate research and best practices in report design
- Review, analysis, and feedback will include a broad range of stakeholders including chiefs, governors, state administrators as well as content experts, IHE representatives, and national organization memberships
- Develop reports at different levels of detail for individual students and for different aggregations of students
- Identify the information needs of distinct audiences: teachers, students, parents, education administrators, and other stakeholders
### Design Beta Reports

**Expected Outcome:** Design a dynamic beta reporting system, based on mock-up feedback, for small-scale user acceptance testing with stakeholders.

**Scope Parameters:**
- Gather feedback of mock-up reports and refine requirements
- Generate simulated data set to be used with beta reports
- Use case and small-scale user acceptance testing
- Evaluate user experience in navigating the system, and accessing and generating reports
- Evaluate clarity and completeness of reports
- Create working dynamic reporting system for small-scale user acceptance testing
- Reports include a raw data utility to support customized reporting
- Review, analysis, and feedback will include a broad range of stakeholders including chiefs, governors, state administrators as well as content experts, IHE representatives, and national organization memberships

### Conduct Small-Scale User Acceptance Testing on Beta Reporting System

**Expected Outcome:** Conduct small-scale user acceptance testing of the beta reporting system.

**Scope Parameters:**
- Gather feedback of beta reporting system
- Revise report application and/or report design based on testing and feedback
- Confirm acceptance of report modifications
- Reports use simulated data to test customized reports
- Review, analysis, and feedback will include a broad range of stakeholders including chiefs, governors, state administrators as well as content experts, IHE representatives, and national organization memberships

### Design Support Materials for Implementation of Reporting System

**Expected Outcome:** Develop printed and digital materials to support stakeholders as they access and use reports.

**Scope Parameters:**
- Develop user guide that includes: description of all reports, information on how to access reports, and instructions for providing feedback
- Develop online training modules for how to use the reports and navigate the reporting system
- Design and develop technical assistance and short-term professional development (online best practices) for educators (administrators, teacher leaders and other coaches, and teachers)

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**NOTES:**
- Scope is subject to change.
- Related materials include a vendor procurement schedule, as well as project schedules in MS Excel and MS Project formats.
## Master Work Plan Narrative – Summative

**Version 4.1.1 as of 09/12/2011**

and **Version 4.2 as of 02/06/2012**

### ID Task Name

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<tr>
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<tbody>
<tr>
<td>72</td>
<td>Determine Reports and Reporting System for Large-Scale User Acceptance Testing</td>
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<tr>
<td>73</td>
<td>Conduct Large-Scale User Acceptance Testing of Reporting System</td>
</tr>
<tr>
<td>74</td>
<td>Determine Technology Approach for Pilot Test</td>
</tr>
</tbody>
</table>

**NOTES:**
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### Determine Reports and Reporting System for Large-Scale User Acceptance Testing

**Expected Outcome:** Modify reporting system based on results from small-scale user acceptance testing. Generate reports that will be used for large-scale user acceptance testing, leading to a final round of report modification/improvement.

**Scope Parameters:**
- Revise report application and/or report design based on testing and feedback
- Coordinate with test data system so that reports from large-scale user acceptance testing use actual field test data
- Confirm acceptance of report modifications
- Ensure portability of scores for mobile students
- Reports will be available online through the portal
- Review, analysis, and feedback will include a broad range of stakeholders; engage chiefs, governors, state administrators as well as content experts, IHE representatives, and national organization memberships

### Conduct Large-Scale User Acceptance Testing of Reporting System

**Expected Outcome:** Implement large-scale user acceptance testing of reporting system.

**Scope Parameters:**
- Use case and large-scale user acceptance testing
- Use live data to test on-demand reports for stakeholders
- Review, analysis, and feedback will include a broad range of stakeholders including chiefs, governors, state administrators as well as content experts, IHE representatives, and national organization memberships
- Modify as needed for operational reporting system

### Determine Technology Approach for Pilot Test

**Expected Outcome:** Develop technology approach for implementing and supporting the Pilot Test. The Pilot Test is intended to provide key learnings on innovative concepts to be evaluated. Critical technology systems to be evaluated are Item Authoring, Item Pool application, Test Delivery, and Data Transfer with an inclusion of a limited systems portal.

**Scope Parameters:**
- Determine critical technology components required in support of Pilot Test
- Determine and plan systems resources to support Pilot Test
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<tr>
<th>ID</th>
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<tbody>
<tr>
<td>75</td>
<td>Implement Technology Systems for Pilot Test</td>
</tr>
<tr>
<td></td>
<td><strong>Expected Outcome:</strong> Develop, or enhance, and implement the technology systems necessary for the Pilot Test.</td>
</tr>
<tr>
<td></td>
<td><strong>Scope Parameters:</strong></td>
</tr>
<tr>
<td></td>
<td>● Develop or enhance systems required to support Pilot Test</td>
</tr>
<tr>
<td></td>
<td>● Development processes should leverage Agile methodologies allowing iterative requirement gathering and application development</td>
</tr>
<tr>
<td></td>
<td>● Systems integration test and full quality assurance review</td>
</tr>
<tr>
<td></td>
<td>● Implement and deploy systems</td>
</tr>
<tr>
<td>76</td>
<td>Determine Technology Approach for Field Test</td>
</tr>
<tr>
<td></td>
<td><strong>Expected Outcome:</strong> Develop technology approach for supporting the Field Test. The Field Test is intended to test both the items/tasks and the integration of the critical technology components. The technology systems to be field tested include Item Pool Application, Test Delivery, Secure Systems Portal, AI Scoring, CAT, and Data Transfer.</td>
</tr>
<tr>
<td></td>
<td><strong>Scope Parameters:</strong></td>
</tr>
<tr>
<td></td>
<td>● Determine critical technology components required in support of the Field Test</td>
</tr>
<tr>
<td></td>
<td>● Determine and plan systems resources to support the Field Test</td>
</tr>
<tr>
<td>77</td>
<td>Implement Technology Systems for Field Test</td>
</tr>
<tr>
<td></td>
<td><strong>Expected Outcome:</strong> Develop, or enhance, and implement the technology systems necessary for the Field Test.</td>
</tr>
<tr>
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<td>● Develop systems required to support the Field Test</td>
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<td></td>
<td>● Implement and deploy systems</td>
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<tr>
<td></td>
<td>● Development processes should leverage Agile methodologies allowing iterative requirement gathering and application development</td>
</tr>
<tr>
<td>78</td>
<td>Develop Technology Systems for Operational Administration</td>
</tr>
<tr>
<td></td>
<td><strong>Expected Outcome:</strong> Develop, or enhance, and implement the systems necessary for Operational Administration of the Smarter Balanced Assessment. Technology systems to support the Operational Administration include Item Pool Application, Test Delivery, Secure Systems Portal, AI Scoring, CAT, Reporting, and Student Data Transfer.</td>
</tr>
<tr>
<td></td>
<td><strong>Scope Parameters:</strong></td>
</tr>
<tr>
<td></td>
<td>● Develop systems required to support Operational Administration of the Smarter Balanced Assessment</td>
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<tr>
<td></td>
<td>● Development processes should leverage Agile methodologies allowing iterative requirement gathering and application development</td>
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<tr>
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<td>● Systems integration test and full quality assurance review</td>
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**NOTES:**
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## Master Work Plan Narrative – Summative

### Version 4.1.1 as of 09/12/2011
and Version 4.2 as of 02/06/2012

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<tbody>
<tr>
<td>79</td>
<td>Conduct Overall Systems Test of Smarter Balanced Technology</td>
</tr>
</tbody>
</table>
  
  *Expected Outcome:* Thoroughly tested and reviewed set of integrated technology systems to support the Smarter Balanced Assessment. Successful results indicate that the technology systems are ready for state use.  
  
  *Scope Parameters:*  
  - System test planning and preparation  
  - System test execution and full quality assurance review, including integration and load testing  

| 80 | Support Technology Deployment for Operational Administration |
  
  *Expected Outcome:* Intended to ensure that stakeholders have sufficient and cost-effective support to deploy the assessment system for their specific state infrastructure.  
  
  *Scope Parameters:*  
  - Development of deployment plan guidelines  
  - Support for states as they implement the technology systems  
  - Development of state implementation plan to be executed by the member states  

### Governance and Project Management

| 81 | Initiate Project |
  
  *Expected Outcome:* Fully engaged set of member states adhering to a common governance structure and working toward a clearly defined master plan.  
  
  *Scope Parameters:*  
  - Ten work groups aligned to core functional areas, representing a balance of state membership  
  - Enhancements to organization structure including positions for Executive Director and supporting staff  
  - Preliminary master plan of activities, timelines, and work group charters  
  - Comprehensive project management processes and templates  
  - Amended governance structure and organization chart  

| 82 | Perform Governance and Compliance Monitoring Activities |
  
  *Expected Outcome:* Adherence to concepts and activities defined in the governance document and compliance with USED requirements.  
  
  *Scope Parameters:*  
  - State entrance, exit, and status changes  
  - Work group membership changes  

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<table>
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<tr>
<th>ID</th>
<th>Task Name</th>
<th>Expected Outcome</th>
<th>Scope Parameters</th>
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<tbody>
<tr>
<td>83</td>
<td>Monitor Project</td>
<td>Review and management of actual progress against the plan; balancing scope, schedule, budget, and risk.</td>
<td>Regular meetings of the Executive Committee, Governing States, and Advisory States, Weekly, monthly, and quarterly status reports, Regular USED reports including monthly updates, quarterly American Recovery and Reinvestment Act (ARRA) reports, annual performance reports, and a final project report.</td>
</tr>
<tr>
<td>84</td>
<td>Perform Financial Management Activities</td>
<td>Fiscal management of all Consortium funds including USED and foundation grants.</td>
<td>Quarterly financial reports, Contract and invoice management, Budget tracking and forecasting</td>
</tr>
<tr>
<td>85</td>
<td>Oversee Vendors</td>
<td>Successful implementation of procurement and contract management procedures in collaboration with lead fiscal state.</td>
<td>Model processes for RFP development and vendor selection, Contract management protocols, Capture and monitor project plans, Policy and procedures for vendor oversight including interactions with work group, member states, and the project management partner, Monitor activities and deliverables</td>
</tr>
<tr>
<td>86</td>
<td>Prepare and Conduct Project Status Reviews</td>
<td>Monitor and report project status and refine plans for future phases.</td>
<td>Weekly, monthly, quarterly, and annual reports, Quarterly refinement of the Master Work Plan</td>
</tr>
</tbody>
</table>

NOTES:
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</table>
| 87 | Develop and Implement Business Plan for Post-2014  
  *Expected Outcome:* Clearly defined structure and roles of the Consortium and its states for after the grant expires; a comprehensive business plan is developed and implemented.  
  *Scope Parameters:*  
  - Governance Structure and Organization Model  
  - Legal status of Consortium  
  - Ownership and licensing of products developed  
  - Operating policies and procedures including implementation logistics and support structures  
  - Procurement of state-specific service providers  
  - Financial modeling of state-specific costs |
| 88 | Develop Initial Communications Materials  
  *Expected Outcome:* Materials to educate and inform internal Consortium members and external stakeholders.  
  *Scope Parameters:*  
  - Summary of Core Components  
  - Press releases  
  - External presentations  
  - Frequently Asked Questions and Talking Points |
| 89 | Develop Initial Smarter Balanced Web Presence  
  *Expected Outcome:* External website to educate and inform all interested parties on the activities being undertaken by the Consortium; internal website to support information sharing and collaboration among the Consortium members.  
  *Scope Parameters:*  
  - External website – informational materials, state membership overview, posting of open request for proposals  
  - Internal website – document sharing, work group collaboration, communications resources for states |
| 90 | Develop Long-term Smarter Balanced Web Presence  
  *Expected Outcome:* External website to educate and inform all interested parties on the activities being undertaken by the Consortium; internal website to support information sharing and collaboration among the Consortium members.  
  *Scope Parameters:* |
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<tr>
<td></td>
<td><strong>External website – informational materials, state membership overview, posting of open request for proposals</strong></td>
</tr>
<tr>
<td>91</td>
<td><strong>Implement Communication Plan Activities – Internal Stakeholders</strong></td>
</tr>
</tbody>
</table>
|     | **Expected Outcome:** Disseminate a range of products and services that communicate with the Smarter Balanced member states using multiple points of contact.  
**Scope Parameters:**  
- Audiences include chiefs, governors, state assessment directors and staff, and work group members  
- Points of contact include collaboration website, print media, webinars, newsletters, emails, conference calls, common social media, blogs, and podcasts |
| 92  | **Implement Communication Plan Activities – External Stakeholders** |
|     | **Expected Outcome:** Disseminate a range of products and services that communicate to external audiences using multiple points of contact.  
**Scope Parameters:**  
- Audiences include K-12 educators, parents, higher education, professional organizations, and advocacy groups with a focus on public education, offices in the Federal government, US legislators and their staff, foundations, and both for-profit and non-profit organizations  
- Points of contact include print media, webinars, newsletters, emails, conference calls, common social media, blogs, and podcasts |
| 93  | **Develop Communication Strategy and Plan** |
|     | **Expected Outcome:** Detailed articulation of the goals for branding the Consortium’s products and for identifying and meeting the needs of its internal member states and its external stakeholders.  
**Scope Parameters:**  
- Branding strategies aligned to Consortium’s unique features  
- Assess needs of districts and state agencies  
- Promote broader understanding of the Common Core State Standards |
| 94  | **Select and Engage Communications Service Provider** |
|     | **Expected Outcome:** Contract with leading communications firm.  
**Scope Parameters:**  
- Clearly defined Request for Proposal document  
- Open, fair procurement process  
- Executed contract |

**NOTES:**  
- Scope is subject to change.  
- Related materials include a vendor procurement schedule, as well as project schedules in MS Excel and MS Project formats.
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<tr>
<td>95</td>
<td>Develop Policies and Procedures for Managing Smarter Balanced Document Distribution and Revision</td>
</tr>
</tbody>
</table>

**Expected Outcome:** Consistent process for document distribution and revision.

**Scope Parameters:**
- Document distribution policies (including security policies and non-disclosure agreements)
- Document revision policies
- Document revision tracking procedures

**NOTES:**
- Scope is subject to change.
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