SMARTERAPP SPECIFICATION

for

TEST RESULTS TRANSMISSION FORMAT

Authored by
American Institutes for Research

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Revision History

Revision Description	Author/Modifier	Date
0.1: Initial Release (DRAFT)	Rami Levy	April 28, 2014
0.2: Clarified that this specification covers both the TDS-to-TIS and TIS-to-DW interfaces, as they are exactly the same.	Rami Levy	July 8, 2014
0.3: Removed Opportunity/windowStart	Rami Levy	July 18, 2014
0.4: Added/updated complete list of acceptable values for ExamineeAttributes and Accommodations	Rami Levy	August 3, 2014
0.5: Updated based on Smarter feedback. Several comments updated; Table 3, Table 4, Table 5 added to better describe allowable values; added effectiveDate attribute to Table 2. Updated XSD and sample XML.	Rami Levy	August 14, 2014
0.6: Added and clarified proposed solutions for accessibility feature coding, achievement levels and subscores.	Brandt Redd (based on proposal from David Lopez de Quintana)	September 18, 2014
1.1 Updated reporting of accommodations	Brandt Redd (based on submissions from Rami Levy)	October 29, 2014
1.1 Changed “Eligible” for accommodations to “Designated”	Brandt Redd	6 December 2014
1.1 Corrections to sample XML for accommodations	Brandt Redd (based on information from Rami Levy)	17 December 2014

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Purpose

The purpose of this document is to provide a format specification describing the output of the Test Delivery System (TDS), which feeds into the Test Integration System (TIS), which feeds into the Data Warehouse (DW). The interface is exactly the same for both; that is, the TDS output contains the complete specification for TDS-to-TIS and TIS-to-DW. The specification includes a table describing each XML node and attribute. In addition, the XSD and a sample XML file are included for reference.

This specification represents the combined work of Smarter Balanced and various vendors working on related contracts.

References

Ref	Reference	Author	Version
1	Common Education Data Standards (CEDS) specification (https://ceds.ed.gov/elements.aspx)	ceds.ed.gov	4.0
2	Administration And Registration Tool (ART) Upload File Formats	AIR / Smarter Balanced	0.3

Test Integration Data Flow Overview

This document describes the data interface between the Test Integration component and one or more Data Warehouses (an interface labeled as arrow 8 in Figure 1).

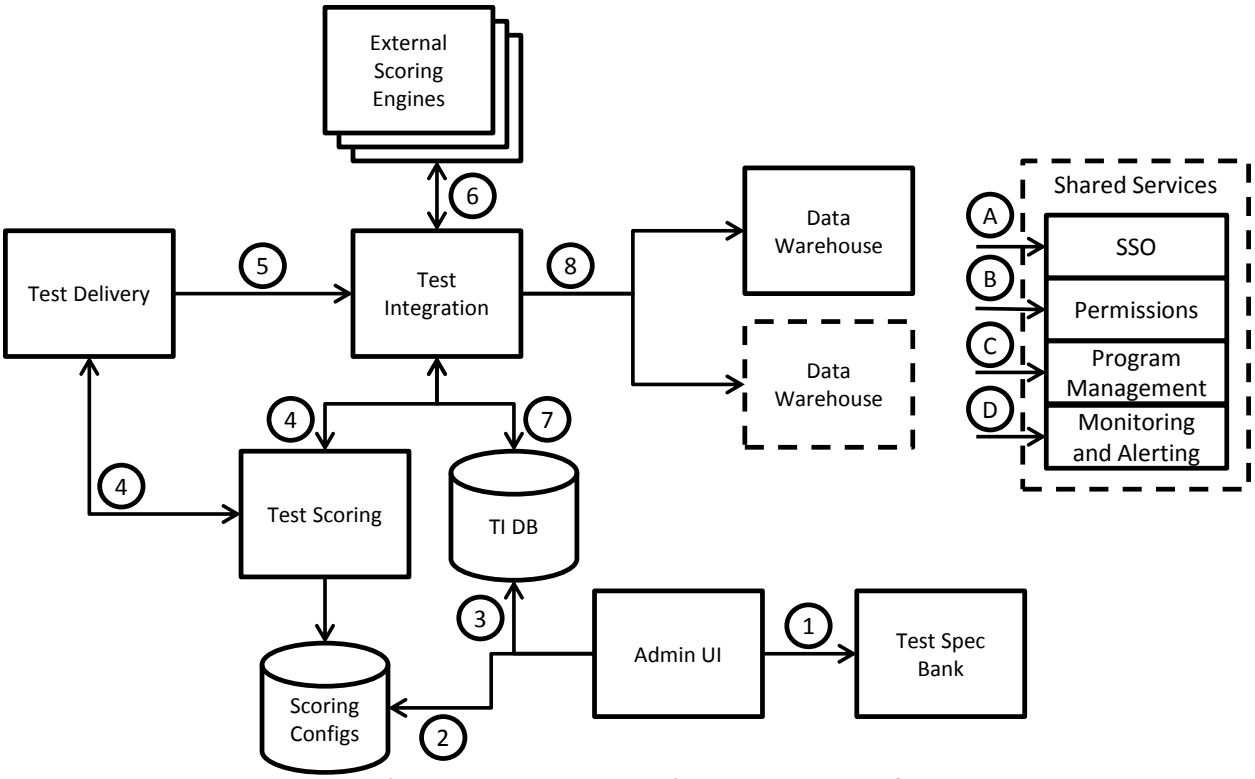

Figure 1: Test Integration and Scoring Data Interfaces

Table 1 summarizes the elements in Figure 1 that are relevant to this document.

Diagram Element	Description
Test Delivery (TDS)	Test Delivery is responsible for the real time, interactive portion of a student assessment. Test Delivery holds a student's assessment result for a test opportunity until that opportunity has been completed.
Test Integration (TIS)	Test Integration holds an assessment result when the real time, interactive portion of the assessment is completed.
Test Integration Database	The Test Integration Database stores: (1) in-process assessments that have items that are awaiting are awaiting scoring by external scoring engines, and (2) storing configuration information about how to process assessment opportunities for particular assessments. The configuration information about a particular assessment is provided by a test package via the Admin UI that contains the scoring rules.
External Scoring Engines	External Scoring Engines are typically hand scoring systems, but may also be other types of item scoring engines such as automated essay scoring engines that may take more time than is reasonable to be used during a live assessment event. There is no vendor that is building these scoring engines, so AIR will design the protocol to these scoring engines and develop a stub that satisfies the other end of this protocol.
Data Warehouse (DW)	The Data Warehouse is being developed for Smarter Balanced under Contract 15. The Test Integration component will deliver fully scale scored XML documents to the Data Warehouse that represents a complete test opportunity for a student.

Diagram Element	Description
Test Scoring	The Test Scoring component is responsible for scale scoring an assessment based on preconfigured scoring rules that are provided by means of test packages authored by Test Authoring and stored in the Test Spec Bank.
Scoring Configs Database	The Scoring Configs Database stores scoring configurations that the Test Scoring component uses to know how to score a particular assessment. The configuration information about a particular assessment is provided by a test package via the Admin UI that contains the scoring rules.

Table 1: Component Definitions

Test Integration receives the completed assessment from Test Delivery (arrow 5), delivers responses to external scoring engines (arrow 6), receives and collates results from external scoring engines (arrow 4). *The interfaces associated to arrows 5 and 8 are identical and are specified in this document*. Their format has been designed with optimal flexibility, in order to capture information for any type of assessment. For this reason, many of the nodes and attributes are normalized to name/value pairs, rather than being hard-coded to accept specific data fields.

Test Integration Data Format Conventions

Table 2 provides information regarding the XML output format and its associated XSD, such as the allowable values, sizes, and descriptions, as well as any standards alignment. Also included in this document are the XSD and a sample XML output. The fields in Table 2 below follow these conventions:

- **Case sensitivity**: Field names are case sensitive and follow the guideline that the XML *Node/Element* is in UpperCamelCase, while node *attributes* are in lowerCamelCase.
- **Order sensitivity**: Fields are not order-sensitive.
- **Non-required (optional) fields**: By default, these fields do not need to be included in the XML file. A missing optional field is simply treated as not present or not applicable.
- **Cardinality**: The number of possible instances of a particular node is defined clearly in the XSD (see Test Integration Format XSD).

Test Integration Format Specification

Category / Node (XML Element)	TDS Field Name (attribute)	XML Hierarchy	Width (chars)	Required	Data Element Description	Acceptable Values	Data Type	Reference
Test	name	TDSReport:Test	250	Y	Name of the test. This usually consists of the testID with some extra information indicating the client and the season. E.g. (Oregon)OAKS-Math-5-Fall-2012-2013	One or more printable ASCII characters	xsd:token	CEDS [1]: K12 -> Assessments -> Assessment Administration -> AssessmentAdministration Name ID #977
	subject		10	Y	Subject of the test. E.g. ELPA or MA.	One or more printable ASCII characters	xsd:token	
	testId		255	Y	The Test Authoring ID of the test, independent of client, season and year	One or more printable ASCII characters	xsd:token	CEDS [1]: K12 -> Assessments -> Assessment -> AssessmentIdentifier ID #1067
	bankKey		8	Y	ITS bank of blueprint.	Positive 32-bit integer	xsd:unsignedInt	
	handScoreProject		8	N	If this test has items that need to be scored by hand, this is the ID of the handscore project (either in own handscoring center, or an ID to identify a subcontractor's handscoring project).	Positive 32-bit integer	xsd:unsignedInt	
	contract		100	N	Contract of this test (e.g. ELPA or OAKS for Oregon's tests).	One or more printable ASCII characters	xsd:token	
	mode		50	Y	Mode of the test. Either 'online', 'paper' or 'scanned'. Here 'paper' means it was a data entry test (meaning the student took the test on paper and someone else then entered the responses in the online system).	online paper scanned	xsd:token	

Category / Node (XML Element)	TDS Field Name (attribute)	XML Hierarchy	Width (chars)	Required	Data Element Description	Acceptable Values	Data Type	Reference
	grade		100	Y	Tested grade.	IT - Infant/toddler PR - Preschool PK - Prekindergarten TK - Transitional Kindergarten KG - Kindergarten 01 - First grade 02 - Second grade 03 - Third grade 04 - Fourth grade 05 - Fifth grade 06 - Sixth grade 07 - Seventh grade 08 - Eighth grade 09 - Ninth grade 10 - Tenth grade 11 - Eleventh grade 12 - Twelfth grade 13 - Grade 13 PS - Postsecondary UG - Ungraded	xsd:token	CEDS [1]: K12 -> Assessments -> Assessment -> AssessmentLevelForWhichDesigned ID #177
	assessmentType		20	Y	Type of assessment	One or more printable ASCII characters, preferably from the list in CEDS. Examples: Summative Formative Interim	xsd:token	[CEDS [1]: K12 -> Assessments -> Assessment -> AssessmentType ID #29
	academicYear		4	Y	Current academic year	1900 <= YYYY <= 9999	xsd:integer	CEDS [1]: K12 -> K12 School -> Session -> SchoolYear ID #243
	assessmentVersion		30	Y	Version of this assessment	String	xsd:token	
Examinee	key	TDSReport: Examinee	16	N	Internal examinee key	Positive 64-bit integer	xsd:unsignedLong	
	isDemo		5	N	True if this is a demo user, false otherwise	True, false	xsd:boolean	

Category / Node (XML Element)	TDS Field Name (attribute)	XML Hierarchy	Width (chars)	Required	Data Element Description	Acceptable Values	Data Type	Reference
ExamineeAttribute	name	TDSReport: Examinee: ExamineeAttribute	50	Y	Name of the attribute.	LastOrSurname FirstName MiddleName Birthdate StudentIdentifier AlternateSSID GradeLevelWhenAssessed Sex HispanicOrLatinoEthnicity AmericanIndianOrAlaskaNative Asian BlackOrAfricanAmerican White NativeHawaiianOrOtherPacificIslander DemographicRaceTwoOrMoreRaces IDEAIndicator LEPStatus Section504Status EconomicDisadvantageStatus LanguageCode EnglishLanguageProficiencyLevel MigrantStatus FirstEntryDateIntoUSSchool LimitedEnglishProficiencyEntryDate LEPExitDate TitleIIILanguageInstructionProgramType PrimaryDisabilityType	xsd:token	CEDS [1] and ART spec [2]. See Table 3 for details.
	value		500	Y	Attribute value	Varies per attribute	xsd:token	
	context		50	Y	Context of the attribute (currently either INITIAL or FINAL).	INITIAL FINAL	xsd:token	-
	contextDate		23	Y	Date and time the attribute was fetched from ART	time+date	xsd:dateTime	-
ExamineeRelationship	entityKey	TDSReport: Examinee: ExamineeRelationship	22	Y	ART unique identifier for the entity referenced in the ExamineeRelationship/name attribute.	Entity identifier + state abbreviation	xsd:token	

Category / Node (XML Element)	TDS Field Name (attribute)	XML Hierarchy	Width (chars)	Required	Data Element Description	Acceptable Values	Data Type	Reference
	name		100	Y	Name of the entity type referred to in the ExamineeRelationship/ entityKey attribute.	DistrictId DistrictName SchoolId SchoolName StateName StudentGroupName	xsd:token	ART [2], reproduced in Table 4 below.
	value		500	Y	Value of the attribute identified by the ExamineeRelationship entityKey and name.	One or more printable ASCII characters	xsd:token	
	context		50	Y	Context of the attribute (currently either INITIAL or FINAL).	INITIAL FINAL	xsd:token	
	contextDate		23	Y	Date and time the attribute was fetched from TR	date+time	xsd:dateTime	
Opportunity	server	TDSReport: Opportunity	128	Y	Name of the TDS server that was used to administer this test.	One or more printable ASCII characters	xsd:token	
	database		128	N	Name of the TDS DB that was used to administer this test.	Zero or more printable ASCII characters	xsd:token	
	key		36	Y	A globally unique identifier for the opportunity (GUID)	One or more printable ASCII characters	xsd:token	
	oppId		16	Y	Opportunity ID, formerly known as vndr_test_event_id. A unique identifier (within client) of the test opportunity.	Positive 64-bit integer	xsd:unsignedLong	
	startDate		23	Y	Date and time the student started the opportunity.	date+time	xsd:dateTime	CEDS [1]: K12 -> Assessments -> Assessment Administration ID #962, #963
	status		50	Y	Status of the opportunity.	appeal completed expired handscoring invalidated paused reported reset scored submitted	xsd:token	

Category / Node (XML Element)	TDS Field Name (attribute)	XML Hierarchy	Width (chars)	Required	Data Element Description	Acceptable Values	Data Type	Reference
	opportunity		8	Y	A counter that counts the number of times a student has taken this test.	Positive 32-bit integer	xsd:unsignedInt	
	statusDate		23	Y	The date and time the status of this opportunity last changed. Generally this is close to the opportunityDateCompleted, but it can be much later, e.g. for resets, invalidations, hand scores being added, etc.	date+time	xsd:dateTime	-
	dateCompleted		23	N	Date the student submitted the opportunity for scoring.	date+time	xsd:dateTime	CEDS [1]: K12 -> Assessments -> Assessment Administration ID #964
	pauseCount		8	Y	number of times Examinee paused the opportunity	Positive 32-bit integer	xsd:unsignedInt	
	itemCount		8	Y	Number of items in the XML file. Note these are presented items plus prefetched items (there could be items the student never saw).	Positive 32-bit integer	xsd:unsignedInt	
	ftCount		8	Y	number of field test items in count	Positive 32-bit integer	xsd:unsignedInt	
	abnormalStarts		8	Y	The number of times the test was restarted after an abrupt end to a test (browser crash, power shutdown, network loss etc.).	Positive 32-bit integer	xsd:unsignedInt	
	gracePeriodRestarts		8	Y	The number of times the student paused the test and restarted it within the grace period (20 minutes).	Positive 32-bit integer	xsd:unsignedInt	
	TAID		128	N	ID of the Test Administrator that administered this test (often the TA's e-mail address)	Zero or more printable ASCII characters	xsd:token	CEDS [1]: K12 -> K12 Staff -> Contact -> Email ID #88
	TAName		128	N	Name of the Test Administrator that administered this test.	Zero or more printable ASCII characters	xsd:token	
	sessionId		128	N	TDS's ID for the session in which this test was taken.	Zero or more printable ASCII characters	xsd:token	

Category / Node (XML Element)	TDS Field Name (attribute)	XML Hierarchy	Width (chars)	Required	Data Element Description	Acceptable Values	Data Type	Reference
	windowId		50	Y	the ID of the window in which the test was administered (E.g. EOC-Spring)	One or more printable ASCII characters	xsd:token	
	windowOpportunity		8	N	A counter that counts the number of times a student has taken this test in this window.	zero or more printable ASCII characters	xsd:token	
	dateForceCompleted		8	N	If a test is actually complete (all items responded to) at the time it expires it might (depending on per-client configuration) instead be "force completed". That is, it is submitted for the student. It will not have status 'expired', but 'scored'. This is the date the "force completion" was done.	date+time	xsd:dateTime	
	clientName		255	Y	Name of the client this test is for (e.g. Oregon).	One or more printable ASCII characters	xsd:token	
	assessmentParticipantSessionPlatformUserAgent		512	Y	A list of product tokens (keywords) with optional comments that identifies the client hardware and software with which the assessment was delivered to the student during the assessment session.Implementation Note: The recommended approach is to store the User-Agent string returned as part of an HTTP header. For example, an assessment session delivery via iPad might have "Mozilla/5.0 (iPad; U; CPU OS 3_2_1 like Mac OS X; en-us) AppleWebKit/531.21.10 (KHTML, like Gecko) Mobile/7B405"	<User-Agent string>	xsd:string	CEDS [1]: K12 -> Assessments -> Assessment Participant Session -> AssessmentParticipantSessionPlatformUserAgent ID #1152
	effectiveDate		10	Y	The first date of the first window for a given assessment.	YYYY-MM-DD, where 2000 <= YYYY <= 9999 01 <= MM <= 12 01 <= DD <= 31	xsd:string	
Segment	id	TDSReport: Opportunity: Segment	250	Y	Segment the item was administered on.	One or more printable ASCII characters	xsd:token	

Category / Node (XML Element)	TDS Field Name (attribute)	XML Hierarchy	Width (chars)	Required	Data Element Description	Acceptable Values	Data Type	Reference
	position		8	Y	Position of the segment on the test.	Positive 32-bit integer, null allowed	xsd:unsignedInt	
	formKey		100	N	ITS key of the form (if algorithm = fixedform).	One or more printable ASCII characters	xsd:token	
	formId		150	N	If the algorithm is fixedform then this is the ID of the form for the segment. Otherwise null.	One or more printable ASCII characters	xsd:token	
	algorithm		50	Y	Item selection algorithm that was used for this segment.	One or more printable ASCII characters	xsd:token	
	algorithmVersion		50	Y	Item selection algorithm version	One or more printable ASCII characters	xsd:token	
Accommodation	type	TDSReport: Opportunity: Accommodation	510	Y	Accommodation or accessibility feature (e.g. 'ColorContrast')	AmericanSignLanguage ColorContrast ClosedCaptioning Language Masking PermissiveMode PrintOnDemand PrintSize StreamlinedInterface TexttoSpeech Translation (Glossary) NonEmbeddedDesignatedSupports NonEmbeddedAccommodations Other	xsd:token	CEDS [1]: K12 -> Assessments -> Assessment Participant Session ID #385 And ART spec [2], also included here as Table 5.
	value		510	Y	accommodation value (e.g. 'Magenta'). Note that there is a one to one relationship between value and code.	One or more printable ASCII characters	xsd:token	
	code		510	Y	Accommodation code (e.g. 'TDS_CCMagenta')	One or more printable ASCII characters	xsd:token	
	segment		8	Y	Segment number the accommodation applies to. A 0 means the accommodation applies to the entire test (all segments).	Positive 32-bit integer, Null allowed	xsd:unsignedInt	

Category / Node (XML Element)	TDS Field Name (attribute)	XML Hierarchy	Width (chars)	Required	Data Element Description	Acceptable Values	Data Type	Reference
Score	measureOf	TDSReport: Opportunity: Score	150	Y	The set of items this value measures. Usually a strand or an AffinityGroup. E.g. Overall or Mathematics-10.2 or Listening.	One or more printable ASCII characters	xsd:token	
	measureLabel		150	Y	Label of this measure. E.g. ScaleScore, PerformanceLevel, Attempted.	One or more printable ASCII characters	xsd:token	
	value		64	Y	Value of the measure. E.g. 1034 (for ScaleScore) or Y (for Attempted).	One or more printable ASCII characters	xsd:token	CEDS [1]: K12 -> Assessments -> Assessment Item -> Assessment Item Response ID #724
	standardError		8	N	Standard error of the measure.	Float, null allowed	xsd:token	
GenericVariable	context	TDSReport: Opportunity: GenericVariable	50	Y	This node is optional but if used all of these attributes are required	One or more printable ASCII characters	xsd:token	
	name		50	Y	General use	One or more printable ASCII characters	xsd:token	
	value		255	Y	General use	One or more printable ASCII characters	xsd:string	
Item	position	TDSReport: Opportunity: Item	8	Y	Ordinal position of item on test	Positive 32-bit integer, null allowed	xsd:unsignedInt	
	segmentId		250	Y	Segment the item was administered on.	One or more printable ASCII characters	xsd:token	
	bankKey		40	Y	Permits items from multiple Item Authoring banks	One or more printable ASCII characters	xsd:token	CEDS [1]: K12 -> Assessments -> Assessment Item ID #1181
	key		40	Y	Internal ID from Item Authoring. This is the item identifier.	Positive 64-bit integer	xsd:unsignedLong	Internal ITS identifier.
	clientId		80	N	How client identifies the item	One or more printable ASCII characters	xsd:token	
	operational		8	Y	1 if operational, 0 if field test	0,1	xsd:unsignedInt	
	isSelected		8	Y	Whether the student submitted his response for scoring or not. Possible values 0 (not submitted) or 1 (submitted).	0,1	xsd:unsignedInt	

Category / Node (XML Element)	TDS Field Name (attribute)	XML Hierarchy	Width (chars)	Required	Data Element Description	Acceptable Values	Data Type	Reference
	format		50	Y	Item type (e.g. MC (multiple choice) or GI (grid item)).	associateInteraction choiceInteraction customInteraction drawingInteraction endAttemptInteraction extendedTextInteraction gapMatchInteraction graphicAssociateInteraction graphicGapMatchInteraction graphicOrderInteraction hotspotInteraction hottextInteraction inlineChoiceInteraction matchInteraction mediaInteraction orderInteraction positionObjectInteraction selectPointInteraction sliderInteraction textEntryInteraction uploadInteraction EBSR EQ ER GI HT HTQ MC MI MS NL SA TI TUT WER WORDLIST Stimulus	xsd:token	CEDS [1]: K12 -> Assessments -> Assessment Item -> Assessment Item APIP Interaction ID #1158
	score		8	Y	number of scorepoints earned by Examinee. -1 means not scored	unsigned float, -1 allowed	xsd:float	

Category / Node (XML Element)	TDS Field Name (attribute)	XML Hierarchy	Width (chars)	Required	Data Element Description	Acceptable Values	Data Type	Reference
	scoreStatus		50	N	Provided by independent item scoring engine	NOTSCORED SCORED SCORINGERROR WAITINGFORMACHINESCORE		
	adminDate		23	Y	Date and time item was administered to Examinee	date+time	xsd:dateTime	
	numberVisits		8	Y	Number of times the student modifies his response to the item.	Positive 32-bit integer	xsd:unsignedInt	
	mimeType		255	Y	MIME type of item response.	One or more printable ASCII characters		
	strand		150	Y	Top level strand in the strand hierarchy the item is on.	One or more printable ASCII characters		
	contentLevel		150	Y	Lowest level strand in the strand hierarchy the item is part of.	One or more printable ASCII characters		
	pageNumber		8	Y	Number of the (online) page the item appears on.	Positive 32-bit integer	xsd:unsignedInt	
	pageVisits		8	Y	Number of times the student visited the (online) page this item is on.	Positive 32-bit integer	xsd:unsignedInt	
	pageTime		8	Y	Time (in milliseconds) the student spent on the (online) page this item is on.	Signed 32-bit integer	xsd:int	
	dropped		8	Y	Whether the item is dropped. If an item was administered but later inactivated the DW might receive a new record with this flag turned on.	0 or 1	xsd:unsignedInt	
Response	type	TDSReport: Opportunity: Item: Response	10	N	Type of responseValue. Possible values 'value' or 'reference'. 'reference' is used for scanned paper tests where the scanned response is not included, but only a reference to the file containing the scanned response.	Value reference <blank allowed>	xsd:token	

Category / Node (XML Element)	TDS Field Name (attribute)	XML Hierarchy	Width (chars)	Required	Data Element Description	Acceptable Values	Data Type	Reference
	<node text>		unlimited	N	If responseType is 'value', then the actual response. Note that both MC responses and CR responses are captured here. If responseType is 'reference' then the filename where the scanned response is saved.		xsd:string	CEDS [1]: K12 -> Assessments -> Assessment Item -> Assessment Item Response ID #724
	date		23	N	Date and time the student responded to the item	date+time	xsd:dateTime	CEDS [1]: K12 -> Assessments -> Assessment Item -> Assessment Item Response ID #959, #958
ScoreInfo	scorePoint	TDSReport: Opportunity: Item: ScoreInfo	8	N	Output of the machine scorer giving reasons for the assigned score. Now also contains dimension scores for certain items.	float, -1 allowed	xsd:float	
	scoreDimension		255	N	Dimension the score is for.	One or more printable ASCII characters	xsd:token	
	scoreStatus		22	N	Provided by independent item scoring engine	NotScored Scored ScoringError WaitingForMachineScore	xsd:token	
	conditionCode		1	N	For hand-scored items and machine-scored NL items	A-Z	xsd:token	
ScoreRationale		TDSReport: Opportunity: Item: ScoreInfo: ScoreRationale						
Message		TDSReport: Opportunity: Item: ScoreInfo: ScoreRationale: Message	unlimited	N	Contains hand-scoring information in JSON format, along with a scorer ID	JSON formatted string	xsd:string	

Category / Node (XML Element)	TDS Field Name (attribute)	XML Hierarchy	Width (chars)	Required	Data Element Description	Acceptable Values	Data Type	Reference
SubScoreList		TDSReport: Opportunity: Item: ScoreInfo: ScoreRationale: SubScoreList		N	SubsccoreList has no attrs, but can have nested ScoreInfo nodes for multi-dimensional items.			
Comment	context	TDSReport: comment	200	Y	Context of the comment (e.g. TESTITEM or GlobalNotes).	One or more printable ASCII characters	xsd:token	
	itemPosition		8	Y	If this was an item level comment (context = TESTITEM), the position of the item the comment was for.	Positive 32-bit integer, Null allowed	xsd:unsignedInt	
	date		23	Y	Date and time comment was entered.	date+time	xsd:dateTime	
	<node text>		unlimited	N			xsd:string	
Score	value	TDSReport: Opportunity: score	10	Y	Score (or ConditionCode if type isn't Final).	One or more printable ASCII characters	xsd:token	
	compName		50	Y	Component name. Dimension: if the score is a dimension score. ScorePoints: if there are no dimensions and this is just a score for the whole item. ConditionCodes: if the score value is actually a condition code (these usually apply to all dimensions).	One or more printable ASCII characters	xsd:token	
	dimension		50	Y	Dimension the score is for.	One or more printable ASCII characters	xsd:token	
	sequence		8	Y	Used to count backreads. 1 for all other types.	Positive 32-bit integer	xsd:unsignedInt	
	conditionCode		10	N	Blank if this record is for a regular score, otherwise the condition code. Only used for final scores.	One or more printable ASCII characters	xsd:token	
	type		50	Y	Type of the score.	Initial Reliability Resolution Backread Final	xsd:token	
	userId		50	Y	ID of the scorer.	One or more printable ASCII characters	xsd:token	

Category / Node (XML Element)	TDS Field Name (attribute)	XML Hierarchy	Width (chars)	Required	Data Element Description	Acceptable Values	Data Type	Reference
	userLastName		50	N	Last name of the scorer.	One or more printable ASCII characters	xsd:token	
	userFirstName		50	N	First name of the scorer.	One or more printable ASCII characters	xsd:token	
ToolUsage	toolType	TDSReport: ToolUsage	100	Y	Tools used on certain items or item groups (passages). For instance TTS (TextToSpeech). Type of the tool.	One or more printable ASCII characters	xsd:token	
	toolCode		100	Y	Code for the tool.	One or more printable ASCII characters	xsd:token	
ToolPage	page	TDSReport: ToolUsage: ToolPage	8	Y	(Online) page the tool was used on.	Positive 32-bit integer	xsd:unsignedInt	
	groupId		59	Y	Item or Passage ID	One or more printable ASCII characters	xsd:token	
	count		8	Y	Number of times the tool was used.	Positive 32-bit integer	xsd:unsignedInt	

Table 2: Test Integration XML Output Format Description

The examineeAttribute values are the same as used for test registration. Student identity information (name, birthdate and studentIdentifier) is required at registration but may be removed before the data is transmitted from the test delivery system to the data warehouse. Removal is in accordance with local privacy policies. Fields for which this applies are marked "Reg – Y, Rep – N" in the "Required" column below, where Reg = Registration and Rep = Reporting.

Field Name	Reference	Width	Required	Data Element Description	Type	Acceptable Values	Definitions	Examples	Business Rules
LastOrSurname	CEDS ID 172 K12->K12 Student->Identity->Name	35	Reg – Y Rep - N	Student Last Name	Alphanumeric/special xsd:token	One or more printable ASCII characters		Sojka	FirstName and LastOrSurname are required fields, but TR can be configured to not transmit this data if the State wishes to withhold identity data
FirstName	CEDS ID 115 K12->K12 Student->Identity->Name	35	Reg – Y Rep - N	Student First Name	Alphanumeric/special xsd:token	One or more printable ASCII characters		Bud	FirstName and LastOrSurname are required fields, but TR can be configured to not transmit this data if the State wishes to withhold identity data

Field Name	Reference	Width	Required	Data Element Description	Type	Acceptable Values	Definitions	Examples	Business Rules
MiddleName	CEDS ID 184 K12->K12 Student->Identity->Name	35	N	Student Middle Name	Alphanumeric/special xsd:token	One or more printable ASCII characters		Johan	
Birthdate	CEDS ID 33 K12->K12 Student->Demographic	10	Reg – N Rep - N	The year, month and day on which a person was born, in the format YYYY-MM-DD (zero-padded)	Numeric+ dash xsd:string	1900 <= YYYY <= 9999 01 <= MM <= 12 01 <= DD <= 31		2013-08-31	Add leading zero if less than 2 digit month or day
StudentIdentifier	CEDS ID 1071 K12->K12 Student->Identity->Identification	40	Reg – Y Rep - N	State assigned student Identifier which is unique within that state. Every student should have a unique SSID within their state.	Alphanum xsd:token	One or more printable ASCII characters		82811007	
AlternateSSID	N/A	50	Y	A State assigned student Identifier which is unique within that state. This identifier is used by states that do not wish to share student personal identifying information outside of state-deployed systems. Components sending data to Consortium-deployed systems would use this alternate identifier rather than the student's SSID.	Alphanum xsd:token	One or more printable ASCII characters		32547685 ABC	Do not validate SSIDs differently across different states.
GradeLevelWhenAssessed	CEDS ID 126 K12 -> Assessments -> Assessment Registration	2	Y	Student's enrolled grade.	Alphanum xsd:token	IT PR PK TK KG 01 02 03 04 05 06 07 08 09 10 11 12	IT - Infant/toddler PR - Preschool PK - Prekindergarten TK - Transitional Kindergarten KG - Kindergarten 01 - First grade 02 - Second grade 03 - Third grade 04 - Fourth grade 05 - Fifth grade 06 - Sixth grade 07 - Seventh grade 08 - Eighth grade 09 - Ninth grade 10 - Tenth grade 11 - Eleventh grade	05	Add leading zero if less than 2 digits

Field Name	Reference	Width	Required	Data Element Description	Type	Acceptable Values	Definitions	Examples	Business Rules
						13 PS UG	12 - Twelfth grade 13 - Grade 13 PS - Postsecondary UG - Ungraded		
Sex	CEDS ID 255 K12->K12 Student->Demographic	6	Y	Student's gender	enum xsd:token	Male Female		Female	
HispanicOrLatinoEthnicity	CEDS ID 144 K12->K12 Student->Demographic	3	Y	Hispanic Ethnic Flag	enum xsd:token	Yes No		No	One or more race fields (below) must also be marked 'Yes'
AmericanIndianOrAlaskaNative	CEDS ID 16 K12->K12 Student->Demographic	3	Y	American Indian/Alaskan Native Race Flag	enum xsd:token	Yes No		Yes	At least one race field must be marked Yes
Asian	CEDS ID 20 K12->K12 Student->Demographic	3	Y	Asian Race Flag	enum xsd:token	Yes No		No	At least one race field must be marked Yes
BlackOrAfricanAmerican	CEDS ID 34 K12->K12 Student->Demographic	3	Y	African American Race Flag	enum xsd:token	Yes No		Yes	At least one race field must be marked Yes
White	CEDS ID 301 K12->K12 Student->Demographic	3	Y	White Race Flag	enum xsd:token	Yes No		No	At least one race field must be marked Yes
NativeHawaiianOrOtherPacificIslander	CEDS ID 192 K12->K12 Student->Demographic	3	Y	Native Hawaiian/Other Pacific Islander Race Flag	enum xsd:token	Yes No		Yes	At least one race field must be marked Yes
DemographicRaceTwoOrMoreRaces	CEDS ID 973 K12 -> K12 Student -> Demographic	3	Y	A person having origins in any of more than one of the racial groups.	enum xsd:token	Yes No		Yes	At least one race field must be marked Yes

Field Name	Reference	Width	Required	Data Element Description	Type	Acceptable Values	Definitions	Examples	Business Rules
IDEAIndicator	CEDS ID 151 K12->K12 Student->Disability	3	Y	Student Enrolled in IEP	enum xsd:token	Yes No		No	
LEPStatus	CEDS ID 180 K12 -> K12 Student -> Limited English Proficiency	3	Y	Student identified as LEP	enum xsd:token	Yes No		Yes	
Section504Status	CEDS ID 249 K12 -> K12 Student -> Disability	22	Y	Student with 504 plan	enum xsd:token	Yes No Unknown/Cannot Provide		No	
EconomicDisadvantageStatus	CEDS ID 86 K12 -> K12 Student -> Economically Disadvantaged -> EconomicDisadvantageStatus	3	Y	An indication that the student met the State criteria for classification as having an economic disadvantage.	enum xsd:token	Yes No		Yes	This field is not CEDS compliant due to the name change from TitleITargetedAssistanceParticipationStatus
LanguageCode	CEDS ID 317 K12 -> K12 Student -> Language and CEDS Language Codes	3	N	The code for the specific language or dialect that a person uses to communicate.	enum xsd:token	see http://ceds.ed.gov/languageCodes.aspx		fiu	
EnglishLanguageProficiencyLevel	N/A	20	N	An indication of the progress made by a student toward English proficiency	Alphanum xsd:token	One or more printable ASCII characters		PROGRESS	This field is not CEDS compliant due to the name change from TitleIIIAccountabilityProgressStatus (CEDS ID 536). Furthermore, the Acceptable Values have changed to non-enum, alphanum entry.
MigrantStatus	CEDS ID 189 K12 -> K12 Student -> Migrant -> MigrantStatus	3	N	Persons who are, or whose parents or spouses are, migratory agricultural workers, including migratory dairy workers, or migratory fishers, and who, in the preceding 36 months, in order to obtain, or accompany such parents or spouses, in order to	enum xsd:token	Yes No <blank>		Yes	

Field Name	Reference	Width	Required	Data Element Description	Type	Acceptable Values	Definitions	Examples	Business Rules
				obtain, temporary or seasonal employment in agricultural or fishing work (A) have moved from one LEA to another; (B) in a state that comprises a single LEA, have moved from one administrative area to another within such LEA; or (C) reside in an LEA of more than 15,000 square miles, and migrate a distance of 20 miles or more to a temporary residence to engage in a fishing activity.					
FirstEntryDateIntoUSSchool	CEDS ID 529 K12 -> K12 Student -> Immigrant	10	N	The year, month and day of a person's initial enrollment into a United States school.	Numeric+ dash xsd:string	YYYY-MM-DD <blank>		2013-08-31	Add leading zero to MM and DD if less than 2 digits
LimitedEnglishProficiencyEntryDate	CEDS ID 1247 K12 -> K12 Student -> Limited English Proficiency	10	N	The year, month and day a student classified as limited English proficient entered the LEP program.	Numeric+ dash xsd:token	YYYY-MM-DD <blank>		2013-08-31	Add leading zero to MM and DD if less than 2 digits
LEPExitDate	CEDS ID 570 K12 -> K12 Student -> Limited English Proficiency	10	N	The year, month and day a student classified as limited English proficient exited the LEP program.	Numeric+ dash xsd:token	YYYY-MM-DD <blank>		2013-08-31	Add leading zero to MM and DD if less than 2 digits
TitleIIILanguageInstructionProgramType	CEDS ID 447 K12 -> K12 School -> Institution Characteristics	27	N	Title III Language Instruction Program Type	enum xsd:token	DualLanguage, TwoWayImmersion, TransitionalBilingual, DevelopmentalBilingual, HeritageLanguage, ShelteredEnglishInstruction, StructuredEnglishImmersion, SDAIE, ContentBasedESL, PullOutESL, Other	DualLanguage - Dual language TwoWayImmersion - Two-way immersion TransitionalBilingual - Transitional bilingual DevelopmentalBilingual - Developmental bilingual HeritageLanguage - Heritage language ShelteredEnglishInstruction - Sheltered English instruction StructuredEnglishImme	HeritageLanguage	

Field Name	Reference	Width	Required	Data Element Description	Type	Acceptable Values	Definitions	Examples	Business Rules
							rsion - Structured English immersion SDAIE - Specially designed academic instruction delivered in English (SDAIE) ContentBasedESL - Content-based ESL PullOutESL - Pull-out ESL Other - Other		
PrimaryDisabilityType	CEDS ID 218 K12 -> K12 Student -> Disability	3	N	The major or overriding disability condition that best describes a person's impairment.	enum xsd:token	AUT, DB, DD, EMN, HI, ID, MD, OI, OHI, SLD, SLI, TBI, VI	AUT - Autism DB - Deaf-blindness DD - Developmental delay EMN - Emotional disturbance HI - Hearing impairment ID - Intellectual Disability MD - Multiple disabilities OI - Orthopedic impairment OHI - Other health impairment SLD - Specific learning disability SLI - Speech or language impairment TBI - Traumatic brain injury VI - Visual impairment	EMN	

Table 3: examineeAttribute Details (from ART specification [2], Table 23)

Field Name	Reference	Width	Required	Data Element Description	Type	Acceptable Values	Definitions	Examples	Business Rules
StateAbbreviation	CEDS ID 267 K12 -> SEA -> Address USPS	2	Y	2 character state code	enum xsd:token	Two-character US State identifier as defined by CEDS and extended as follows: AA, AE, AP, TS, OT.	AA: Armed Forces Americas AE: Armed Forces Africa, Canada, Europe and Mideast AP: Armed Forces Pacific	WA	Must be present in database prior to adding students to it

Field Name	Reference	Width	Required	Data Element Description	Type	Acceptable Values	Definitions	Examples	Business Rules
							TS: Test State OT: Other		
DistrictId	CEDS ID 637 K12 -> K12 Student -> Enrollment	40	Y	The district responsible for specific educational services and/or instruction of the student.	Alphanum xsd:token	One or more printable ASCII characters		71715	Must be present in database prior to adding students to it
DistrictName	CEDS ID 204 K12 -> LEA -> Identification	60	Y	The name of a non-person entity (in this case a district).	Alphanum xsd:token	One or more printable ASCII characters		Oakland Unified	
SchoolId	CEDS ID 1069 K12->K12 Student->Enrollment	40	Y	The school responsible for specific education services and/or instruction of the student.	Alphanum xsd:token	One or more printable ASCII characters		8716411	Must be present in database and associated with Attending District IRN (ResponsibleDistrictIdentifier)
SchoolName	CEDS ID 191 K12 -> K12 School -> Identification	60	Y	Institution Name	Alphanumeric/special xsd:token	One or more printable ASCII characters		Lake Los Angeles Elementary	
StateName	n/a	50	Y	Full state name	Alpha xsd:token	One or more printable ASCII characters for State name, spaces and commas allowed.		California	
StudentGroupName	N/A	50	Y	Name of student group	Alphanum xsd:token	One or more printable ASCII characters		Brennan Math	

Table 4: ExamineeRelationship/name Definitions

Accessibility Features

For Smarter Balanced exams, Accessibility Features are divided into three categories: Universal Tools, which are made available to all students; Designated Supports, which require pre-authorization by a teacher or administrator; and Accommodations, which require a student to have a documented disability or IEP plan. The Smarter Balanced “Usability, Accessibility, and Accommodations Guidelines” offer more detail about the categories and specific features. Because the file format predates this categorization, the <Accommodation> element is used to report all accessibility feature types. The types whose acceptable values (codes) begin with TDS_ are accommodations; those beginning with NEDS_ are Non-Embedded Designated Supports; those beginning with NEA_ are Non-Embedded Accommodations.

Field Name	Reference	Width	Required	Data Element Description	Type	Acceptable Values	Definitions	Examples
AmericanSignLanguage	N/A	10	N	Allows students to view test content translated into ASL by a human signer.	enum xsd:token	TDS_ASL0 TDS_ASL1	Do not show ASL videos: TDS_ASL0 Show ASL videos: TDS_ASL1	TDS_ASL1
ColorContrast	N/A	40	N	By default, tests are presented with black text on a white background. Students who require a different combination of text and background should be assigned the appropriate setting.	enum xsd:token	TDS_CC0 TDS_CCInvert TDS_CCMagenta TDS_CCMedGrayLtGray TDS_CCYellowB	Black on White: TDS_CC0 Reverse Contrast: TDS_CCInvert Black on Rose: TDS_CCMagenta Medium Gray on Light Gray: TDS_CCMedGrayLtGray Yellow on Blue: TDS_CCYellowB	TDS_CC0
ClosedCaptioning	N/A	20	N	The Closed Captioning accommodation will not be available for the Field Test; however, for students who would typically have received this accommodation, the Closed Captioning setting can still be selected in TIDE. For the Field Test only, selecting this setting will suppress the Listening portion of the ELA test.	enum xsd:token	TDS_ClosedCap0 TDS_ClosedCap1	Closed Captioning Not Available: TDS_ClosedCap0 Closed Captioning Available: TDS_ClosedCap1	TDS_ClosedCap0
Language	N/A	20	N	All tests are presented in English. Students who qualify for a Spanish language translation will view items in both English and Spanish (stacked format). Students who require tests in braille should have the braille option selected.	enum xsd:token	ENU ENU-Braille ESN	English: ENU Braille: ENU-Braille Spanish (Stacked Translation): ESN (Math only)	ENU
Masking	N/A	15	N	Allows blocking of content that is not of immediate need or that may be distracting to the student.	enum xsd:token	TDS_Masking0 TDS_Masking1	Masking Not Available: TDS_Masking0 Masking Available: TDS_Masking1	TDS_Masking0
PermissiveMode	N/A	10	N	Permissive mode should be enabled for students who require access to accessibility software in order to interact with the test (e.g., screen readers, magnifiers, etc.). When permissive mode is disabled, the only application that can be open on the computer is the secure browser.	enum xsd:token	TDS_PM0 TDS_PM1	Permissive Mode Disabled: TDS_PM0 Permissive Mode Enabled: TDS_PM1	TDS_PM0

Field Name	Reference	Width	Required	Data Element Description	Type	Acceptable Values	Definitions	Examples
PrintOnDemand	N/A	40	N	Sets student's print on demand accommodation. Allows student to request printing of stimuli.	enum xsd:token	TDS_PoD0 TDS_PoD_Stim	None: TDS_PoD0 Stimuli: TDS_PoD_Stim	TDS_PoD0
PrintSize	N/A	10	N	Sets student's print size accommodation. The print size the student should have when starting a test. The selected print size becomes the default for all items in that student's test. * The default print size for all tests is 14 pt. * The default font for ELA tests is Times New Roman. * The default font for mathematics tests is Verdana.	enum xsd:token	TDS_PS_L0 TDS_PS_L1 TDS_PS_L2 TDS_PS_L3 TDS_PS_L4	No default zoom applied: TDS_PS_L0 Level 1: TDS_PS_L1 Level 2: TDS_PS_L2 Level 3: TDS_PS_L3 Level 4: TDS_PS_L4	TDS_PS_L0
StreamlinedInterface	N/A	20	N	By default, all tests use the standard interface. This interface is compatible with all supported desktops and tablets. The streamlined interface presents the test in an alternate, simplified format in which the items are displayed below the stimuli. All tool and navigation buttons are on the bottom of the screen. Important: The streamlined interface is not intended to be tablet compatible.	enum xsd:token	TDS_TS_Modern TDS_TS_Accessibility	Standard: TDS_TS_Modern Streamlined: TDS_TS_Accessibility	TDS_TS_Modern
TexttoSpeech	N/A	40	N	Sets student's text to speech accommodation. Students with this test setting enabled may listen to the read-aloud of the items and/or stimuli in the assessment. Note: Text-to-Speech is not available in Spanish.	enum xsd:token	TDS_TTS0 TDS_TTS_Item TDS_TTS_Stim TDS_TTS_Stim&TDS_TTS_Item	None: TDS_TTS0 Items Only: TDS_TTS_Item (ELA only) Stimuli Only: TDS_TTS_Stim (ELA only) Stimuli and Items: TDS_TTS_Stim&TDS_TTS_Item	TDS_TTS0

Field Name	Reference	Width	Required	Data Element Description	Type	Acceptable Values	Definitions	Examples
Translation (Glossary)	N/A	50	N	Sets student's glossary accommodation. Students can open a glossary to view terms presented on the test that may be unfamiliar to them. By design, all students can access the English glossary word list as a universal tool, unless this is disabled ("None") or overridden by another language. * If a combination glossary is selected (e.g., English and Arabic or English and Russian), then the student will have access to both. * If a single glossary is selected (e.g., Mandarin), then the student will only have access to that glossary. The English glossary will not be available. Note: The English glossary is available for both ELA and mathematics tests. Translated glossaries are available for mathematics tests only.	enum xsd:token	TDS_WL_Glossary TDS_WL_ArabicGloss TDS_WL_CantoneseGloss TDS_WL_ESNGlossary TDS_WL_KoreanGloss TDS_WL_MandarinGloss TDS_WL_PunjabiGloss TDS_WL_RussianGloss TDS_WL_TagalGloss TDS_WL_UkrainianGloss TDS_WL_VietnameseGloss TDS_WL_Glossary&TDS_WL_ArabicGloss TDS_WL_Glossary&TDS_WL_CantoneseGloss TDS_WL_Glossary&TDS_WL_ESNGlossary TDS_WL_Glossary&TDS_WL_KoreanGloss TDS_WL_Glossary&TDS_WL_MandarinGloss TDS_WL_Glossary&TDS_WL_PunjabiGloss TDS_WL_Glossary&TDS_WL_RussianGloss TDS_WL_Glossary&TDS_WL_TagalGloss TDS_WL_Glossary&TDS_WL_UkrainianGloss TDS_WL_Glossary&TDS_WL_VietnameseGloss TDS_WL0	English: TDS_WL_Glossary Arabic: TDS_WL_ArabicGloss (Math only) Cantonese: TDS_WL_CantoneseGloss (Math only) Spanish: TDS_WL_ESNGlossary (Math only) Korean: TDS_WL_KoreanGloss (Math only) Mandarin: TDS_WL_MandarinGloss (Math only) Punjabi: TDS_WL_PunjabiGloss (Math only) Russian: TDS_WL_RussianGloss (Math only) Filipino: TDS_WL_TagalGloss (Math only) Ukrainian: TDS_WL_UkrainianGloss (Math only) Vietnamese: TDS_WL_VietnameseGloss (Math only) English & Arabic: TDS_WL_Glossary&TDS_WL_ArabicGloss (Math only) English & Cantonese: TDS_WL_Glossary&TDS_WL_CantoneseGloss (Math only) English & Spanish: TDS_WL_Glossary&TDS_WL_ESNGlossary (Math only) English & Korean: TDS_WL_Glossary&TDS_WL_KoreanGloss (Math only) English & Mandarin: TDS_WL_Glossary&TDS_WL_MandarinGloss (Math only) English & Punjabi:	TDS_WL0

Field Name	Reference	Width	Required	Data Element Description	Type	Acceptable Values	Definitions	Examples
							TDS_WL_Glossary&TDS_WL_PunjabiGloss (Math only) English & Russian: TDS_WL_Glossary&TDS_WL_RussianGloss (Math only) English & Filipino: TDS_WL_Glossary&TDS_WL_TagalGloss (Math only) English & Ukrainian: TDS_WL_Glossary&TDS_WL_UkrainianGloss (Math only) English & Vietnamese: TDS_WL_Glossary&TDS_WL_VietnameseGloss (Math only) None: TDS_WL0	
NonEmbeddedDesignatedSupports	N/A	40	N	Some designated supports may need to be provided to students during testing. These should be provided only to those students who are unable to use the embedded test settings.	enum xsd:token	NEDS0 NEDS_BD NEDS_CC NEDS_CO NEDS_Mag NEDS_RA_Items NEDS_SC_Items NEDS_SS NEDS_TArabic NEDS_TCantonese NEDS_TFilipino NEDS_TKorean NEDS_TMandarin NEDS_TPunjabi NEDS_TRussian NEDS_TSpanish NEDS_TUkrainian NEDS_TVietnamese NEDS_TransDirs	**** Non-Embedded Designated Supports: ELA **** None: NEDS0 Bilingual Dictionary: NEDS_BD Color Contrast: NEDS_CC Color Overlay: NEDS_CO Magnification: NEDS_Mag Read Aloud Items: NEDS_RA_Items Scribe Items (Non-Writing): NEDS_SC_Items Separate Setting: NEDS_SS **** Non-Embedded Designated Supports: Math **** None: NEDS0 Color Contrast: NEDS_CC Color Overlay: NEDS_CO Magnification: NEDS_Mag Read Aloud Items: NEDS_RA_Items Scribe Items (Non-Writing): NEDS_SC_Items Separate Setting: NEDS_SS Glossary - Arabic: NEDS_TArabic Glossary - Cantonese: NEDS_TCantonese	NEDS_CO

Field Name	Reference	Width	Required	Data Element Description	Type	Acceptable Values	Definitions	Examples
							Glossary - Filipino: NEDS_TFilipino Glossary - Korean: NEDS_TKorean Glossary - Mandarin: NEDS_TMandarin Glossary - Punjabi: NEDS_TPunjabi Glossary - Russian: NEDS_TRussian Glossary - Spanish: NEDS_TSpanish Glossary - Ukrainian: NEDS_TUkrainian Glossary - Vietnamese: NEDS_TVietnamese Translated test directions: NEDS_TransDirs	
NonEmbeddedAccommodations	N/A	20	N	Some accommodations may need to be provided to students during testing. These should be provided only to those students who are unable to use the embedded test accommodations.	enum xsd:token	NEA0 NEA_AR NEA_RA_Stimuli NEA_SC_WritItems NEA_STT NEA_Abacus NEA_Calc NEA_MT NEA_NoiseBuf	None: NEA0 Alternate Response Options: NEA_AR Read Aloud Stimuli: NEA_RA_Stimuli (ELA only) Scribe Items (Writing): NEA_SC_WritItems (ELA only) Speech-to-Text: NEA_STT Abacus: NEA_Abacus (Math only) Calculator: NEA_Calc (Math only) Multiplication Table: NEA_MT (Math only) Noise buffers: NEA_NoiseBuf	NEA_STT
Other	N/A	300	N	Other designated supports or accommodations that are not listed here.	Alphanum xsd:token	One or more printable ASCII characters		Student requires soothing music

Table 5: Accessibility Feature Definitions

Accessibility Feature Use Codes

Raw information regarding accessibility feature use is reported in the <Accommodation> elements as described in the table above. For each accommodation used by the student, a derivative "feature use code" is reported in a Score element. In these elements, the "measureLabel" property is set to "accommodation", the "measureOf" property is set to the accommodation type, and the "score" property is set to one of "feature use codes" in the table below. The current open source solution does not track whether the feature was **designated** for a student and only tracks **uses** in select cases. Accordingly, only values 3, 4, 6, 7 and 8 are likely to appear in test results. The other values are defined to provide for future enhancement.

Feature Use Code	Designated	Available	Used	Notes	Reported by v1
0	unknown	unknown	unknown		
1	unknown	unknown	No		
2	unknown	unknown	Yes		
3	unknown	No	unknown		X
4	unknown	No	No		X
5	unknown	No	Yes	Invalid state	
6	unknown	Yes	unknown		X
7	unknown	Yes	No		X
8	unknown	Yes	Yes		X
9	No	unknown	unknown		
10	No	unknown	No		
11	No	unknown	Yes	Testing irregularity	
12	No	No	unknown		
13	No	No	No		
14	No	No	Yes	Invalid state	

15	No	Yes	unknown		
16	No	Yes	No		
17	No	Yes	Yes	Testing irregularity	
18	Yes	unknown	unknown		
19	Yes	unknown	No		
20	Yes	unknown	Yes		
21	Yes	No	unknown	Testing irregularity	
22	Yes	No	No	Testing irregularity	
23	Yes	No	Yes	Invalid state	
24	Yes	Yes	unknown		
25	Yes	Yes	No		
26	Yes	Yes	Yes		

Table 6: Accessibility Feature Use Codes

Scores Used by Smarter Balanced Assessments

Smarter Balanced and related assessments report on overall scaled score and either three (math) or four (ELA) claim scores. The scaled score is mapped to one of four achievement levels. The claim scores are mapped to one of three performance ratings. Claim scores are on the same scale as the overall score. The following table indicates how these scores and the accommodations appear in the "Score" elements of the test result format.

measureOf	measureLabel	value	standardError	Description
Overall	ScaleScore	xsd:decimal	xsd:decimal	The overall scale score for the entire test.
Overall	PerformanceLevel	1-4	not included	The achievement level corresponding to the scale score.
Reading	ScaleScore	xsd:decimal	xsd:decimal	The scale score for the "Reading" claim (ELA test only).

Reading	PerformanceLevel	1-3	not included	The performance level for the “Reading” claim (ELA test only).
Writing	ScaleScore	xsd:decimal	xsd:decimal	The scale score for the “Writing” claim (ELA test only).
Writing	PerformanceLevel	1-3	not included	The performance level for the “Writing” claim (ELA test only).
Listening	ScaleScore	xsd:decimal	xsd:decimal	The scale score for the “Listening” claim (ELA test only).
Listening	PerformanceLevel	1-3	not included	The performance level for the “Listening” claim (ELA test only).
Research	ScaleScore	xsd:decimal	xsd:decimal	The scale score for the “Research and Inquiry” claim (ELA test only).
Research	PerformanceLevel	1-3	not included	The performance level for the “Research and Inquiry” claim (ELA test only).
Concepts	ScaleScore	xsd:decimal	xsd:decimal	The scale score for the “Concepts and Procedures” claim (Math test only).
Concepts	PerformanceLevel	1-3	not included	The performance level for the “Concepts and Procedures” claim (Math test only).
PSMDA	ScaleScore	xsd:decimal	xsd:decimal	The scale score for the “Problem Solving and Modeling & Data Analysis” claim (Math test only).
PSMDA	PerformanceLevel	1-3	not included	The performance level for the “Problem Solving and Modeling & Data Analysis” claim (Math test only).
Reasoning	ScaleScore	xsd:decimal	xsd:decimal	The scale score for the “Communicating Reasoning” claim (Math test only).
Reasoning	PerformanceLevel	1-3	not included	The performance level for the “Communicating Reasoning” claim (Math test only).
Calculator	Accommodation	Feature use code 0-26	not included	Reports use of the “Calculator” accessibility feature. (Only present if the feature use code has a relevant value)
Print on Demand	Accommodation	Feature use code 0-26	not included	Reports use of the “Print on Demand” accessibility feature. (Only present if the feature use code has a relevant value)

other accommodations	Accommodation	Feature use code 0-26	not included	Accommodations only appear made available to or used by the student.

Test Integration Format XSD

The following section contains the XSD describing the TDSReport XML file, which is the file sent by the Test Integration component to the Data Warehouse(s).

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified">
	<xs:element name="TDSReport">
		<xs:complexType>
			<xs:sequence>
				<xs:element name="Test" minOccurs="1" maxOccurs="1">
					<xs:complexType>
						<xs:attribute name="name" use="required" />
						<xs:attribute name="subject" use="required" />
						<xs:attribute name="testId" use="required" />
						<xs:attribute name="bankKey" type="xs:unsignedInt" />
						<xs:attribute name="contract" use="required" />
						<xs:attribute name="mode" use="required">
							<xs:simpleType>
								<xs:restriction base="xs:token">
									<xs:enumeration value="online" />
									<xs:enumeration value="paper" />
									<xs:enumeration value="scanned" />
								</xs:restriction>
							</xs:simpleType>
						</xs:attribute>
						<xs:attribute name="grade" use="required" />
	<!-- not expected to be used for open source, but may be needed for internal purposes -->
						<xs:attribute name="handScoreProject" type="xs:unsignedInt" />
	<!-- new fields requested for open source -->
	<xs:attribute name="assessmentType" use="required" />
	<xs:attribute name="academicYear" use="required" type="xs:unsignedInt" />
	<xs:attribute name="assessmentVersion" use="required" />
	</xs:complexType>
				</xs:element>
				<xs:element name="Examinee" minOccurs="1" maxOccurs="1">
					<xs:complexType>
	<xs:choice minOccurs="0" maxOccurs="unbounded">
						<xs:element name="ExamineeAttribute">
							<xs:complexType>
								<xs:attribute name="context" use="required" type="Context" />
								<xs:attribute name="name" use="required" />
								<xs:attribute name="value" />
								<xs:attribute name="contextDate" use="required" type="xs:dateTime" />
							</xs:complexType>
						</xs:element>
```

```
                                        <xs:element name="ExamineeRelationship">
                                                <xs:complexType>
                                                        <xs:attribute name="context" use="required" type="Context" />
                                                        <xs:attribute name="name" use="required" />
                                                        <xs:attribute name="entityKey" type="xs:unsignedLong" />
                                                        <xs:attribute name="value" />
                                                        <xs:attribute name="contextDate" use="required" type="xs:dateTime" />
                                                </xs:complexType>
                                        </xs:element>
                                </xs:choice>
<!-- negative values are used by TDS for testing. -->
                                <xs:attribute name="key" type="xs:long" />
                        </xs:complexType>
                </xs:element>
                <xs:element name="Opportunity" minOccurs="1" maxOccurs="1">
                        <xs:complexType>
                                <xs:sequence>
  <!-- note: DTD has minOccurs=1, but we could get an invalidation for a joined but
  not-started test; no seg will have been initialized in this case -->
                                        <xs:element name="Segment" minOccurs="0" maxOccurs="unbounded">
                                                <xs:complexType>
                                                        <xs:attribute name="id" use="required" />
                                                        <xs:attribute name="position" use="required">
                                                                <xs:simpleType>
                                                                        <xs:restriction base="xs:unsignedByte">
                                                                                <xs:minInclusive value="1" />
                                                                        </xs:restriction>
                                                                </xs:simpleType>
                                                        </xs:attribute>
                                                        <xs:attribute name="formId" />
                                                        <xs:attribute name="formKey" />
                                                        <xs:attribute name="algorithm" use="required" />
      <!-- new field requested for open source -->
      <xs:attribute name="algorithmVersion" use="required" />
                                                </xs:complexType>
                                        </xs:element>
                                        <xs:element name="Accommodation" minOccurs="0" maxOccurs="unbounded">
                                                <xs:complexType>
                                                        <xs:attribute name="type" use="required" />
                                                        <xs:attribute name="value" use="required" />
      <!-- DTD says implied, but this cannot be null -->
                                                        <xs:attribute name="code" use="required" />
      <!-- DTD says implied, but this will always be populated; 0 if not segment-oriented -->
      <xs:attribute name="segment" use="required">
        <xs:simpleType>
          <xs:restriction base="xs:unsignedInt">
```

```
                <xs:minInclusive value="0" />
              </xs:restriction>
            </xs:simpleType>
          </xs:attribute>
          <xs:attribute name="context" use="required" type="Context" />
          <xs:attribute name="contextDate" use="required" type="xs:dateTime" />
                                        </xs:complexType>
                                    </xs:element>
                                    <xs:element name="Score" minOccurs="0" maxOccurs="unbounded">
                                        <xs:complexType>
                                            <xs:attribute name="measureOf" use="required" />
                                            <xs:attribute name="measureLabel" use="required" />
                                            <xs:attribute name="value" use="required" />
                                            <xs:attribute name="standardError" type="NullableFloat" />
                                        </xs:complexType>
                                    </xs:element>
                                    <xs:element name="GenericVariable" minOccurs="0" maxOccurs="unbounded">
                                        <xs:complexType>
                                            <xs:attribute name="context" use="required" />
                                            <xs:attribute name="name" use="required" />
                                            <xs:attribute name="value" use="required" />
                                        </xs:complexType>
                                    </xs:element>
                                    <xs:element name="Item" minOccurs="0" maxOccurs="unbounded">
                                        <xs:complexType>
                                            <xs:sequence>
                                                <xs:element name="Response" minOccurs="0" maxOccurs="1">
                                                    <xs:complexType mixed="true">
              <xs:attribute name="date" type="xs:dateTime" />
              <xs:attribute name="type">
                <xs:simpleType>
                  <xs:restriction base="xs:token">
                    <xs:enumeration value="value" />
                    <xs:enumeration value="reference" />
                    <xs:enumeration value="" />
                  </xs:restriction>
                </xs:simpleType>
              </xs:attribute>
                                                    </xs:complexType>
                                                </xs:element>
          <xs:element name="ScoreInfo" type="ScoreInfoType" minOccurs="0" maxOccurs="1" />
                                            </xs:sequence>
                                            <xs:attribute name="position" use="required" type="xs:unsignedInt" />
                                            <xs:attribute name="segmentId" use="required" />
                                            <xs:attribute name="bankKey" use="required" type="xs:unsignedInt" />
                                            <xs:attribute name="key" use="required" type="xs:unsignedInt" />
```

```
                                                    <xs:attribute name="operational" use="required" type="Bit" />
                                                    <xs:attribute name="isSelected" use="required" type="Bit" />
                                                    <xs:attribute name="format" use="required" />
                                                    <xs:attribute name="score" use="required" type="UFloatAllowNegativeOne" />
<!-- may not be set for unselected items, or may be set to NOTSCORED -->
<xs:attribute name="scoreStatus">
  <xs:simpleType>
    <xs:restriction base="xs:token">
      <xs:enumeration value="NOTSCORED" />
      <xs:enumeration value="SCORED" />
      <xs:enumeration value="WAITINGFORMACHINESCORE" />
      <xs:enumeration value="SCORINGERROR" />
      <!-- future -->
      <xs:enumeration value="APPEALED" />
    </xs:restriction>
  </xs:simpleType>
</xs:attribute>
                                                    <xs:attribute name="adminDate" use="required" type="xs:dateTime" />
                                                    <xs:attribute name="numberVisits" use="required" type="xs:unsignedInt" />

<xs:attribute name="mimeType" use="required">
  <xs:simpleType>
    <xs:restriction base="xs:token">
      <xs:enumeration value="text/plain" />
      <xs:enumeration value="text/xml" />
      <xs:enumeration value="text/html" />
      <xs:enumeration value="audio/ogg" />
    </xs:restriction>
  </xs:simpleType>
</xs:attribute>
                                                    <xs:attribute name="clientId" />
                                                    <xs:attribute name="strand" use="required" />
                                                    <xs:attribute name="contentLevel" use="required" />
                                                    <xs:attribute name="pageNumber" use="required" type="xs:unsignedInt" />
                                                    <xs:attribute name="pageVisits" use="required" type="xs:unsignedInt" />
<!-- this should really be unsignedInt, but there are rare occassions
where it cannot be calculated correctly and we get a negative value.  -->
                                                    <xs:attribute name="pageTime" use="required" type="xs:int" />
                                                    <xs:attribute name="dropped" use="required" type="Bit" />
                                                </xs:complexType>
                                            </xs:element>
                                        </xs:sequence>
                                        <xs:attribute name="server" use="required" />
                                        <xs:attribute name="database" />
                                        <xs:attribute name="clientName" use="required" />
                                        <xs:attribute name="key" use="required" />
                                        <xs:attribute name="oppId" use="required" />
```

```
        <!-- note: DTD says required, but may get invalidation for joined, not-started test -->
                                        <xs:attribute name="startDate" type="NullableDateTime" />
                                        <xs:attribute name="status" use="required">
                                                <xs:simpleType>
                                                        <xs:restriction base="xs:token">
                                                                <xs:enumeration value="appeal" />
                                                                <xs:enumeration value="completed" />
                                                                <xs:enumeration value="expired" />
                                                                <xs:enumeration value="handscoring" />
                                                                <xs:enumeration value="invalidated" />
                                                                <xs:enumeration value="paused" />
                                                                <xs:enumeration value="reported" />
                                                                <xs:enumeration value="reset" />
                                                                <xs:enumeration value="scored" />
                                                                <xs:enumeration value="submitted" />
             <xs:enumeration value="pending" />
                                                        </xs:restriction>
                                                </xs:simpleType>
                                        </xs:attribute>
                                        <xs:attribute name="opportunity" use="required" type="xs:unsignedInt" />
                                        <xs:attribute name="statusDate" use="required" type="xs:dateTime" />
                                        <xs:attribute name="dateCompleted" type="NullableDateTime" />
                                        <xs:attribute name="pauseCount" use="required" type="xs:unsignedInt" />
                                        <xs:attribute name="itemCount" use="required" type="xs:unsignedInt" />
                                        <xs:attribute name="ftCount" use="required" type="xs:unsignedInt" />
                                        <xs:attribute name="abnormalStarts" use="required" type="xs:unsignedInt" />
                                        <xs:attribute name="gracePeriodRestarts" use="required" type="xs:unsignedInt" />
                                        <xs:attribute name="taId" />
                                        <xs:attribute name="taName" />
                                        <xs:attribute name="sessionId" />
                                        <xs:attribute name="windowId" use="required" />
                                        <xs:attribute name="windowOpportunity" type="NullableUInt" />
                                        <xs:attribute name="dateForceCompleted" type="NullableDateTime" />
                                        <xs:attribute name="qaLevel" />
      <!-- new field requested for open source -->
      <xs:attribute name="assessmentParticipantSessionPlatformUserAgent" use="required" />
      <!-- the first date of the first window for a given assessment.  Format = YYYY-MM-DD -->
      <xs:attribute name="effectiveDate" use="required" />
    </xs:complexType>
                        </xs:element>
                        <xs:element name="Comment" minOccurs="0" maxOccurs="unbounded">
                                <xs:complexType mixed="true">
      <!-- TODO: domain values; I've seen GlobalNotes and TESTITEM, but I'm not sure how rigid this is. -->
                                        <xs:attribute name="context" use="required" />
                                        <xs:attribute name="itemPosition" type="NullableUInt" />
                                        <xs:attribute name="date" use="required" type="xs:dateTime" />
```

```
                                        </xs:complexType>
                                </xs:element>
                                <xs:element name="ToolUsage" minOccurs="0" maxOccurs="unbounded">
                                        <xs:complexType>
                                                <xs:sequence>
                                                        <xs:element name="ToolPage" minOccurs="1" maxOccurs="unbounded">
                                                                <xs:complexType>
                                                                        <xs:attribute name="page" use="required" type="xs:unsignedInt" />
                                                                        <xs:attribute name="groupId" use="required" />
                                                                        <xs:attribute name="count" use="required" type="xs:unsignedInt" />
                                                                </xs:complexType>
                                                        </xs:element>
                                                </xs:sequence>
                                                <xs:attribute name="type" use="required" />
                                                <xs:attribute name="code" use="required" />
                                        </xs:complexType>
                                </xs:element>
                        </xs:sequence>
                </xs:complexType>
        </xs:element>
<!-- recursive node requires global type so that it can be named -->
        <xs:complexType name="ScoreInfoType">
                <xs:sequence>
    <xs:element name="ScoreRationale" minOccurs="0" maxOccurs="1" />
                        <xs:element name="SubScoreList" minOccurs="0" maxOccurs="1">
                                <xs:complexType>
                                        <xs:sequence>
                                                <xs:element minOccurs="0" maxOccurs="unbounded" name="ScoreInfo" type="ScoreInfoType" />
                                        </xs:sequence>
                                </xs:complexType>
                        </xs:element>
                </xs:sequence>
  <!-- same constaints as item/@score -->
                <xs:attribute name="scorePoint" type="UFloatAllowNegativeOne" />
  <!-- top level will always be "overall" (if not null); this represents the item score.  Nested ScoreInfo nodes will have dimention level scores
  if applicable, so this will be the dimension name. -->
                <xs:attribute name="scoreDimension" />
  <xs:attribute name="scoreStatus">
    <xs:simpleType>
      <xs:restriction base="xs:token">
        <xs:enumeration value="Scored" />
        <xs:enumeration value="NotScored" />
        <xs:enumeration value="WaitingForMachineScore" />
        <xs:enumeration value="ScoringError" />
      </xs:restriction>
    </xs:simpleType>
```

```
  </xs:attribute>
  <xs:attribute name="conditionCode">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:pattern value="(|[A-Z])"/>
        <xs:maxLength value="1" />
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
      </xs:complexType>
      <!-- some reusable types -->
      <xs:simpleType name="Bit">
              <xs:restriction base="xs:unsignedByte">
                      <xs:minInclusive value="0" />
                      <xs:maxInclusive value="1" />
              </xs:restriction>
      </xs:simpleType>
      <xs:simpleType name="Empty">
              <xs:restriction base="xs:string">
                      <xs:enumeration value="" />
              </xs:restriction>
      </xs:simpleType>
<xs:simpleType name="NegativeOne">
  <xs:restriction base="xs:string">
    <xs:enumeration value="-1" />
  </xs:restriction>
</xs:simpleType>
      <xs:simpleType name="NullableDateTime">
              <xs:union memberTypes="xs:dateTime Empty  ">
              </xs:union>
      </xs:simpleType>
<xs:simpleType name="NullableUInt">
  <xs:union memberTypes="xs:unsignedInt Empty  ">
  </xs:union>
</xs:simpleType>
<xs:simpleType name="NullableFloat">
  <xs:union memberTypes="xs:float Empty  ">
  </xs:union>
</xs:simpleType>
      <xs:simpleType name="Context">
              <xs:restriction base="xs:token">
                      <xs:enumeration value="INITIAL" />
                      <xs:enumeration value="FINAL" />
              </xs:restriction>
      </xs:simpleType>
<xs:simpleType name="UFloat">
```

```
    <xs:restriction base="xs:float">
      <xs:minInclusive value="0" />
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="UFloatAllowNegativeOne">
    <xs:union memberTypes="UFloat NegativeOne  ">
    </xs:union>
  </xs:simpleType>
</xs:schema>
```

Sample XML Output

Based on the XSD, the following section contains a sample XML output that can aid in the understanding of the implementation.

```
<TDSReport>
  <Test name="(SBAC)SBAC-FT-SomeDescription-MATH-7-Fall-2013-2014" subject="MA" testId="SBAC-FT-SomeDescription-MATH-7" bankKey="200" contract="SBAC"
mode="online" grade="3-12" assessmentType="Formative" academicYear="2014" assessmentVersion="SomeNewVersion" />
  <Examinee key="922171">
    <ExamineeAttribute context="FINAL" name="DOB" value="07242001" contextDate="2014-04-14T11:13:41.803" />
    <ExamineeAttribute context="FINAL" name="Ethnicity" value="4" contextDate="2014-04-14T11:13:41.803" />
    <ExamineeAttribute context="FINAL" name="FirstName" value="John" contextDate="2014-04-14T11:13:41.803" />
    <ExamineeAttribute context="FINAL" name="Gender" value="M" contextDate="2014-04-14T11:13:41.803" />
    <ExamineeAttribute context="FINAL" name="Grade" value="07" contextDate="2014-04-14T11:13:41.803" />
    <ExamineeAttribute context="FINAL" name="LastName" value="Smith" contextDate="2014-04-14T11:13:41.803" />
    <ExamineeAttribute context="FINAL" name="SSID" value="CA-9999999598" contextDate="2014-04-14T11:13:41.803" />
    <ExamineeAttribute context="INITIAL" name="DOB" value="" contextDate="2014-04-14T10:48:43.433" />
    <ExamineeAttribute context="INITIAL" name="Ethnicity" value="4" contextDate="2014-04-14T10:48:43.433" />
    <ExamineeAttribute context="INITIAL" name="FirstName" value="John" contextDate="2014-04-14T10:48:43.433" />
    <ExamineeAttribute context="INITIAL" name="Gender" value="M" contextDate="2014-04-14T10:48:43.433" />
    <ExamineeAttribute context="INITIAL" name="Grade" value="07" contextDate="2014-04-14T10:48:43.433" />
    <ExamineeAttribute context="INITIAL" name="LastName" value="Smith" contextDate="2014-04-14T10:48:43.433" />
    <ExamineeAttribute context="INITIAL" name="SSID" value="CA-9999999598" contextDate="2014-04-14T10:48:43.433" />
    <ExamineeRelationship context="FINAL" name="DistrictID" entityKey="709" value="CA_9999827" contextDate="2014-04-14T11:13:41.810" />
    <ExamineeRelationship context="FINAL" name="DistrictName" entityKey="709" value="This Elementary School District" contextDate="2014-04-14T11:13:41.810"
/>
    <ExamineeRelationship context="FINAL" name="SchoolID" entityKey="9426" value="CA_9999827_9999928" contextDate="2014-04-14T11:13:41.810" />
    <ExamineeRelationship context="FINAL" name="SchoolName" entityKey="9426" value="My Elementary School" contextDate="2014-04-14T11:13:41.810" />
    <ExamineeRelationship context="FINAL" name="StateName" entityKey="3" value="California" contextDate="2014-04-14T11:13:41.810" />
    <ExamineeRelationship context="INITIAL" name="DistrictID" entityKey="709" value="CA_9999827" contextDate="2014-04-14T10:48:43.433" />
    <ExamineeRelationship context="INITIAL" name="DistrictName" entityKey="709" value="This Elementary School District" contextDate="2014-04-
14T10:48:43.433" />
    <ExamineeRelationship context="INITIAL" name="SchoolID" entityKey="9426" value="CA_999927_9999928" contextDate="2014-04-14T10:48:43.433" />
    <ExamineeRelationship context="INITIAL" name="SchoolName" entityKey="9426" value="My Elementary School" contextDate="2014-04-14T10:48:43.433" />
    <ExamineeRelationship context="INITIAL" name="StateName" entityKey="3" value="California" contextDate="2014-04-14T10:48:43.433" />
    <ExamineeRelationship context="INITIAL" name="StudentGroupName" value="Brennan Math" contextDate="2014-09-14T10:48:43.433" />
    <ExamineeRelationship context="INITIAL" name="StudentGroupName" value="Tuesday Science" contextDate="2014-09-14T10:48:43.433" />
    <ExamineeRelationship context="INITIAL" name="StudentGroupName" value="Smith Research" contextDate="2014-09-14T10:48:43.433" />
  </Examinee>
  <Opportunity server="562299-SBASQL8" database="CASBAC_SHARD_2013sp" clientName="California" key="71A3EE01-F215-4CCD-B74D-DF1097A01A0C" oppId="1855629"
startDate="2014-04-14T10:49:08.437" status="completed" opportunity="1" statusDate="2014-04-14T11:13:40.900" dateCompleted="2014-04-14T11:13:40.900"
pauseCount="0" itemCount="6" ftCount="6" abnormalStarts="0" gracePeriodRestarts="0" taId="NA" taName="Ringnell, Brandi" sessionId="BLUE-5752-4"
windowId="California" windowOpportunity="1" assessmentParticipantSessionPlatformUserAgent="Mozilla/5.0 (iPad; U; CPU OS 3_2_1 like Mac OS X; en-us)
AppleWebKit/531.21.10 (KHTML, like Gecko) Mobile/7B405" effectiveDate="2014-04-02">
    <Segment id="(SBAC)SBAC-FT-SomeDescriptionS1-MATH-7-Fall-2013-2014" position="1" formKey="200-10545" formId="SBAC-FT-Perf-7-Math-SomeDesc-2"
algorithm="fixedform" algorithmVersion="0" />
    <Segment id="(SBAC)SBAC-FT-SomeDescriptionS2-MATH-7-Fall-2013-2014" position="2" formKey="200-10894" formId="SBAC::FT::Perf::7::Math::SomeDesc::999::2"
```

```
algorithm="fixedform" algorithmVersion="0" />
    <Accommodation type="AmericanSignLanguage" value="4" code="ENU" segment="0"/>
    <Accommodation type="AmericanSignLanguageInterpreter" value="0" code="ENU" segment="0" />
    <Accommodation type="Braile" value="8" code="ENU" segment="0"/>
    <Accommodation type="ClosedCaptioning" value="0" code="ENU" segment="0"/>
    <Accommodation type="TTS" value="0" code="ENU" segment="0"/>
    <Accommodation type="Abacus" value="0" code="ENU" segment="0"/>
    <Accommodation type="AlternateResponseOptions" value="0" code="ENU" segment="0"/>
    <Accommodation type="Calculator" value="0" code="ENU" segment="0" />
    <Accommodation type="MultiplicationTable" value="0" code="ENU" segment="0"/>
    <Accommodation type="PrintOnRequest" value="0" code="ENU" segment="0"/>
    <Accommodation type="ReadAloud" value="0" code="ENU" segment="0"/>
    <Accommodation type="Scribe" value="0" code="ENU" segment="0"/>
    <Accommodation type="SpeechToText" value="0" code="ENU" segment="0"/>
    <Score measureOf="Overall" measureLabel="ScaleScore" value="245.174914080214" standardError="19.3617008392283" />
    <Score measureOf="Overall" measureLabel="PerformanceLevel" value="2" />
    <Score measureOf="Reading" measureLabel="ScaleScore" value="352.897" standarderror="619.751" />
    <Score measureOf="Reading" measureLabel="PerformanceLevel" value="2" />
    <Score measureOf="Writing" measureLabel="ScaleScore" value="185.002" standarderror="78.321" />
    <Score measureOf="Writing" measureLabel="PerformanceLevel" value="1" />
    <Score measureOf="Listening" measureLabel="ScaleScore" value="403.416" standarderror="204.982" />
    <Score measureOf="Listening" measureLabel="PerformanceLevel" value="2" />
    <Score measureOf="Research" measureLabel="ScaleScore" value="403.416" standarderror="204.982" />
    <Score measureOf="Research" measureLabel="PerformanceLevel" value="2" />
    <Score measureOf="Print on Demand" measureLabel="Accommodation" value="6" />
    <Score measureOf="Calculator" measureLabel="Accommodation" value="6" />
    <Item position="2" segmentId="(SBAC)SBAC-FT-SomeDescriptionS1-MATH-7-Fall-2013-2014" bankKey="200" key="15566" operational="0" isSelected="1"
format="MC" score="0" scoreStatus="SCORED" adminDate="2014-04-14T10:49:10.327" numberVisits="1" mimeType="text/plain" strand="3" contentLevel="3|EE|NA|E"
pageNumber="1" pageVisits="1" pageTime="69834" dropped="0">
      <Response date="2014-04-14T10:56:01.077">D</Response>
    </Item>
    <Item position="1" segmentId="(SBAC)SBAC-FT-SomeDescriptionS1-MATH-7-Fall-2013-2014" bankKey="200" key="15558" operational="0" isSelected="1"
format="EQ" score="0" scoreStatus="SCORED" adminDate="2014-04-14T10:49:10.327" numberVisits="1" mimeType="text/plain" strand="2" contentLevel="2|G|NA|C"
pageNumber="1" pageVisits="1" pageTime="69834" dropped="0">
      <Response date="2014-04-14T11:09:27.457">
        &lt;response&gt;&lt;math xmlns="http://www.w3.org/1998/Math/MathML"&gt;
        &lt;mstyle displaystyle="true"&gt;
        &lt;mn&gt;4&lt;/mn&gt;
        &lt;mn&gt;4&lt;/mn&gt;
        &lt;mn&gt;1&lt;/mn&gt;
        &lt;mn&gt;0&lt;/mn&gt;
        &lt;/mstyle&gt;
        &lt;/math&gt;&lt;/response&gt;
      </Response>
    </Item>
    <Item position="5" segmentId="(SBAC)SBAC-FT-SomeDescriptionS1-MATH-7-Fall-2013-2014" bankKey="200" key="15560" operational="0" isSelected="1"
```

```
format="EQ" score="-1" scoreStatus="NOTSCORED" adminDate="2014-04-14T10:49:10.327" numberVisits="1" mimeType="text/plain" strand="2"
contentLevel="2|EE|NA|A" pageNumber="1" pageVisits="1" pageTime="69834" dropped="0">
      <Response date="2014-04-14T11:09:27.423">
        &lt;response&gt;&lt;math xmlns="http://www.w3.org/1998/Math/MathML"&gt;
        &lt;mstyle displaystyle="true"&gt;
        &lt;mn&gt;2&lt;/mn&gt;
        &lt;/mstyle&gt;
        &lt;/math&gt;&lt;/response&gt;
      </Response>
    </Item>
    <Item position="4" segmentId="(SBAC)SBAC-FT-SomeDescriptionS1-MATH-7-Fall-2013-2014" bankKey="200" key="15562" operational="0" isSelected="1"
format="EQ" score="-1" scoreStatus="NOTSCORED" adminDate="2014-04-14T10:49:10.327" numberVisits="1" mimeType="text/plain" strand="4"
contentLevel="4|EE|NA|E" pageNumber="1" pageVisits="1" pageTime="69834" dropped="0">
      <Response date="2014-04-14T11:13:25.493" >
        &lt;response&gt;&lt;math xmlns="http://www.w3.org/1998/Math/MathML"&gt;
        &lt;mstyle displaystyle="true"&gt;
        &lt;mfrac&gt;
        &lt;mi&gt;x&lt;/mi&gt;
        &lt;mi&gt;y&lt;/mi&gt;
        &lt;/mfrac&gt;
        &lt;mo&gt;&amp;#x2217;&lt;/mo&gt;
        &lt;mfrac&gt;
        &lt;mi&gt;x&lt;/mi&gt;
        &lt;mrow&gt;
        &lt;mn&gt;1&lt;/mn&gt;
        &lt;mn&gt;0&lt;/mn&gt;
        &lt;mn&gt;0&lt;/mn&gt;
        &lt;/mrow&gt;
        &lt;/mfrac&gt;
        &lt;mo&gt;=&lt;/mo&gt;
        &lt;mo&gt;&amp;#x2212;&lt;/mo&gt;
        &lt;mo&gt;&amp;#x2212;&lt;/mo&gt;
        &lt;mo&gt;&amp;#xF7;&lt;/mo&gt;
        &lt;mo&gt;=&lt;/mo&gt;
        &lt;/mstyle&gt;
        &lt;/math&gt;&lt;/response&gt;
      </Response>
    </Item>
    <Item position="3" segmentId="(SBAC)SBAC-FT-SomeDescriptionS1-MATH-7-Fall-2013-2014" bankKey="200" key="15570" operational="0" isSelected="1"
format="SA" score="-1" scoreStatus="NOTSCORED" adminDate="2014-04-14T10:49:10.327" numberVisits="1" mimeType="text/html" strand="3" contentLevel="3|RP|NA|B"
pageNumber="1" pageVisits="1" pageTime="69834" dropped="0">
      <Response date="2014-04-14T11:03:10.913">
        &lt;p&gt;2 miles away from the beginning&lt;/p&gt;
      </Response>
    </Item>
    <Item position="6" segmentId="(SBAC)SBAC-FT-SomeDescriptionS1-MATH-7-Fall-2013-2014" bankKey="200" key="15573" operational="0" isSelected="1"
```

format="GI" score="-1" scoreStatus="NOTSCORED" adminDate="2014-04-14T10:49:10.327" numberVisits="1" mimeType="text/xml" strand="4" contentLevel="4|EE|NA|E" pageNumber="1" pageVisits="1" pageTime="69834" dropped="0">
<Response date="2014-04-14T11:13:25.480">
<?xml version="1.0" encoding="utf-16"?>
<!-- MACHINE GENERATED 4/14/14 8:18 AM. DO NOT EDIT -->
<!DOCTYPE AnswerSet [
<!ELEMENT AnswerSet (Question+)>
<!ELEMENT AtomicObject (#PCDATA)>
<!ELEMENT EdgeVector (#PCDATA)>
<!ELEMENT GridImageTestPoints (TestPoint*)>
<!ELEMENT LabelList (#PCDATA)>
<!ELEMENT Object (PointVector,EdgeVector,LabelList,ValueList)>
<!ELEMENT ObjectSet (Object,AtomicObject+)>
<!ELEMENT PointVector (#PCDATA)>
<!ELEMENT Question (QuestionPart)>
<!ATTLIST Question id NMTOKEN #REQUIRED>
<!ELEMENT QuestionPart (LabelList,GridImageTestPoints,ObjectSet)>
<!ATTLIST QuestionPart id NMTOKEN #REQUIRED>
<!ELEMENT TestPoint (#PCDATA)>
<!ELEMENT ValueList (#PCDATA)>
]>
<AnswerSet><Question id=""><QuestionPart
id="1"><ObjectSet><Object><PointVector>{(390,290)(390,200)(180,290)(300,110)(180,200)(210,110)}</PointVector><EdgeVector>{
{(390,290),(390,200)} {(390,290),(180,290)} {(390,200),(300,110)} {(180,290),(180,200)} {(180,200),(210,110)}}</EdgeVector><LabelList> {}
</LabelList><ValueList> {}
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<p>   For historical reasons, the word "algebra" has several related meanings in
mathematics, as a single word or with qualifiers. Such a situation, where a single word has many meanings in the same area of mathematics, may be confusing.
However the distinction is easier if one recalls that the name of a scientific area is usually singular and without an article and the name of a specific
structure requires an article or the plural.</p>

<p> </p>

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