NAPLAN Online – Jurisdictional Results and Reporting Data Set Technical Specs

File specification for extraction of results and reporting data from the National Assessment Platform

(Based on the version 2.061 of the Results & Reporting data)

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Author:	NSIP team

Contents

Version Control

Results and Reporting Data Set Specification Document Version Control			
Version	**Date:**	**Author/Organization:**	**Comments**
V0.1	31/8/2016	Linda Marshall and Anthony Yaremenko /NSIP	Initial Draft
V0.2	2/9/2016	NSIP	Edits following ESA/Janison review
V0.3	7/9/2016	Nick Nicholas, NSIP LM AY NSIP	Updates to data transport, referenced dataset Updates to referenced dataset, XML and data exchange infrastructure post meeting with Janison.
V0.4	22/9/2016 27/9/2016	NSIP Team	Updates for XML based on interactions and feedback from Janison as well as the intention to support the transfer of the Codeframe. Updates of XML after XSD creation and validation
V0.5	29/9/2016	NSIP Team	XML structure NAPTestItem and NAPTestlet updated after feedback
V0.6	27/10/2016	NSIP	Updated student scope statements for inclusion in dataset Updated method of data extract Updated sample XML provided Updated embedded dataset to v2.02 Adjusted advice on timing of data extracts
V0.7	15/12/2016	NSIP Team	Updated embedded dataset to v2.051 Reviewed advice and methods on data extracts
V0.8	09/02/2016	NSIP Team – LM	Updated embedded dataset to v2.053 Link to Sample XML provided instead of the actual data. Other minor edits
V0.9	20/2/2017 21/2/2107	NSIP Team	Updated Diagram from NSIP Team. ESA updates to timing of extracts. Updated embedded DataSet spreadsheet to 2.054 Added: Representation of events, tests and domains
V0.91	14/3/2017	NSIP Team	Refined Representation of events, tests and domains
V0.92	10/4/2017	NSIP Team	Added Dataset scope (refer section 2.1) Added Cardinality - Student Participation Status Table and data impacts (refer section 2.3)
V0.93	24/05/2017	NSIP Team	Clarified “0” vs NULL in student test participation status table (pg 11) Updated html link for sample file (pg 14) Updated reference to R&R dataset s/sheet (now at 2.057 following update to parallel test to be optional rather than mandatory to support Writing test)
V0.94	6/6/2017	NSIP Team	Clarified expectations around Codeframe object for Writing, number of instances of each object in results set and representation of Item types. Expanded detail regarding NAPStudentResponseSet Added Appendix B covering Item types Added additional detail regarding behaviour of ISR extract in Participation Code table Expanded detail regarding Composite Items (CO) to include multiple combinations (CO – Other). Updated “Refused” score details (raw score 0, scaled score may be negative)

			Updated reference to dataset (v2061) – spreadsheet now includes comments regarding Calibration and equating sample flags (not included in R&R dataset).
V0.95	16/11/17	NSIP Team	Added detail regarding multiple writing prompt support

1. Introduction

1.1 Purpose

This document is designed for use by consumers of reporting data out of the delivery of NAPLAN Online. They include Test Administration Authorities in each jurisdiction and school system authorities.

These guidelines are based on the approved NAPLAN Results and Reporting Data Set. This document also references the approved NAPLAN Online Registration Data Set, and addresses:

- Elements available for exporting from the National Assessment Platform relating to the Student, the Registration of the Student into the platform, the Student's NAPLAN test session and results, as well as school, jurisdiction and national summary statistics
- Elements used to support the production of various reports including the SSSR and ISR (but not the reports themselves)
- All elements available to authorised jurisdictional/TAA users as a result of NAPLAN assessment online for a given testing event.

1.2 Terminology

Table 1.1: Terminology

Term	Definition
ACARA	Australian Curriculum and Assessment Authority
ESA	Education Services Australia (tasked with developing the assessment platform)
HITS	Hub Integration Testing Service – A SIF testing service provided by NSIP available here: http://hits.nsip.edu.au/dashboard/
ISR	Individual Student Report (rocket-ship report)
NIAS	NSIP Integration As a Service
NSIP	National Schools Interoperability Program
OAWG	On line Assessment Working Group
PNP	Personal Needs and Preferences
SIF	Systems Interoperability Framework
SRM	Student Registration Management System
SSA	School Sector Authority (examples include the Department of Education Victoria, the Department of Education NSW)
SSSR	School Student Summary Report
TAA	Test Administration Authority (examples include the VCAA, NESA, QCAA)
XML	eXtensible Markup Language
XSD	XML Schema Definition

1.3 Additional files

This document is complemented by a number of files to assist with integration development.

Files include:

Filename	Description
Online NAPLAN Reporting DataSet 2.061.xlsx	Reference excel spreadsheet, adapted from previous versions of the Results & Reporting dataset.
Sample data and schema file for NAPLAN Online Results and Reporting data	Link for Sample XML can be found in section 5.1

1.4 Document distribution

This document will be made available via NSIP's Github page: *https://github.com/nsip/naplan-results-reporting*

1.5 Background – Assessment platform

The Australian Government Department of Education is funding Education Services Australia (ESA) to develop the Online National Assessment Platform ('the Assessment Platform') that supports a range of assessment types including national online assessment. This platform will allow for test creation and management using an existing item authoring system, user management and student registration, test administration, delivery, access and presentation of tests to eligible students, as well as scoring of these assessments and reporting for assessment events. Offline and low-bandwidth delivery solutions are also included as part of the overall assessment delivery system (the outputs are assumed to be the same as online so are within the scope of this document).

1.6 Operations and Timing of data extracts

The timing of jurisdictional results and reporting extracts is dependent on the timetable published by ACARA. For 2018:

For Test Administration Authorities in a given State/Territory:

Authorised jurisdictional users are able to extract data from the platform once all schools have moved into the 'Results' phase and ACARA has uploaded the information required for reporting. As jurisdiction extracts can take up many hours to generate users should be prepared.

The sequence of events covering the retrieval of results and reporting data for a jurisdiction from the platform is outlined below.

1. TAA administrator accesses the Results & Reporting Dataset generation & retrieval page via the TAA dashboard in the Platform
2. Dataset will be accessible after all schools within the TAA's Jurisdiction have entered the "Results" phase and ACARA has uploaded data for reporting
3. TAA administrator generates the Results & Reporting Dataset for the sector within their scope.
4. The downloaded file will be a zip of the XML file that will require a password to open
5. Platform displays a message on screen confirming file generation and advising the password required to access the extract.
6. TAA administrator receives email notification upon completion of Results & Reporting Dataset generation
7. TAA administrator accesses the Results & Reporting Dataset page via the TAA dashboard and downloads the generated data extract, accepting a privacy agreement in the process

8. TAA administrator opens data extract, using the password initially provided upon generation
9. If TAA administrator wishes to re-download or re-generate the data extract at any point after this, they can do so by following the steps above. The most recently generated extract will always be available for download after its initial generation.
10. The TAA administrator is able to delete the data extract.

Impact of ACARA's processes on Results & Reporting Dataset:

It should be noted that as part of ACARA's data analysis, and the supply of school and/or jurisdictional means by TAAs to ACARA/ESA, values will be uploaded to the assessment platform which may alter the results and reporting data extract.

The RRD extract will have the following values populated or altered (may have been previously NULL or 0):

1. ***NAPStudentResponseSet Object***
   - ScaledScoreValue
   - ScaledScoreLogitValue
   - ScaledScoreStandardError
   - ScaledScoreLogitStandardError
   - StudentDomainBand
   - StudentProficiency
   - PlausibleScaledValueList

2. ***NAPTestScoreSummary Object***
   - DomainNationalAverage
   - DomainJurisdictionAverage
   - DomainTopNational60Percent
   - DomainBottomNational60Percent

1.7 Format of data extracts

The format of the data will be XML (eXtensible Markup Language). XML is able to model the complex, repeating nested data structures produced by the assessment platform, something which flat text files (such as CSV – comma separated value files), cannot readily accomplish. XML is both human and machine readable and will allow for validation of the file contents via XSD (XML Schema Definition). Student writing script responses will be in XML.

An open source tool produced by NSIP, NIAS (NSIP Integration As a Service), is available to assist with conversion of XML to CSV where required. Please contact NSIP via info@nsip.edu.au for further details on NIAS or see https://github.com/nsip/nias2/releases .

1.8 Method of data extracts

Jurisdictions will be able to request results and reporting data from the platform initially using a web based GUI (this will expand to include a REST based API in the future). Requests for results and reporting data will be able to be made for:

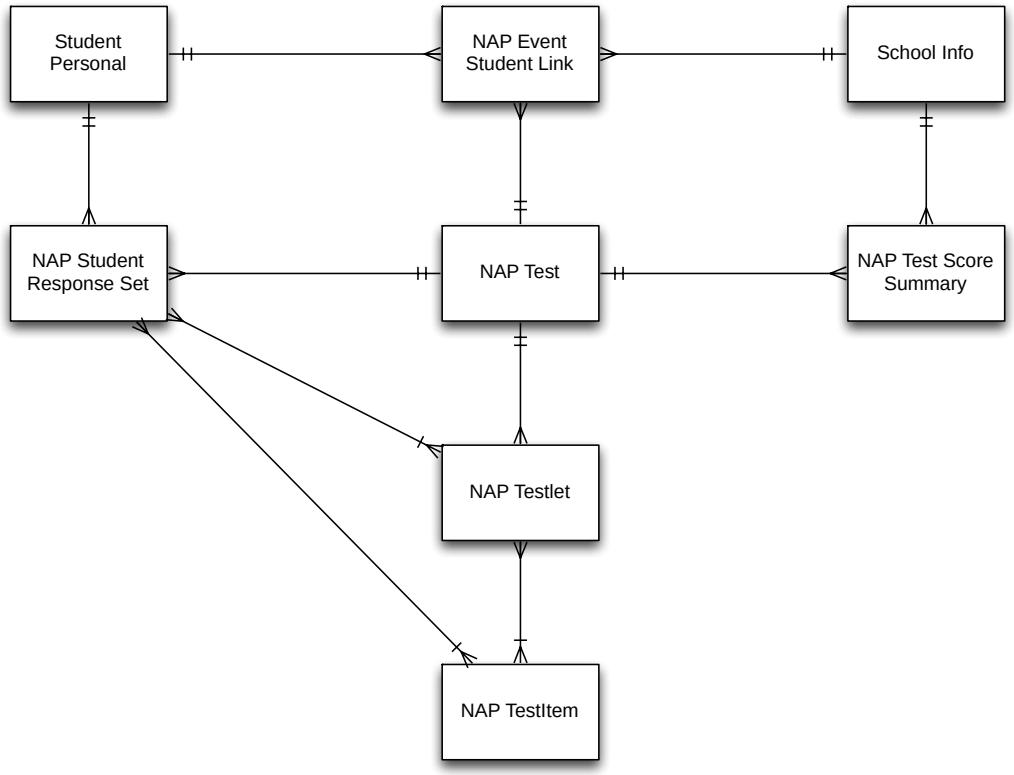
- All schools a jurisdiction is authorised to view (for example all Victorian schools). This is accomplished via multiple downloads (download of a zipped XML file per sector as per below).
- All schools for a particular sector (school system) within a jurisdiction

1.9 Updates to the Assessment Platform

Please note that current Assessment Platform functionality, with regards to Test, Training, Pre-production, Production (and/or any other environments) may not match the functionality described in this specification.

Functionality updates to the Assessment Platform are managed via ESA. Queries regarding current platform functionality and likely changes or release scheduling should be directed to ESA.

2. XML – SIF Objects representing the Results and Reporting Data Set



XML – SIF Objects representing the entities associated with NAPLAN Assessment

The data available for export via the Jurisdictional Results & Reporting data set is represented as follows:

1. Student Personal: Contains all of the student demographic data and identifiers related to the student. Given that schools can add/modify details of students on the assessment platform, the original input registration data will most certainly be different to the final student details recorded in the platform.

2. NAP Event Student Link: This object represents a student's registration for a NAPLAN assessment. It includes key student identifiers, school identifiers, details of the test sat (including test name, level, domain), participation and exemption details, adjustments and PNPs, device details and the date of the test.

3. NAP Test: This object represents an assessment assigned in the context of NAPLAN, targeted at a particular domain and year level.

4. NAP Testlet: This object represents a testlet assigned in the context of a NAPLAN test, consisting of a number of items, and subject to branching rules according to adaptive testing.

5. NAP Student Response Set: Captures the student's response to NAPLAN Test Items in the context of a NAPLAN test. Results are captured for each testlet, and each item within each testlet, that the student responds to. Data elements include Report exclusion flags, calibration and equating samples, domain scores, plausible scaled values for domain scores, student band, testlet details, item responses, script images where appropriate, and links to test items.

6. NAP Test Item: Contains the item identifier, domain, subdomain, descriptor, released status, item difficulty, proficiency band, curriculum content descriptions, stimuli and writing rubrics. The writing rubrics in turn consist of

scores, and score descriptions within each score. Where the item has not been published, the object refers to the URL of the item exemplar instead. Substitute test items point back to the original item(s) that they substitute for, along with an indication of the PNP codes applicable to the substitution.

7. School Info: This object represents each school associated with students who are registered for NAPLAN assessment and for which the system has recorded NAPLAN test scores. It may be required to relate a Student to a school or tenancy.

8. NAP Test Score Summary: For a given school this object details the aggregate scores for a NAPLAN test, including national, school, and jurisdictional averages for the same test.

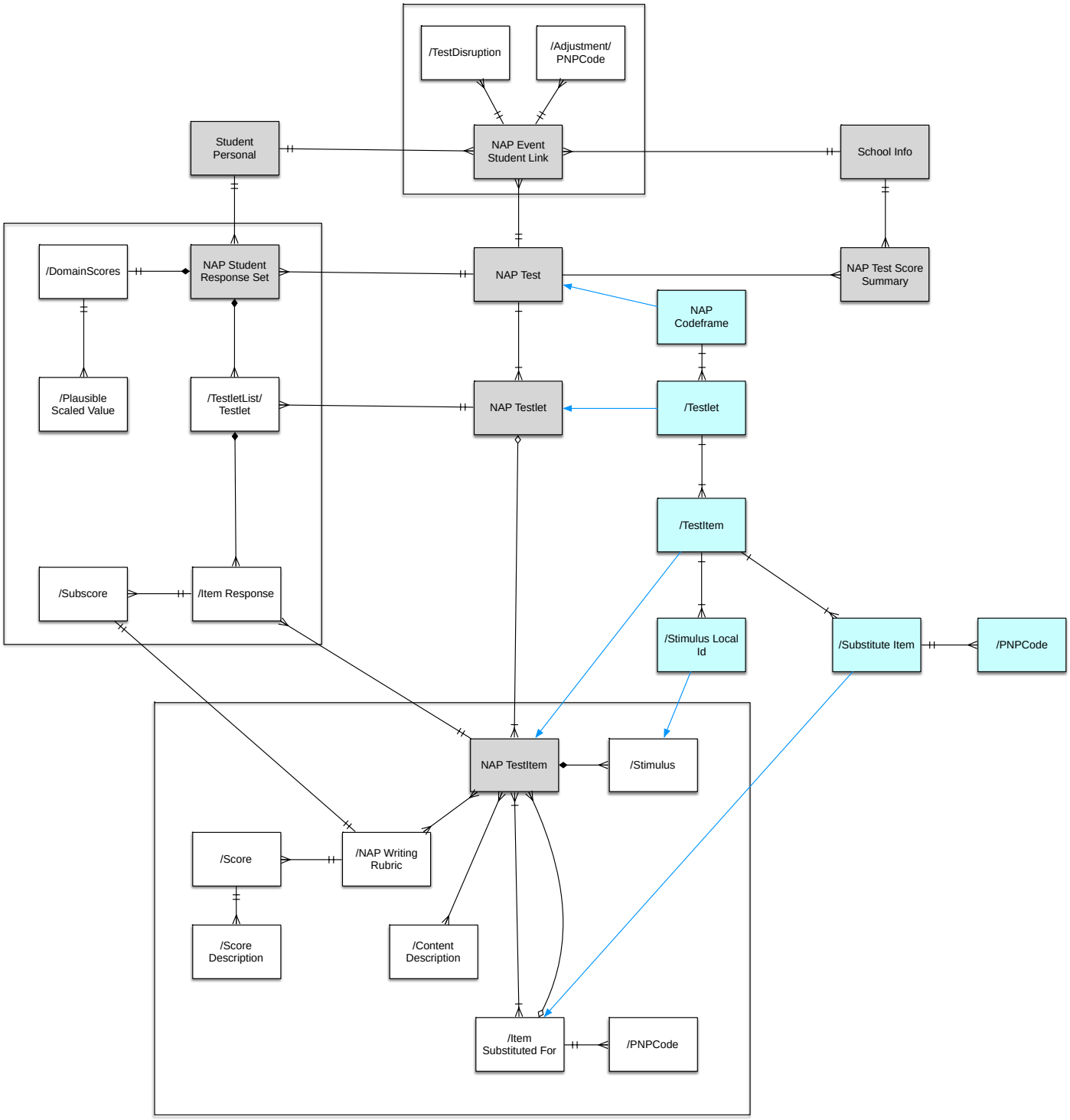
9. Test Structure - CodeFrame (derived from NAP Test Item): The full structure of a test domain within a test cycle, excluding Writing, is known as the NAPLAN codeframe, is included in the export to jurisdictions. ACARA typically provide codeframes for the following year's tests to jurisdictions once the tests have been finalised. This structure is conveyed through additional fields in the NAP Test Item object, describing the testlet(s) and test(s) they belong to. A separate CodeFrame object may also be provided, as a single container of the information in a NAP Test object and in all its associated NAP Testlet and NAP Test Item objects.

For writing, marking rubrics are provided outside the Platform by ACARA, but inform the structure of the writing data elements in the dataset. Both the stimuli and the individual student's response are included in the dataset. Note that Writing is not an adaptive or tailored assessment.

Note that the Student Response Set object indicates what the student responded to by pointing to separate Test, Testlet and TestItem objects, and not to the representation of those objects contained within the Codeframe object. For that reason, the Student Response Set is published alongside separate Test, Testlet and TestItem objects, even though their content may already be present in the Codeframe object.

The underlying conceptual Model is described below. The codeframe objects are given in blue.

The NAPWritingRubric objects are in a many:many relationship with NAPTestItem objects. In the implementation XML model, the Rubrics and Stimuli are contained within NAP Test Item.



ii) Underlying conceptual model for the entities associated with NAPLAN Assessment

2.1 Data scope

The dataset extract's scope is the 'Main test' and does not cover the 'Survey & Practice questions' which are not part of the 'Main test'.

2.2 Representation of events, tests, and domains

The representation of events and tests specified here is intended for consumption in the context of reporting. This representation may be at odds with the representation of the same for the purposes of test administration.

In particular, test administration of NAPLAN makes the following conflations:

<table>
<tr><th>Domain</th><th>Event</th><th>Test</th></tr>
<tr><td>Writing</td><td>Writing</td><td>Writing</td></tr>
<tr><td>Reading</td><td>Reading</td><td rowspan="3">Reading and Conventions of Language</td></tr>
<tr><td>Spelling</td><td rowspan="2">Conventions of Language</td></tr>
<tr><td>Grammar & Punctuation</td></tr>
<tr><td>Numeracy</td><td>Numeracy</td><td>Numeracy</td></tr>
</table>

That is, the domains of Spelling and Grammar & Punctuation are conflated in the single test of Conventions of Language; and the tests of Reading and Conventions of Language are administered within a single event (as the branching of Conventions of Language depends on the result of Reading).

For the purposes of reporting test results, however, these distinctions are irrelevant. All result objects are keyed to a single domain. The NAP Event Student Link and NAP Test objects are populated redundantly: one identical event is created for each of Reading, Spelling, and Grammar & Punctuation, and one identical test for each of Spelling and Grammar & Punctuation.

Following a change request in 2017 introducing multiple writing prompts to improve test prompt security, more than one writing test will be produced for 2018 for a given test level. For example, Year 5 Writing may actually be represented via two or more NAP Test objects, each representing a different writing test prompt. The multiple writing tests delivered to a year level will *not* be collapsed into a single test for the purposes of results and reporting. (Note: This only applies to Writing.)

The following tables details the expected frequency at which objects will appear in the NAPLAN Online Results and Reporting dataset:

Object	**Number of times included in a jurisdiction's dataset**
School Info	Once for each unique school campus as defined by the ACARA school ID (eg Greenvale P-12 S)
NAP Test	Once per NAP test domain & year level (eg Writing Y9, Reading Y9, Spelling Y9, Grammar & Punctuation Y9, Numeracy Y9, Writing Y5, Reading Y5…) **except** Year 3 Writing For a P-12 school campus with all year levels tested (3,5,7,9) omitting Year 3 Writing, this equates to (4 * 5)-1 = 19 instances (minimum). (note: impact of multiple Writing prompts resulting in multiple Writing NAPTest objects for a single year level)
NAP Test Score Summary	One per unique school campus per NAP Test Domain & year level (eg Greenvale – Writing Y9, Greenvale – Reading Y9, Greenvale – Spelling Y9,

	Greenvale – Grammar & PunctuationY9, Greenvale – Numeracy Y9, …, Greenvale – Writing Y5, …) **except** Year 3 Writing For a P-12 school campus with all year levels tested (3,5,7,9) except Year 3 Writing, this equates to (4 * 5)-1 = 19 instances minimum (note: impact of multiple Writing prompts resulting in multiple Writing NAPTest objects for a single year level, therefore multiple NAPTestScoreSummary objects also).
NAP Testlet	One to many for each NAP Test except Writing & year level as required
NAP Test Item	One to many for each NAP Testlet/Test combination as required
NAP Event Student Link	For each student, an instance for a given NAP Test domain. For example Billy Brown in Year 5 would be expected to have 5 instances (one for each of Writing, Reading, Spelling, Grammar and Punctuation, and Numeracy).
Student Personal	Once per student registration per school campus For example Billy Brown in Year 5 at Greenvale P-12 would be expected to appear once.
NAP Student Response Set	For each "NAP Event Student Link" object, a "NAP Student Response Set" object is expected, excluding scenarios where a student's participation code indicates that they did not sit the test (Absent, Cancelled, Exempt, Withdrawn, No Longer Enrolled). For example, Billy Brown in Year 5 at Greenvale P-12 would be expected to have five instances of the 'NAP Student Response Set' objects if his status was Present/Participating. Refer to Appendix B for further details on NAPStudentResponseSet.
NAP Codeframe	NAP Codeframe for each of the 4 NAP Test domains (excludes Writing). ie Across Y9, 7, 5, 3 = (4*4) = 16 NAP Codeframe instances. Reading, Spelling, Grammar and Punctuation, and Numeracy all have a code frame. The platform also produces a simple Writing NAPCodeframe (a single testlet with a single test item) for each Writing test (note impact of multiple writing prompts will results in multiple Writing NAP Codeframes per year level, each with a different NAPTest, testlet and item).

Note: The above assumes a student has enrolled at a single school and has been registered to a single school with a single PSI. Where this is not the case, and a student has duplicate enrolments and/or multiple registrations, the details regarding object instances represented in the above table may differ.

2.3 Cardinality of objects

Every student registered in the National Assessment Platform will have a NAP Event Student Link object generated for each NAPLAN test they are eligible for. The object is necessary to indicate the status of a student in that test, whether or not they sat the test (as indicated by their student test participation status).

If a student abandons a test and has a participation status of Sanctioned Abandonment, no score is calculated or reported. However, student responses are published for the student in the Results and Reporting extract. Please refer to the below table for student participation status impacts on the data for that test.

If the student has refused to sit the test (participation Code of R: Refusal), the raw score for the test will be zero (and the scaled score will be negative), and no responses will be recorded for the test. Please refer to the below table for student participation status impacts on the data for that test.

A student will only have any NAPLAN results to report for a test where they have sat part of or an entire test. The Platform will then generate associated NAP Student Response Set objects. The participation code in the NAP Event Student Link should be used by data consumers to indicate whether the NAP Student Response Set object can be used meaningfully or not.

All NAP tests have at least one testlet, and there is no direct linkage between tests and test items. If the test is non-branching (as is the case in Writing), the test must have a single testlet, which includes all the testlets in the test.

Participation Code	**Score present in R&R dataset? refer DomainScore / RawScore DomainScore / ScaledScoreValue**	**SSSR impacts**	**ISR impacts**	**Jurisdictional R&R extract**
P: Present	Yes	Displayed on report	Available	All objects
A: Absent	No (NULL)	Blank result	No dot for student score	No NAPStudent ResponseSet object
C: Cancelled	No (NULL)	Blank result	Not in extract if status against all student tests, in extract if affecting individual tests	No NAPStudent ResponseSet object. Note: Cancelled status can only be applied by ESA admin.
E: Exempt	No (NULL)	Blank result	No dot for student score	No NAPStudent ResponseSet object
W: Withdrawn	No (NULL)	Blank result	No dot for student score	No NAPStudent ResponseSet object
S: Sanctioned Abandonment	No (NULL)	Blank result	No dot for student score	All objects (noting that a student may have responded to 0, 1 or many items prior to the participation status being set)
R: Refused	Zero “0” (raw) score. May result in negative scaled score.	Raw score of zero	Score of zero	All objects (noting that the student response objects are able to be ignored, and that testlet and item responses may be excluded from the object)
X: No Longer Enrolled	No (NULL)	Student does not appear in the SSSR	Not in ISR extract (If ALL test attempts have this status). In ISR extract if at least one attempt has a status other than X – No longer enrolled	No NAPStudent ResponseSet object

Note: “Blank result” for the SSSR indicates that the student’s name will show on the report but with no result.

Also, please refer to Appendix B for further details on NAPStudentResponseSet and the impact of participation code.

3. Interface specifications

3.1 Export Results and Reporting Data for NAPLAN assessed students in a jurisdiction.

Business Functions Supported	Export complete set of NAPLAN Results & Reporting data for one, many or all schools in a jurisdiction.
Problem being solved	What is the record of the NAPLAN online assessment for all students across all year levels and all test domains for a given year?
Description	See Diagram *(i)* above of all the objects involved in the exchange of Results and Reporting Data. This describes the exporting of: • All of the relevant, Student and NAPLAN Results information and their relationships. The export is initiated manually by TAA administrator from the assessment platform and produces XML files
Process or Function Pre-conditions	1. Data about students registering for the NAPLAN Online assessment cycle has been imported into the Assessment Delivery System from the SRM 2. The students in scope are registered to participate in assessments delivered by the platform 3. ACARA has loaded the test information including item metadata and branching rules for the tailored assessments into the platform 4. TAA administrator generates a Results & Reporting Dataset within their scope.
Process or Function Post-conditions	1. The export will be available in XML: i) The XML file naming convention will NAPResultsReporting.xml ii) A file extension of .XML is required. iii) The XML will comply with the SIF AU (3.4.1) standard available here. iv) Students will be represented via the StudentPersonal object, and have any Participation Status from a linked NAPEventStudentLink Object; Results will be in the NAPStudentResponseSet object linked with the NAPTestItem object. The NAPTestScoreSummary, representing cohort comparison scores, is linked to the SchoolInfo object, which is linked to the NAPEventStudentLink. 2. Consumers of the results and reporting data will perform any necessary transformations on the data as required
Business rules	1. Refer section 1. 6 above – Operations and Timing

3. Data Validation

3.1 Test Data for Export

Test data for testing the bulk export of NAPLAN Online Jurisdictional Results and Reporting data can be accessed via the *NSIP Hits Testing Service* or via ESA.

4. Data Transport

The data format for exports of student results is SIF/XML. This will ensure that the complexity of results data can be captured properly, without devolving into a huge number of linked files for each result set, and that appropriate typing and validation can be built into data ingestion.

In the long term, it is highly desirable that the National Assessment Platform support the full SIF protocol, including SIF 3.x Infrastructure. A specification to develop a machine to machine API for the exchange of results data is being developed.

The extracts will initially be made available via a manual selection interface in the National Assessment Platform:

- The extract will deliver all the objects/entities via XML.
- All results objects will be wrapped within a single <NAPResultsReporting> wrapper tag.
- The results data may incorporate binary data, such as script images or exemplar items. Rather than include such data as blobs in the result data XML, it is preferable for the XML to reference such data as external files, through a URL or through a filename reference to a separately distributed file archive.
- NSIP is able to assist TAAs in consuming SIF formatted files into their existing systems, through its NIAS toolset (refer to section 5.2 below for resource links).

5. Results and Reporting Data Set – Specifications

Refer to *"Online NAPLAN Reporting DataSet 2.061.xlsx"* located here:

https://github.com/nsip/naplan-results-reporting

5.1 Student Results Export File/s– XML:

Up to date sample XML exists in GitHub and is available for download here:
https://github.com/nsip/naplan-results-reporting/blob/master/nap-samplefile.xml

5.2 Other resources:

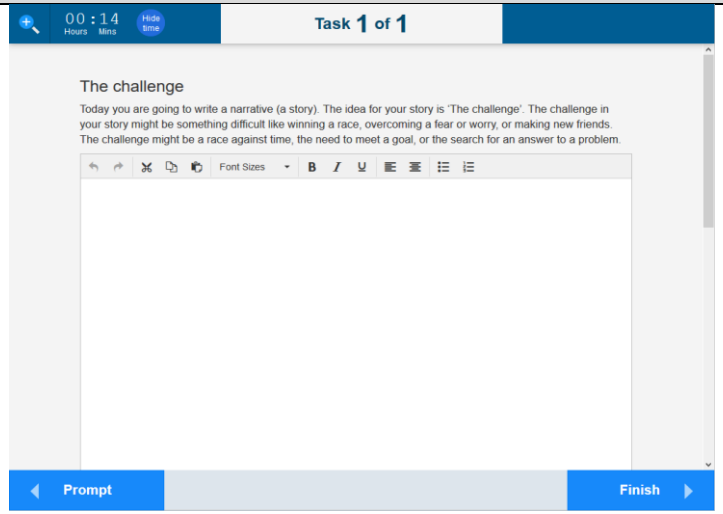
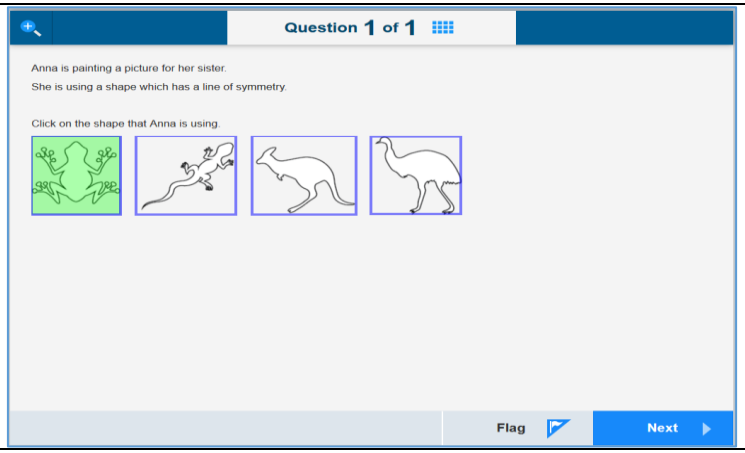
XSD file:

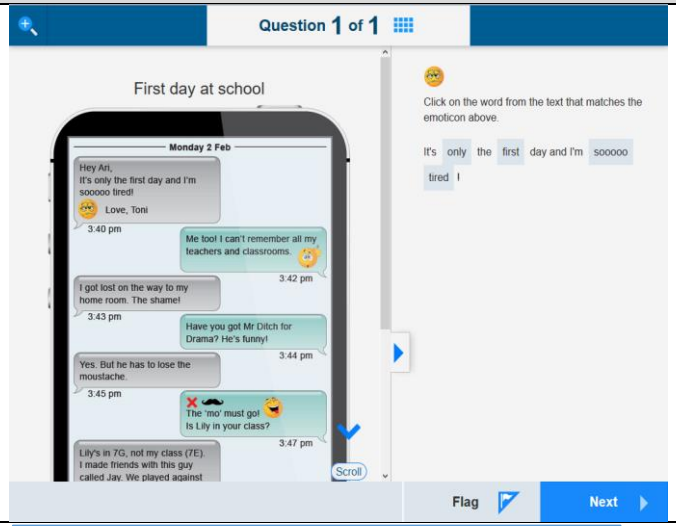
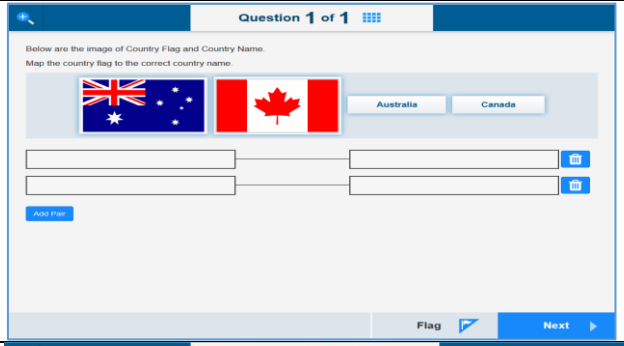
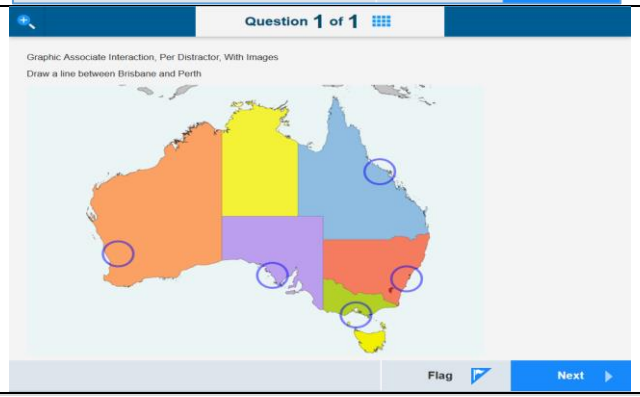
https://github.com/nsip/naplan-results-reporting/blob/master/SIF_MessageWithNAPWrapper.xsd

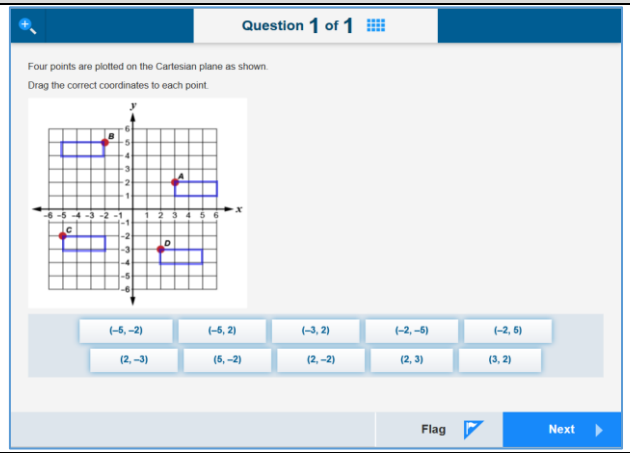
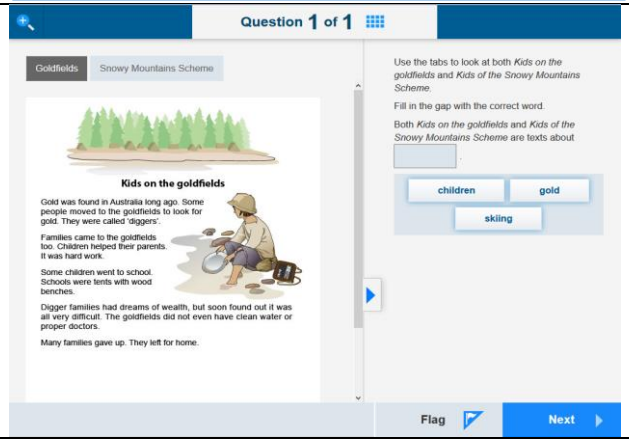
NSIP NIAS tool for Results and Reporting:

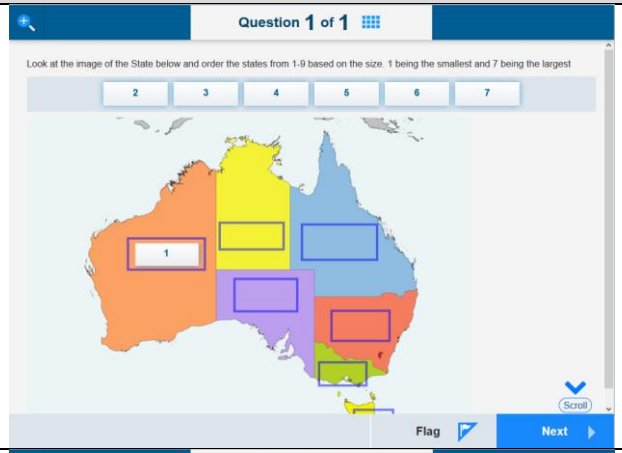
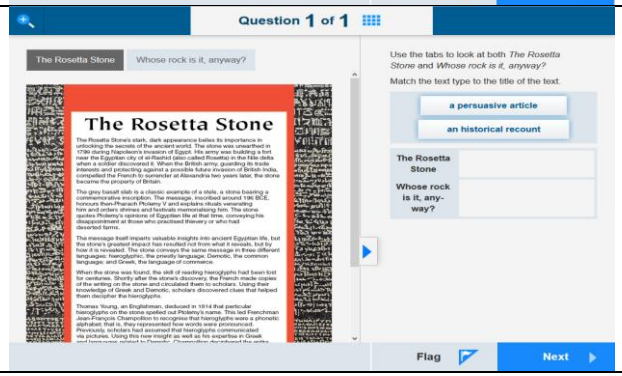
https://github.com/nsip/nias2

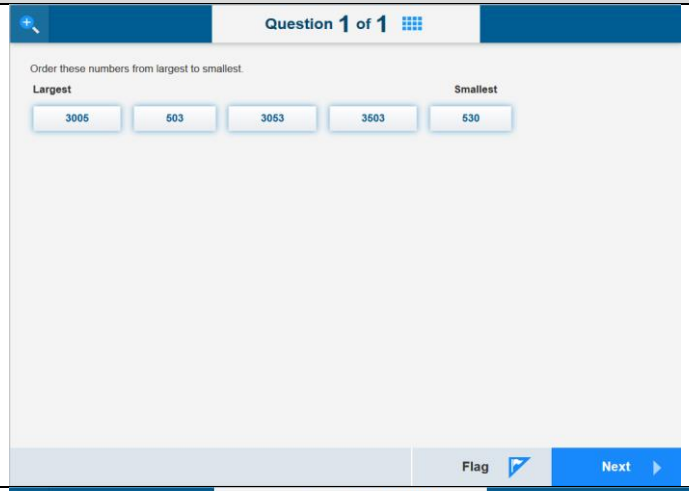
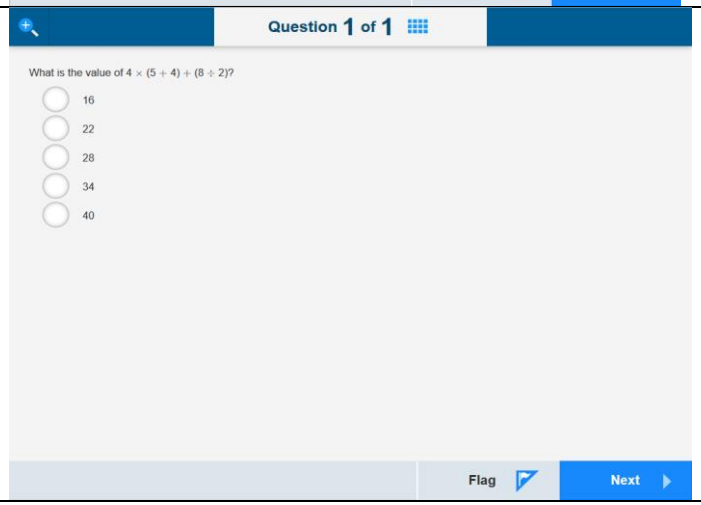
Appendix A: Test Item types and their representations in the R&R dataset

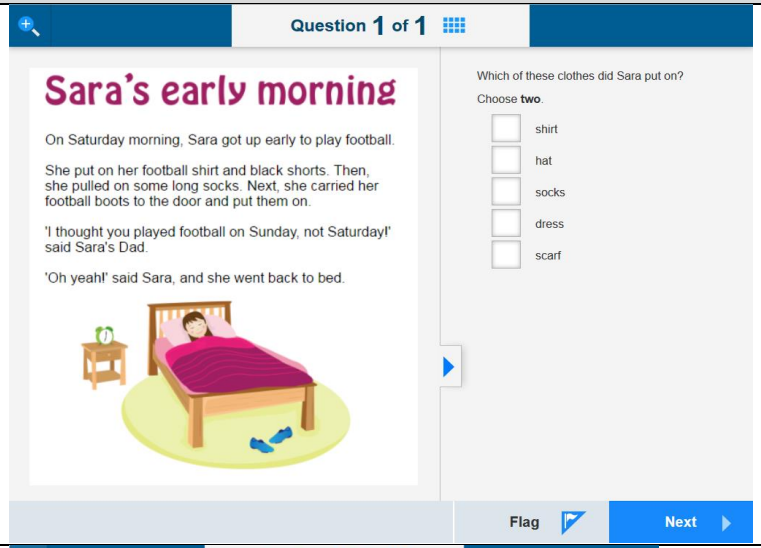
#	Item Type	Short name	Student Player view	Sample "Correct Answer" as appears in R&R dataset	Notes
1	Extended text	ET		 Writing Test Response RRD.txt  Writing Test Response with HTML	Extended text only used for Writing assessment. The provided "Writing Test Response RRD.txt" is how the contents will appear in the RRD XML file. The HTML version provided shows how this would appear when converted from XML to HTML.
2	Hot spot	HS		1000	

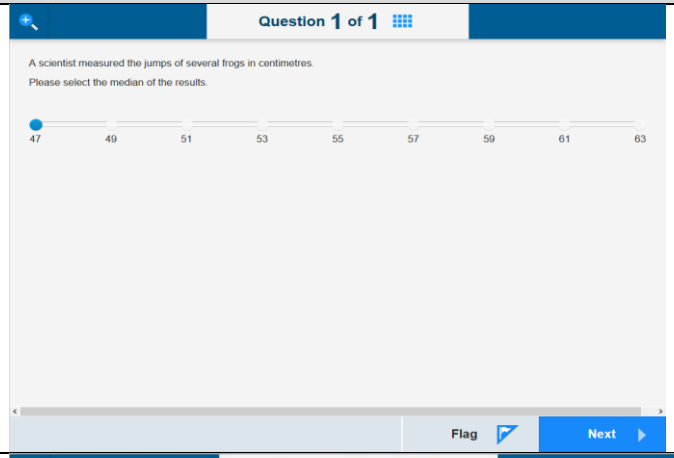
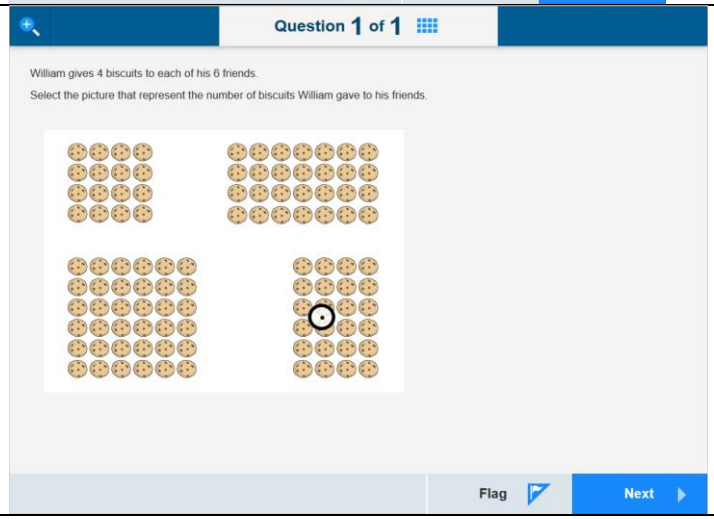
#	Item Type	Short name	Student Player view	Sample "Correct Answer" as appears in R&R dataset	Notes
3	Hot text	HT		0010	
4	Interactive associate	IA		[{"ValueMatch":"xg00007830", "Australia"}, {"ValueMatch":"xg00007831", "Canada"}]	
5	Interactive graphic associate	IGA		[{"ValueMatch":"Brisbane", "Adelaide"}]	

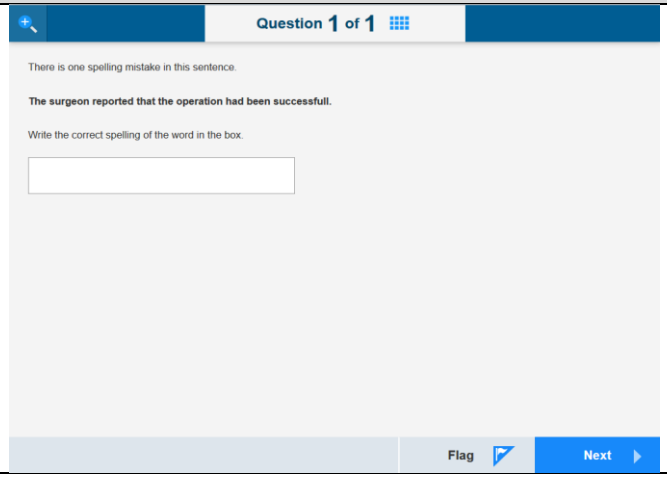
#	Item Type	Short name	Student Player view	Sample "Correct Answer" as appears in R&R dataset	Notes
6	Interactive graphic gap match	IGGM		[{"ValueMatch":"(–5\, –2)", "C"},{"ValueMatch":"(–2\, 5)", "B"},{"ValueMatch":"(2\, –3)", "D"},{"ValueMatch":"(3\, 2)", "A"}]	
7	Interactive gap match	IGM		[{"ValueMatch":"children", "Gap 1"}]	

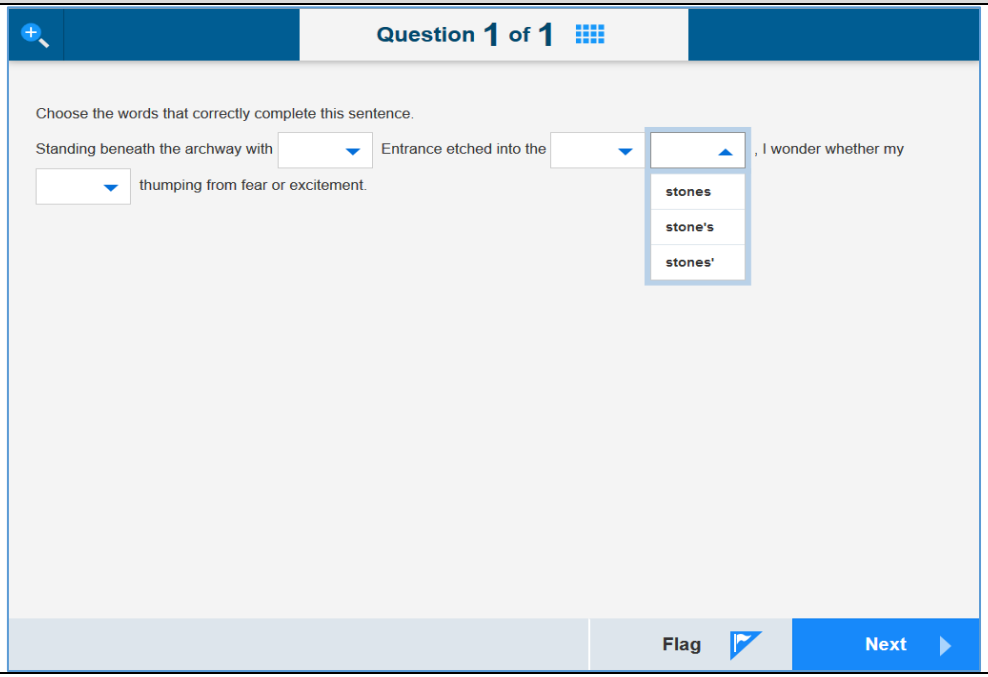
#	Item Type	Short name	Student Player view	Sample “Correct Answer” as appears in R&R dataset	Notes
8	Interactive graphic order	IGO		["Western Australia", "Northern Territory", "Queensland", "New South Wales", "South Australia", "Victoria", "Tasmania"]	
9	Interactive match	IM		[{"ValueMatch":"an historical recount", "The Rosetta Stone"},{"ValueMatch":"a persuasive article", "Whose rock is it\, anyway?"}]	

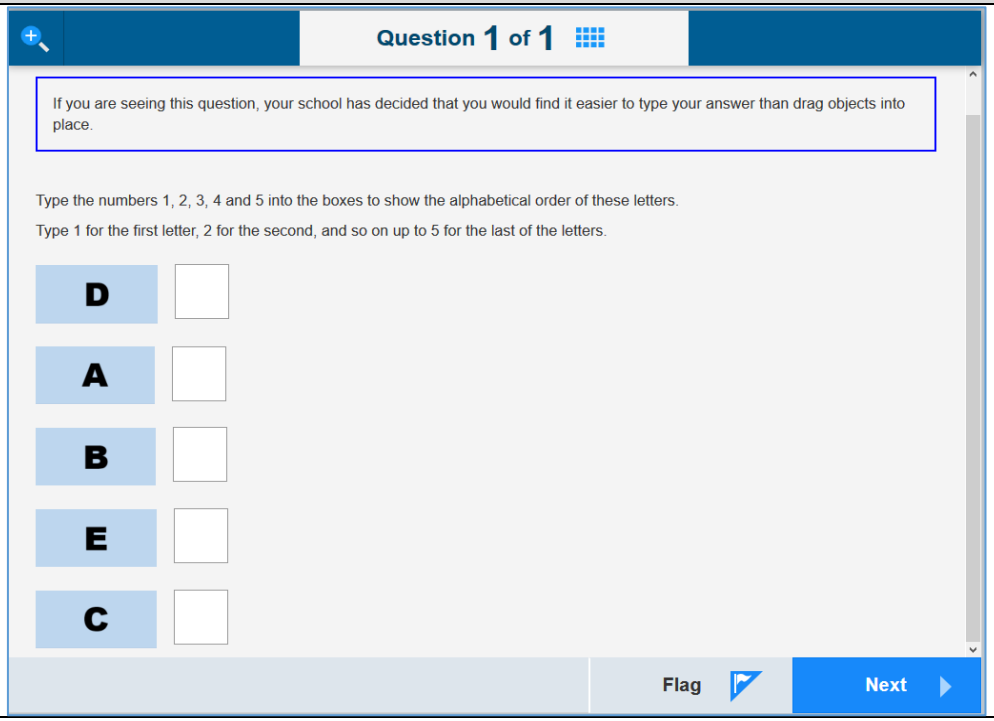
#	Item Type	Short name	Student Player view	Sample "Correct Answer" as appears in R&R dataset	Notes
10	Interactive order	IO		3503,3053,3005,530,503	
11	Multiple choice	MC		1	

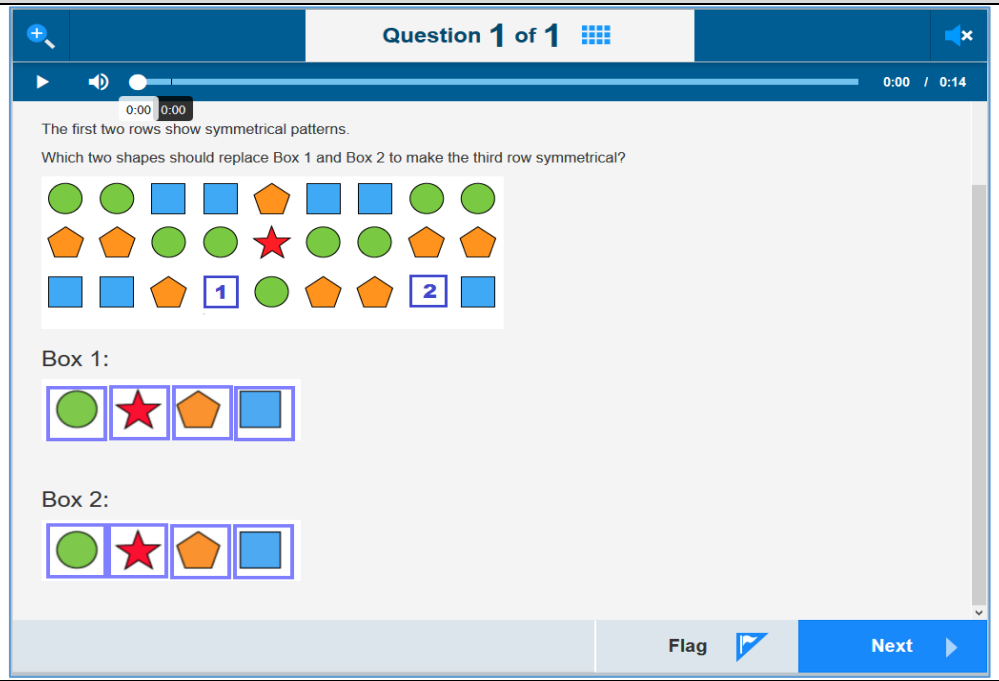
#	Item Type	Short name	Student Player view	Sample "Correct Answer" as appears in R&R dataset	Notes
12	Multiple choices	MCS		10100	
13	Position object	PO		aia01-aia01-000011,aia01-aia01-000012	

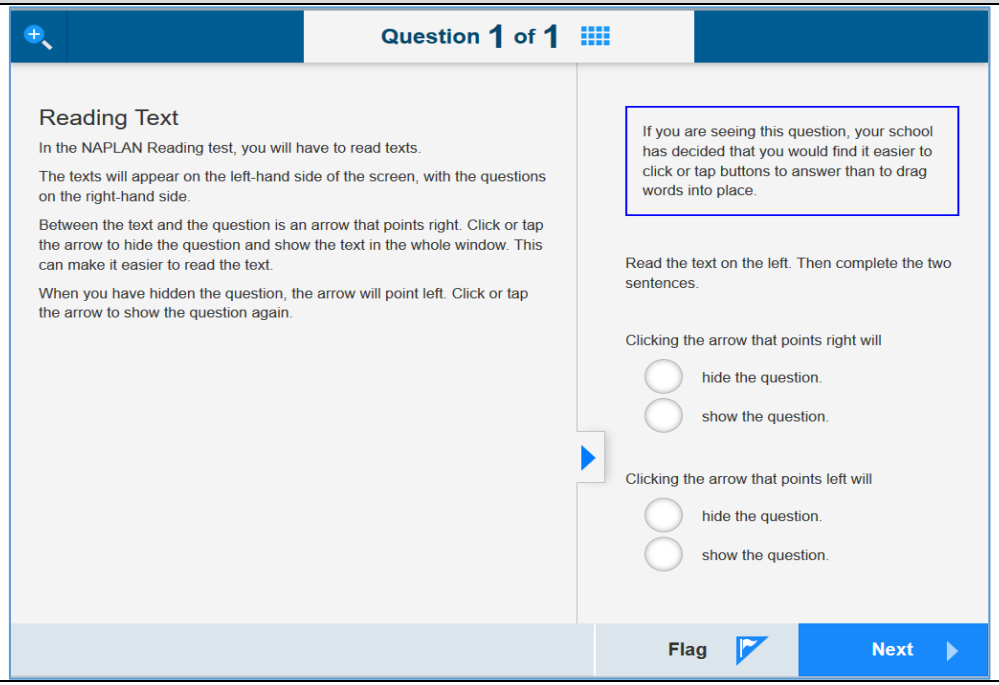
#	Item Type	Short name	Student Player view	Sample “Correct Answer” as appears in R&R dataset	Notes
14	Slider	SL		0.4	
15	Select point	SP		["ValuePoint":"421","276"]	

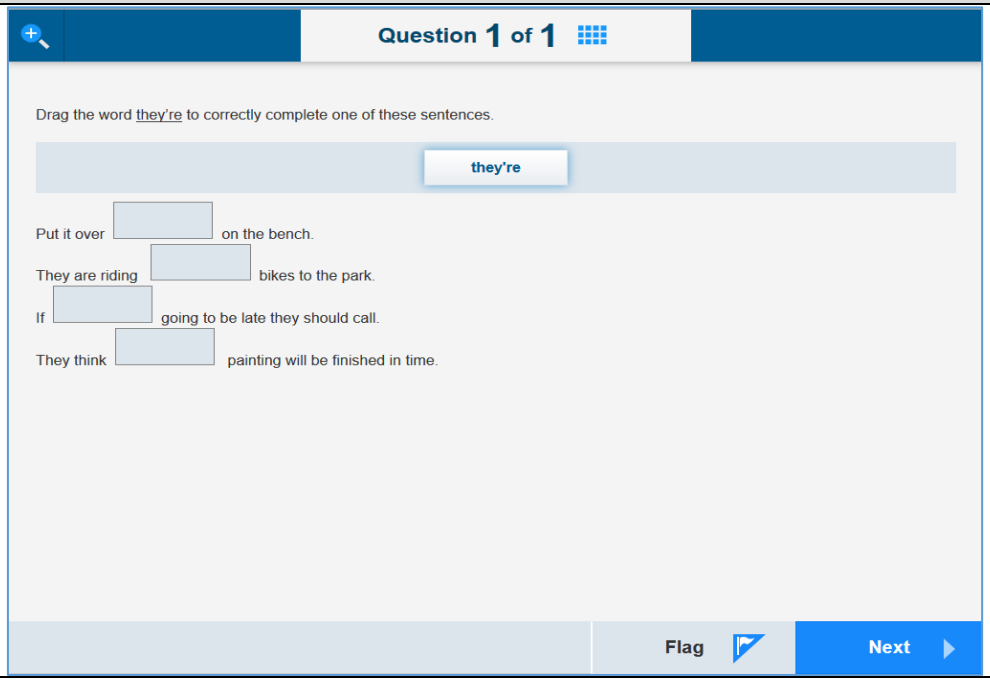
#	Item Type	Short name	Student Player view	Sample “Correct Answer” as appears in R&R dataset	Notes
16	Text entry	TE		["successful"]	
17	Inline choice	IC	Refer composite	Refer composite	Always contained within a composite item type, by virtue of being an inline interaction

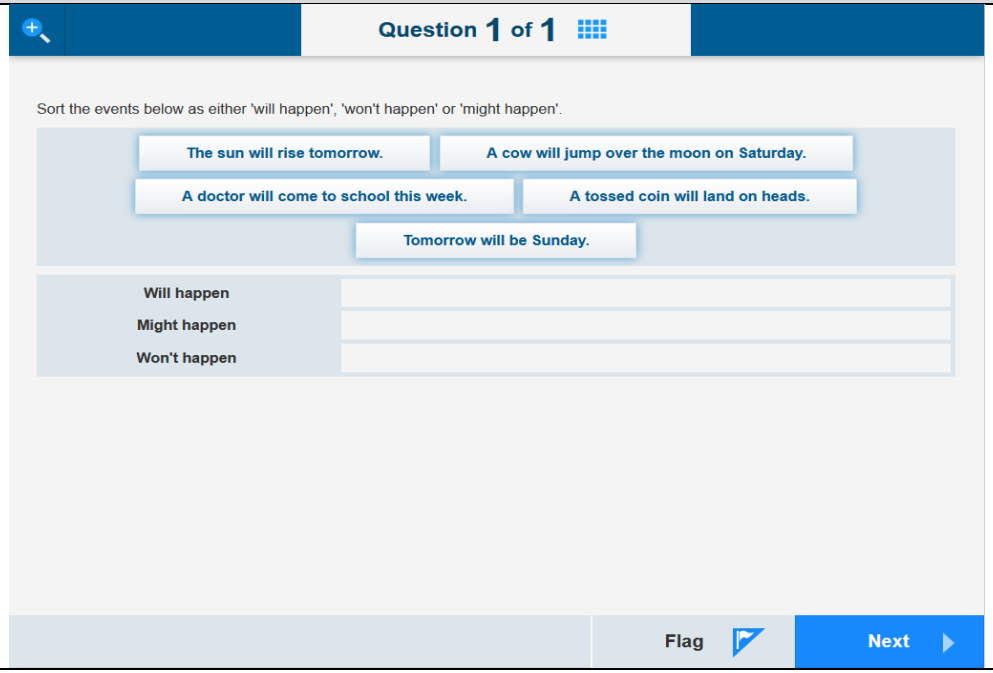
#	Item Type	Short name	Student Player view	Sample "Correct Answer" as appears in R&R dataset	Notes
18	Composite (Composite with inline choice interactions) – 4 interactions shown	CO		[Pupils', centuries-old, stones, heart's]	Composite is a wrapper for other interactions, with answers related to the individual interactions, separated by commas and enclosed in square brackets.

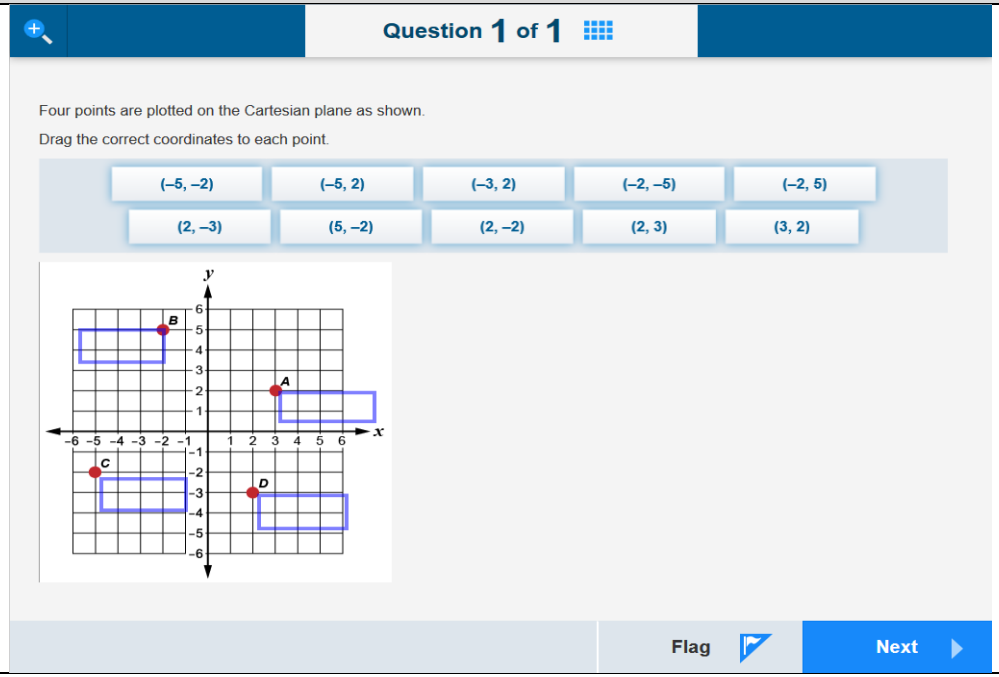
#	Item Type	Short name	Student Player view	Sample "Correct Answer" as appears in R&R dataset	Notes
19	Composite (Composite with text entry interactions) – 5 interactions shown	CO		[["4", "1", "2", "5", "3"]]	Composite is a wrapper for other interactions, with answers related to the individual interactions, separated by commas and enclosed in square brackets.

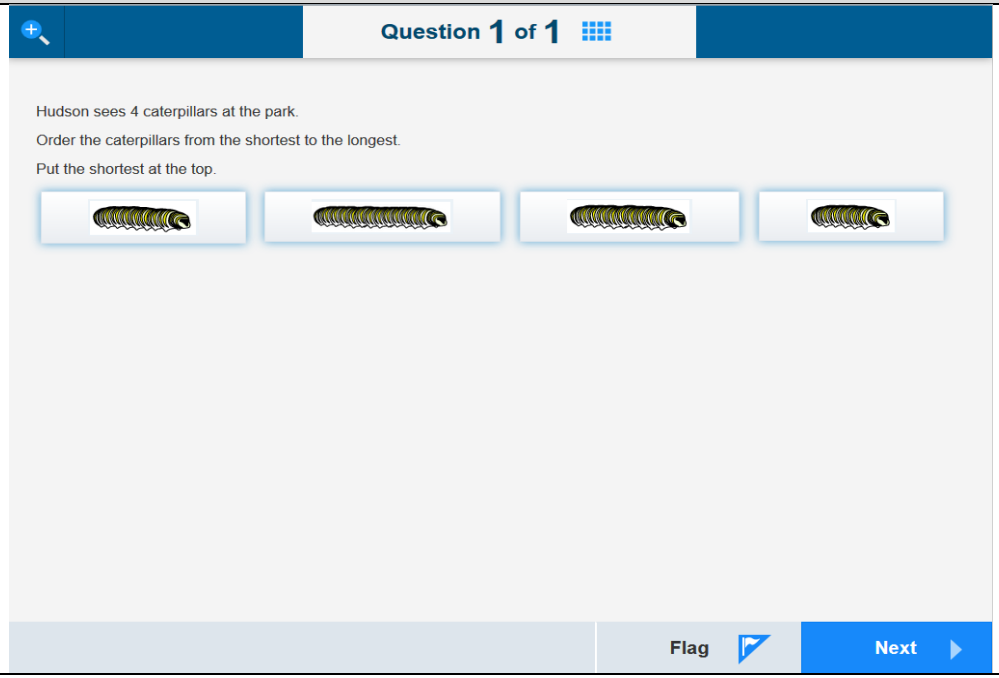
#	Item Type	Short name	Student Player view	Sample "Correct Answer" as appears in R&R dataset	Notes
20	Composite (Composite with Hot Spot Item Interaction) – 2 interactions shown	CO		[0010, 0001]	Composite is a wrapper for other interactions, with answers related to the individual interactions, separated by commas and enclosed in square brackets.

#	Item Type	Short name	Student Player view	Sample "Correct Answer" as appears in R&R dataset	Notes
21	Composite (Composite with Multiple choice item interaction) – 2 interactions shown	CO		[1, 2]	Composite is a wrapper for other interactions, with answers related to the individual interactions, separated by commas and enclosed in square brackets.

#	Item Type	Short name	Student Player view	Sample "Correct Answer" as appears in R&R dataset	Notes
22	Composite (Composite with Interactive Gap Match interaction) – 1 interaction shown	CO		[[{"ValueMatch": "they're", "Gap 3"}]]	Composite is a wrapper for other interactions, with answers related to the individual interactions, separated by commas and enclosed in square brackets.

#	Item Type	Short name	Student Player view	Sample "Correct Answer" as appears in R&R dataset	Notes
23	Composite (Composite with Interactive Match (Drag and Drop) Item interaction) – 3 interactions shown	CO		[[{"ValueMatch": "The sun will rise tomorrow.", "Will happen"}, {"ValueMatch": "A doctor will come to school this week.", "Might happen"}, {"ValueMatch": "A tossed coin will land on heads.", "Might happen"}, {"ValueMatch": "A cow will jump over the moon on Saturday.", "Won't happen"}, {"ValueMatch": "Tomorrow will be Sunday.", "Won't happen"}]]	Composite is a wrapper for other interactions, with answers related to the individual interactions, separated by commas and enclosed in square brackets.

#	Item Type	Short name	Student Player view	Sample "Correct Answer" as appears in R&R dataset	Notes
24	Composite (Composite with Interactive Graphic Gap match item interaction) – 1 interaction shown	CO		[[{"ValueMatch": "(-5\, -2)", "C"}, {"ValueMatch": "(-2\, 5)", "B"}, {"ValueMatch": "(2\, -3)", "D"}, {"ValueMatch": "(3\, 2)", "A"}]]	Composite is a wrapper for other interactions, with answers related to the individual interactions, separated by commas and enclosed in square brackets.

#	Item Type	Short name	Student Player view	Sample "Correct Answer" as appears in R&R dataset	Notes
25	Composite (Composite with Interactive Order item interaction) – 1 interaction shown	CO		[Smallest, Third Largest, Second Largest, Largest]	Composite is a wrapper for other interactions, with answers related to the individual interactions, separated by commas and enclosed in square brackets.

Note: Composite items are containers for one or more interactions of any type. They may contain: one text entry interaction; two multiple-choice interactions; one interactive match plus one interactive gap match; any other combination and number of interactions. In 2018 they will be scored as 0/1.

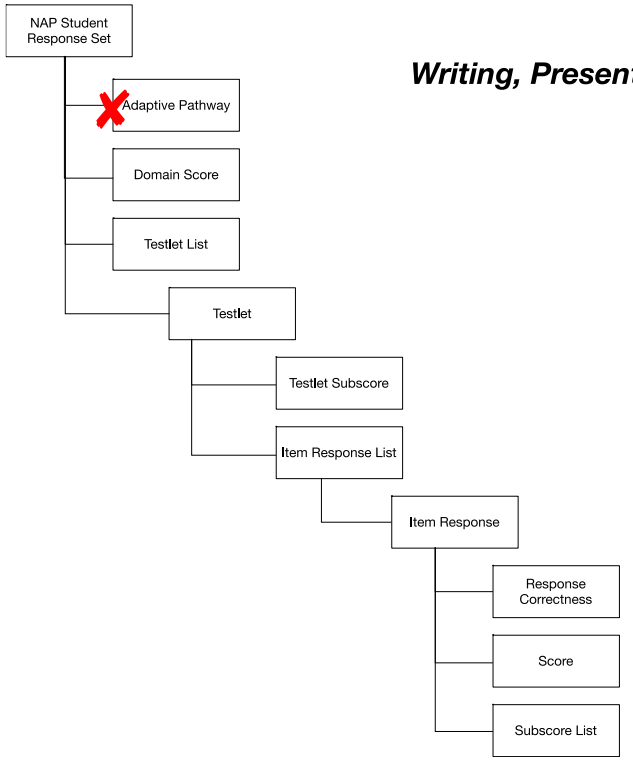
Appendix B: NAPStudentResponseSet impacts

The **NAPStudentResponseSet** object contents returned in the Results & Reporting dataset is determined by both the student test participation code and the test domain.

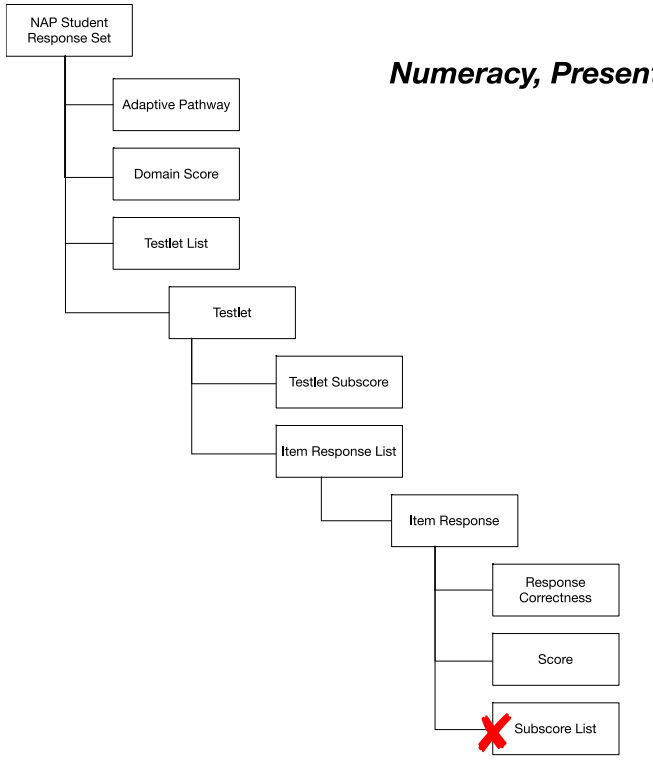
Different fields are returned based on different participation codes:

- If the participation of the student is P, all fields may appear
- If the participation of the student is A, E, W, X, the object is not created at all
- If the participation of the student is R, the object is populated with (overall) scores (0), but with no responses
- If the participation of the student is S, the object is populated with responses, but with no scores (NULL)

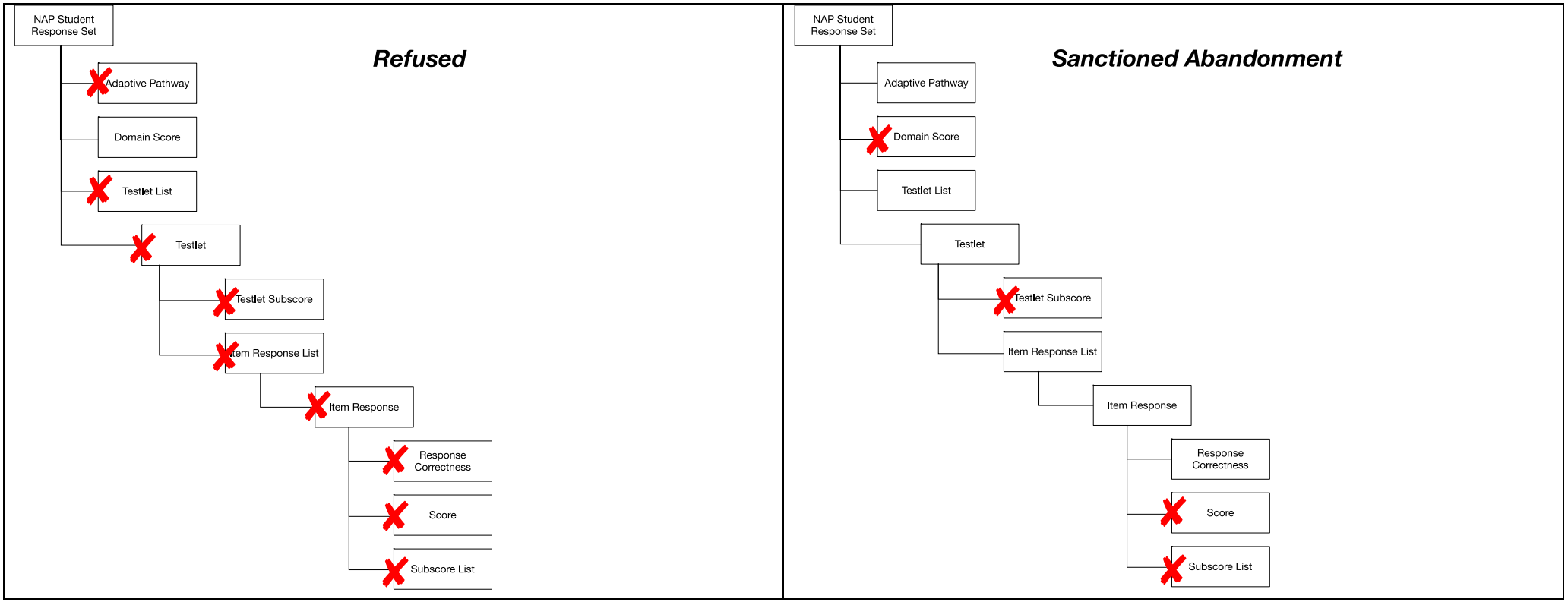
Different fields are provided for the test domain of Writing, which is not an adaptive or tailored test.



Writing, Present



Numeracy, Present


NAP Student Response Set
Refused
Adaptive Pathway
Domain Score
Testlet List
Testlet
Testlet Subscore
Item Response List
Item Response
Response Correctness
Score
Subscore List
NAP Student Response Set
Sanctioned Abandonment
Adaptive Pathway
Domain Score
Testlet List
Testlet
Testlet Subscore
Item Response List
Item Response
Response Correctness
Score
Subscore List

NAPStudentResponseSet Element Name	Obligation	Refused	Sanctioned Abandonment	Writing	Numeracy (or any other non-writing test)
@RefId	M	M	M	M	M
ReportExclusionFlag	M	M	M	M	M
CalibrationSampleFlag	O	O	O	O	O
EquatingSampleFlag	O	O	O	O	O
PathTakenForDomain	C	X	C	X	M
ParallelTest	C	X	C	X	M
StudentPersonalRefId	O	O	O	O	O
PlatformStudentIdentifier	M	M	M	M	M
NAPTestRefId	O	O	O	O	O
NAPTestLocalId	M	M	M	M	M
DomainScore	C	M	X	C	C
DomainScore/ RawScore	M	M	X	M	M
DomainScore/ ScaledScoreValue	M	M	X	M	M
DomainScore/ ScaledScoreLogitValue	M	M	X	M	M
DomainScore/ ScaledScoreStandardError	M	M	X	M	M
DomainScore/ ScaledScoreLogitStandardError	M	M	X	M	M
DomainScore/ StudentDomainBand	M	M	X	M	M

NAPStudentResponseSet Element Name	Obligation	Refused	Sanctioned Abandonment	Writing	Numeracy (or any other non-writing test)
DomainScore/ StudentProficiency	M	M	X	M	M
DomainScore/ PlausibleScaledValueList	M	M	X	M	M
DomainScore/ PlausibleScaledValueList/ PlausibleScaledValue	MR	MR	X	MR	MR
TestletList	C	X	M	C	C
TestletList/ Testlet	MR	X	MR	MR	MR
TestletList/ Testlet/ NAPTestletRefId	O	X	O	O	O
TestletList/ Testlet/ NAPTestletLocalId	M	X	M	M	M
TestletList/ Testlet/ TestletSubscore	O	X	X	M	M
TestletList/ Testlet/ ItemResponseList	M	X	M	M	M
TestletList/ Testlet/ ItemResponseList / ItemResponse	MR	X	MR	MR	MR
TestletList/ Testlet/ ItemResponseList / ItemResponse / NAPTestItemRefId	O	X	O	O	O
TestletList/ Testlet/ ItemResponseList / ItemResponse / LocalId	M	X	M	M	M
TestletList/ Testlet/ ItemResponseList / ItemResponse / Response	O	X	O	O	O
TestletList/ Testlet/ ItemResponseList / ItemResponse / ResponseCorrectness	M	X	M	M	M
TestletList/ Testlet/ ItemResponseList / ItemResponse / Score	O	X	X	O	O
TestletList/ Testlet/ ItemResponseList / ItemResponse / LapsedTimeItem	O	X	O	O	O
TestletList/ Testlet/ ItemResponseList / ItemResponse / SequenceNumber	M	X	M	M	M
TestletList/ Testlet/ ItemResponseList / ItemResponse / ItemWeight	M	X	M	M	M

NAPStudentResponseSet Element Name	Obligation	Refused	Sanctioned Abandonment	Writing	Numeracy (or any other non-writing test)
TestletList/ Testlet/ ItemResponseList / ItemResponse / SubscoreList	O	X	X	M	X
TestletList/ Testlet/ ItemResponseList / ItemResponse / SubscoreList/ Subscore	MR	X	MR	MR	X
TestletList/ Testlet/ ItemResponseList / ItemResponse / SubscoreList/ Subscore/ SubscoreType	M	X	M	M	X
TestletList/ Testlet/ ItemResponseList / ItemResponse / SubscoreList/ Subscore/ SubscoreValue	M	X	M	M	X

As an example and for the purpose of simplicity, high level indicative fields are as follows:

NAPStudentResponseSet	Obligation	Participation "Refused"	Participation "Sanctioned Abandonment"	Writing with participation "Present"	Numeracy with participation "Present"
Adaptive Pathway	C	X	C	X	M
DomainScore	C	M	X	M	M
TestletList	C	X	M	M	M
TestletList/ Testlet/ TestletSubscore	O	X	X	M	M
TestletList/ Testlet/ ItemResponseList / ItemResponse / Response	O	X	O	O	O
TestletList/ Testlet/ ItemResponseList / ItemResponse / ResponseCorrectness	M	X	M	M	M
TestletList/ Testlet/ ItemResponseList / ItemResponse / Score	O	X	X	M	M
TestletList/ Testlet/ ItemResponseList / ItemResponse / SubscoreList	O	X	X	M	X