Template Guidelines

Core Standards and Metadata for Learning & Ontology

Revision 1

Revision History

Revision	Author/Modifier	Date of Revision	Comments
1	David Lopez de Quintana	Feb 28, 2013	Initial Release

Contents

1 Overview

Several components of the Smarter Balanced Assessment Consortium Assessment System require access to content standards. For example, the Item Authoring system needs to align individual items to content standards. The Test Authoring needs content standards to create assessment blueprints.

The Core Standards and Metadata for Learning and Ontology (Core Standards) exists to provide a central "one version of the truth" repository of content standards. This avoids discrepancies between copies of supposedly identical content standards stored across different components.

This document provides guidelines on how to fill out input template used to upload content standards publications into the Core Standards component. The template is uploaded to the Core Standards administrative console, and an automatic procedure reads, validates and stores the standards publication in the Core Standards component if the input spreadsheet is validated successfully.

2 General Rules

1. Use one template per standards publication – If you need to upload both Mathematics and ELA standards publications, use separate input templates for each standards publication.
2. Don't modify the names of the spreadsheet tabs and the headings in each tab – The import procedure depends on the spreadsheet tabs and headings to be spelled exactly as the example spreadsheet template to function correctly.
3. Provide information that is as close as possible to the published standards information – do not change the hierarchy, add or delete levels, change standards names, or provide grades that aren't in the standards, or apply any other change that causes the standards to deviate substantially from the standards as published by the governing body.
4. Use actual grades as indicated by the standards – Successful test delivery depends on matching grades aligned to content standards with actual student enrolled grades.

3 Input Template Workbook Tabs

3.1 Publication Tab

The Publication tab provides information that uniquely identifies the standards publication. There is only one standards publication per template, so this workbook should contain one and only one row in addition to the header row. The following table shows the column headings and guidelines for input.

Column Heading	Input Guidelines	Example
PublisherName[1]	This is typically the name of the client	Minnesota
PublicationDescription[1]	A string that fully describes the publication	2003 Minnesota Academic Standards Language Arts K-12
Subject[1]	The subject that this standards publication applies to as published by the client	English Language Arts
Version[1]	The version number of this publication[2]	1
[1]Required field [2]The version number is sometimes incremented to add copies of the same publication when alignment to more than one standard is required. New versions of the publication as published by the state will usually have a different publication description indicating the year of the publication.		

The Publisher Name and a shorthand code representing the publisher must be unique across all publications stored in the Core Standards component, and must be added to Core Standards using the administrative

application before attempting to upload a standards publication. Otherwise, the Publisher will not be recognized and the upload will fail. Similarly, the Subject and a shorthand code representing the subject must be added to Core Standards, or the subject will not be recognized and the upload will fail.

The Core Standards system will generate a shorthand key for the standards publication upon successful upload using the shorthand keys for Publisher and Subject, and the version. For example, if the short name "SBAC" is associated with "Smarter Balanced Assessment Consortium," and the short name "ELA" is associated with the subject "English Language Arts," and the Version is 1, Core Standards will create a publication reference of "SBAC-ELA-v1" upon successful validation and upload.

3.2 Categories Tab

The Categories tab describes the standards hierarchy and names each level. This is client and publication specific. These names appear in the user interface of ITS and other systems, and the number of levels defines the behavior of the UI for these systems. The levels and names should be true to the nomenclature used by the client.

The number of rows in addition to the header row should reflect the number of levels in the standards hierarchy. For example, if a standards publication has 4 levels, row 2 should reflect the highest level, Row 3 the next highest level, etc.

Column Heading	Input Guidelines	Example
Category[1]	A string that describes the content standard level	Strand
Tree Level[1]	An integer starting with 1 for the highest level and incremented by 1 for each subsequent level	1
[1]Required field		

Here is an example of a completed Categories tab. The category names are expected to be different from publication to publication.

Category	Tree Level
SBAC Claim	1
SBAC Assessment Target	2
Common Core Standard	3

3.3 Standards Tab

The Standards tab is where you input the actual standards and the standards text.

Column Heading	Input Guidelines	Example	
Level[1]	An integer between 1 and the number of levels as defined in the Categories tab. If there were 4 levels defined in the Categories tab, then this column should contain only the values 1, 2, 3 or 4.	1	
Key[1]	This is a pipe-delimited[3] key value. Level 1 standards have standalone key strings. Level 2 standards contain the key string of the first level, one pipe delimiter, and the key string of the second level. In general, Level N standards contain key strings separated by N-1 pipe delimiters. Keys must be unique and not duplicated across the standards publication. All content levels must have an identifiable parent key. For example, a content level with a key of ELA-III|B|2 must have a parent with a key of ELA-III|B	Level 1 Example	ELA-III
		Level 2 Example	ELA-III|B
		Level 3 Example	ELA-III|B|2
		Level 4 Example	ELA-III|B|2|2

Column Heading	Input Guidelines	Example
Name[1]	This is the content standards/benchmark name consistent with the nomenclature used by the client. The CSR does not impose any rules on the content level name, but the rule is that names should be used that the client would immediately recognize.	K.II.E.1
Description[1]	This is the text of the standard as published by the client. Do not leave leading or training blanks when entering the standards description.	Correctly form many of the uppercase and lowercase letters of the alphabet, monitor and discuss the differences.
ShortName[2]	A text string that provides an abbreviated description of the content level. The use of short names is not mandatory, but if used, should reflect the nomenclature used by the client. If the client does not supply short names for the content level, then the IDM is free to leave this blank or to create their own descriptive short names for the content level.	The student will use a variety of strategies to expand reading, listening and speaking vocabularies.

[1]Required field
[2]Not a required field
[3]The pipe character "|" is above the backslash key on the right side of the keyboard

Here is a short example of a segment of the Standards tab.

3	4-CR|5-3|3.W.2d	3.W.2d	Write informative/explanatory texts to examine a topic and convey ideas
3	4-CR|5-3|3.W.3d	3.W.3d	Write narratives to develop real or imagined experiences or events using
3	4-CR|5-4|4.L.3a	4.L.3a	Use knowledge of language and its conventions when writing, speaking,
3	4-CR|5-4|4.L.6	4.L.6	Acquire and use accurately grade-appropriate general academic and
3	4-CR|5-4|4.W.2d	4.W.2d	Write informative/explanatory texts to examine a topic and convey ideas
3	4-CR|5-4|4.W.3d	4.W.3d	Write narratives to develop real or imagined experiences or events using
3	4-CR|5-5|5.L.3a	5.L.3a	Use knowledge of language and its conventions when writing, speaking,
3	4-CR|5-5|5.L.6	5.L.6	Acquire and use accurately grade-appropriate general academic and
3	4-CR|5-5|5.W.2d	5.W.2d	Write informative/explanatory texts to examine a topic and convey ideas
3	4-CR|5-5|5.W.3d	5.W.3d	Write narratives to develop real or imagined experiences or events using

3.4 SOCKs Tab

The acronym SOCK stands for Some Other Category of Knowledge. These are strings that are sometimes used for reporting categories that are not part of the content standards hierarchy. SOCKs are not required, but if a particular category is important to the client and items are categorized or partitioned in some way using metadata that may affect the way assessment results are reported, it would be a good idea to make SOCKs to match each category.

Column Heading	Input Guidelines	Example
Knowledge Category[1]	A string that indentifies the knowledge category	Cognitive Level C
Description[2]	A string that provides informational description	Cognitive Level C

[1]Required field
[2]Not a required field

3.5 Benchmark Grades Tab

The Benchmarks Grade tab associates a standard key defined in the Standards tab and associates it with a grade, or with a comma-delimited set of grades. The grades must match the grades in the content standards as published by the state or governing body. Before any grade alignments can be uploaded, the grade values must be created in advance using the Core Standards administration application. For example, if your content standards publications contains grades 3, 4, 5, 6, 7, 8, 9, 10, and 11, these grade values must be added to Core Standards in advance using the administration application. These grade values will be used by the Item Authoring and Test Authoring application to filter content standards so only the standards that are relevant to the selected grade of an item or blueprint are visible.

A standard or benchmark that is associated with more than one grade may be entered in one of the two following ways:

1. Use only one row for each key, and express the Grades for standards aligned to more than one grade with a comma-separated list of grades.
2. Repeat the key on multiple rows with one row for each grade. For example, if a key is associated with grades 5, 6 and 7, repeat the key on three rows with 5, 6 or 7 in the Grade column of each row

DO NOT use grade bands such as 4-7. This will not be recognized as a comma-separated list of grades by the administrative application. Instead, enumerate all grades and delimit them with a comma: 4,5,6,7.

Column Heading	Input Guidelines	Example
Benchmark Key[1]	A benchmark key defined in the Standards tab. The key value must exactly match the key defined in the Standards tab, or the standards import will fail.	ELA-II|B|9-12|5
Grade[1]	A single grade or a comma-delimited list of grades from the following set: KG, 1,2,3,4,5,6,7,8,9,10,11,12 Other values must be explicitly represented by the content standards and approved by the CSR Project Manager	5 1,2,3,4,5,6
[1]Required field [2]Not a required field		

3.6 Validation Rules

Please ensure that the standards publication follows the

1. The standards publication must be stored in an OpenOffice Calc spreadsheet with a .ods extension. OpenOffice was selected because it is an open-source spreadsheet application in keeping with the open-source nature of the technologies used in the Smarter Balanced Assessment System.
2. Any special characters embedded in text data must be preceded by backslash ("\") character. This ensures that the underlying database engine does not inadvertently replace the special character in unexpected ways. The following table indicates the special characters that must be escaped.

Escape Sequence	Character Represented by Sequence
\'	A single quote ("'") character.
\"	A double quote (""") character.
\b	A backspace character.
\t	A tab character.
\\	A backslash ("\") character.
\%	A "%" character. See note following the table.
_	A "_" character. See note following the table.

3. Ensure that all required spreadsheet tabs are present and that they are named as expected
4. Ensure that all required columns in each required tab are present and are named as expected
5. Publication Tab
   a. All required columns must be filled in
   b. The Publisher must be added in advance using the Core Standards administrative application
   c. The Subject must be added in advance using the Core Standards administrative application
   d. Version must be numeric, and no other publications with the same Publisher and the sane Subject with the same version must already exist in Core Standards
6. Categories tab
   a. All required columns must be filled in
   b. At least one level
   c. Tree Level values must be numeric, start at 1 and be sequential
7. Standards tab
   a. Level, Key, Name and Description are required

    b. Level must be numeric and must correspond to the levels in the Categories tab

    c. Keys must be unique across the publications

    d. Keys for every level defined in the Categories tab should be defined

    e. Every level 2 key and above must have a parent: for example, if a level 3 key "1-LT|1-10|10.RL.3" is defined, there must be a level 2 key "1-LT|1-10" must exist

    f. The pipe character ("|") cannot be used for any other purpose except as a delimiter separating the individual parts of a key

    g. At least one standard is required

8. SOCKs tab

    a. All SOCKs are optional. They are not required, and they are free form strings

9. Benchmark Grades

    a. Must have at least one record

    b. Must have both a key and a grade

    c. All keys in this tab must be defined in the Standards tab

    d. Only the lowest level keys need to be associated with a grade; the upload process will automatically associate parent keys with every grade all of their children are associated with

    e. All grades must be added to Core Standards in advance using the administrative application, otherwise the standards publication upload will fail