

Navigator Content & Metadata Framework

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Overview

This document describes the different content types (also called Learning Activities) in the Navigator's content model, their structure, associated metadata and the hierarchy.

Content Types / Learning Activities

Resources

Resources are individual learning units aligned to a specific competency and can be one of the following types:

- Web pages
 - Web pages are hosted externally and can be accessed via a URL.
- Video
 - Videos are publicly accessible Youtube or Vimeo videos
- Text
 - Any uploaded PDFs or documents on Google Drive.
- Image
 - Image of any format
- Audio
 - Audio resources with embedded players in external web pages or in Google Drive
- Interactive
 - Resources on external web pages that are interactive
- Offline activities
 - Activities that are completed offline and data about these reported online

Questions

Questions are used to evaluate the student's understanding of concepts and can be one of the following types:

- Multiple choice
 - These questions present multiple options as answer choices of which only one option is the right answer. Student can select only one of the options to mark as the right answer.
- Multiple Answers
 - These questions present multiple options as answer choices of which more than one is the right answer. Students can select multiple options to mark as their answer

- Fill in the Blanks
 - A Fill in the Blank question consists of a phrase, sentence, or paragraph with one or more blank spaces where students provide the missing word or words.
- True or False
 - Students choose True or False in response to a given statement in the question
- Highlight Text
 - Students select specific words and highlight them as a response in the given statement in the question
- Highlight Image
 - Students are presented with multiple images for a question statement and select one or more images as a response
- Drag and Drop Order
 - Students are provided with a list of items that need to be sequenced in a particular order. Students can use drag and drop to sequence them in the right order
- Multiple Select Image
 - Students are presented with multiple images as answer options and are required to select one or more of these as the right answer
- Multiple Select Text
 - Students are required to select multiple words from a sentence or sentences as answer to the question
- Free Response
 - Students provide answers in free form text. Free Response questions have a rubric associated with them for the teacher (or student) to grade the answers.

Collections

A collection is a playlist of resources on a topic curated by a teacher. Each collection is comprised of resources, which may include images, videos, webpages, games, textbooks, questions, and more.

Students interact with the content at the collection level. Content author is expected to include learning objectives and consider using a variety of resource types to expose students to the concepts in multiple ways.

The resources are expected to be sequenced in the right order to build on the concepts. Progression through a collection should flow in a logical manner and take the intended audience from a general to more complex level of understanding if appropriate, or allow adequately for student exploration. Questions are used in collections to check for understanding along the way.

Collection Types

native	These are collections put together based on resources / questions available at catalog
external	These are special type of collections that index external content that is construct-wise similar to Navigator collection. These are hosted and managed at external sites and are accessible via a URL.

Assessments

An assessment is a set of scored questions, which are used to monitor understanding and performance. Assessments typically have a variety of question types (including several based on the SBAC) so that students can demonstrate understanding in different ways. Each question should be tagged to standards, micro-standards, and Webb’s Depth of Knowledge.

Assessment Types

native	These are assessments put together based on questions available at catalog
external	These are special type of assessments that index external content that is construct-wise similar to Navigator collection. These are hosted and managed at external sites and are accessible via a URL.
projects	These are special type of assessments that may not be completed in a single session by a learner and usually requires considerable amount of effort across sessions as well as work outside the digital environment

Lessons

Lessons have two types of activities: learning collections and assessments. Lessons are built with collections and assessments that are created by the author or remixed from collections and assessments that are in the Navigator catalog. Lessons are tagged to standards and learning objectives along with other metadata.

Units

Units is another container layer for organizing lessons together to create a diverse experience for the learner. Units are identified with Big Ideas and Essential Question. Units are sequenced chronologically, by topic, or by standard.

Courses

A course is a container folder that allows the author to organize learning content into units and lessons, and easily share the entire course with the learners.

Rubrics

A rubric is a document that articulates the expectations for a free response question or an offline activity by listing the criteria, or what counts (called categories in the Navigator), and describing levels of quality. Each level can have a score associated with it. The score for the question or activity is the on the level assigned for each category

Content Structure and Hierarchy

Navigator content has a fixed structure modelled around the Taxonomy structure evident through the K-12 use. Content hierarchy is as below:



Content Metadata Framework

Navigator identifies and captures several metadata for the learning activities.

The metadata captured can vary depending on the type of learning activity. The list of all metadata captured with description about them can be found [here](#)

The metadata can be grouped under various categories such as Descriptive, Educational, Media, Framework etc. and also based on whether user tagged or curated and machine extracted or computed.

Based on Activity

The following table list the related metadata across different activity types. Refer to the [spreadsheet](#) for description about each metadata, which of these are mandatory etc.

Group	Resource	Collection	Assessment	Lesson	Unit	Course
Descriptive	Title Description	Title Description	Title Description	Title Description	Title Description	Title Description
Educational	Educational Use Audience Lexile Level Learning Target Time Required Educational Alignment Age Range Language Grade Level	Educational Use Audience Lexile Level Learning Target Objective Time Required Educational Alignment Age Range Grade Level	Educational Use Audience Lexile Level Learning Target Time Required Educational Alignment Age Range Language Grade Level	Educational Use Audience Time Required Educational Alignment Age Range Grade Level	Big Ideas Essential Questions Audience Time Required Educational Alignment Age Range Grade Level	Audience Time Required Educational Alignment Age Range Grade Level
Framework	Subject Taxonomy Course Domain Standards	Subject Taxonomy Course Domain Standards	Subject Taxonomy Course Domain Standards	Subject Taxonomy Course Domain Standards	Subject Taxonomy Course Domain Standards	Subject Taxonomy Course Domain Standards
Instructional	Habits of Success (21st Century Skills) Instructional Model	Habits of Success (21st Century Skills) Instructional Model	Habits of Success (21st Century Skills) Instructional Model Depth of Knowledge	Habits of Success (21st Century Skills) Instructional Model	Habits of Success (21st Century Skills) Instructional Model	Habits of Success (21st Century Skills) Instructional Model
Scope and Sequence	Pacing guide	Pacing guide	--	Pacing guide	Pacing guide	Pacing guide
Vectors	Relevance Engagement Efficacy Transcript Summary Phrase cloud Plot similarity Geo-region	Relevance Engagement Efficacy	Relevance Engagement Efficacy	--	--	--

Media	Format Url Alternate Url Advertisement Level Media Features Mobile Friendly Keywords Access Hazard Access Mode Control Flexibility Accessibility API Framebreaker Visibility Broken	Keywords Thumbnail Visibility	Keywords Visibility Thumbnail	Keywords Thumbnail Visibility	Keywords Thumbnail Visibility	Keywords Thumbnail Visibility
Creation	Publisher Aggregator Host Author License Copyright Created Date Modified Date Created at Source Country Code Creator id Modified by Owner id	Publisher Aggregator Host Author Collaborators Created Date Modified Country Code Creator id Modified by Owner id	Publisher Aggregator Host Author Collaborators Created Date Modified Country Code Creator id Modified by Owner id	Publisher Aggregator Host Author Created Date Modified Country Code Creator id Modified by Owner id	Publisher Aggregator Host Author Created Date Modified Country Code Creator id Modified by Owner id	Publisher Aggregator Host Author Collaborators Created Date Modified Country Code Creator id Modified by Owner id
Other	Tags	Tags	Tags	Tags	Tags	Tags

Developing Content on the Navigator

Content developers can create [Collections](#), [Assessment](#), and [Courses](#) as per the Navigator content model and course hierarchy as described above. They can also use existing published content and remix it into their accounts. Remixing creates a copy within their account and they can modify the remixed content to meet their needs.

They can also create [Resources](#), [Questions](#) etc. from scratch without remixing what is currently available.