Teacher Group Creation + Standard Selection UI

Lead	**TJ**	**Updated**	**6/18**
Collaborators	Travis G. (Design)	**Created**	4/23
Current Status	SPEC WIP		
Related Docs	SPEC: State Standards Mapping + Standard Selection UI		

Spec Kickoff Prep

Problem

The current user experience for creating groups and selecting a specific standard is sub-optimal. Here are the top issues:

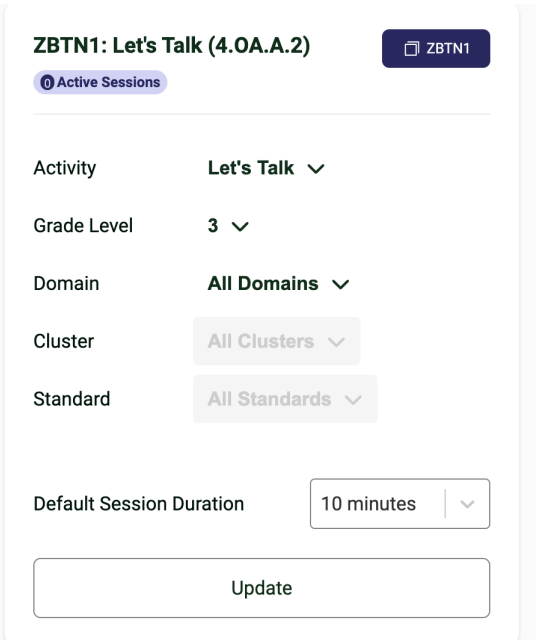
1. **Cumbersome/Multi-Step:** Teachers have to select from 4 dropdowns to get to the specific standard
2. **Requires Deep Standards Knowledge:** Teachers must bring significant CCSS prior knowledge to know how to navigate the dropdown menu and select the right standard
3. **Lacks Natural Language & Curriculum Search:** Teachers are not able to use natural language (or the language of their specific curriculum) to easily find the right standard
4. **No Scaffolding:** If the goal CCSS standard is too difficult for a specific student group, OKO does not make it easy for the teacher to confirm that fact (e.g., allowing the teacher to preview the problem) and navigate to the building block standards
5. **Substandards:** Currently, sub-standards are shown in the standards dropdown, making finding sub-standards potentially confusing for teachers
6. **Prep & Scheduling:** Because teachers only get 5 group codes, it is hard for teachers to prepare groups in advance

Context

The current selection format of content follows the pattern of the Common Core:

- Grade
- Domain
- Cluster
- Standard (mix with substandards)

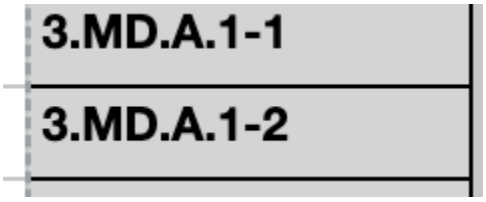
The way it currently works is that educators select from a series of dropdowns to pick the content that they want, with each dropdown populating the information below it.



Audience:

- **Teachers:** Primary audience who will experience this change in selection

1. BE & Data Foundation

1. Standards Table: Create a proper standards data table from existing Standards Table
    a. This is built from the this skills.json (from Assistements)
        i. this data sometimes skips the specific standard when it has substandards
    b. Note: most of the time skills and standards have a 1:1 relation but sometimes there are multiple skills for one standard.
        i. This could be “official” CCSS substandards that are shown with letter eg:
            1. `3.MD.C.7a`
            2. `3.MD.C.7b`
        ii. Or "unofficial” substandards created by Assistments that are shown with dashes, eg:
            1. 

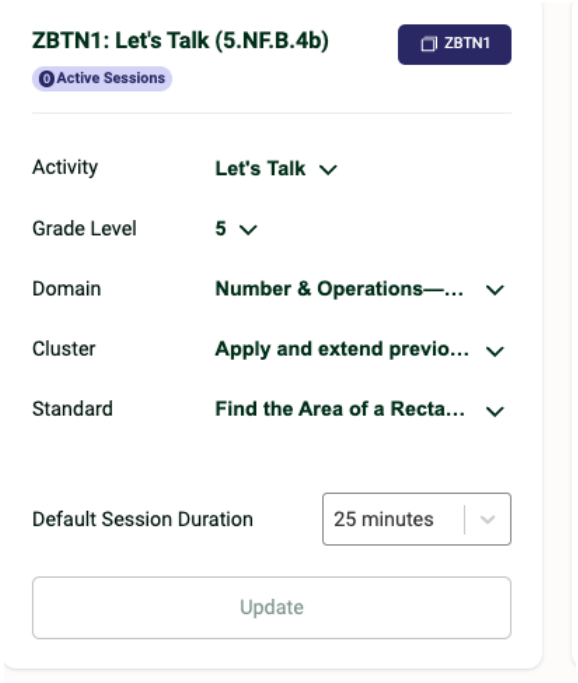
    c. Update the standards table to:
        i. Make "sub-standards" one level lower than standards
        ii. For standards with substandards, we should still have the standard as an option (all questions mapped to sub-standards should be included when teachers select the standard
2. **Prerequisite Tree**: Map skills and standards to prerequisite skills & standards via the Assistant Mapping
3. **More Group codes:** Can we give teachers more group codes? Or allow them to create more groups on the fly?
4. **Semantic Search** We want teachers to be able to use natural language when they search for the right standard. At XQ we used an AI based Semantic search search to find competencies.
5. **Curriculum Specific Semantic Search POC:** We want semantic search to be a proof of concept that teachers can use our search to find the right standard and substandard **for their specific curriculum**. It would be great to prove this out with Math Curriculum - Illustrative Mathematics K–12 Math

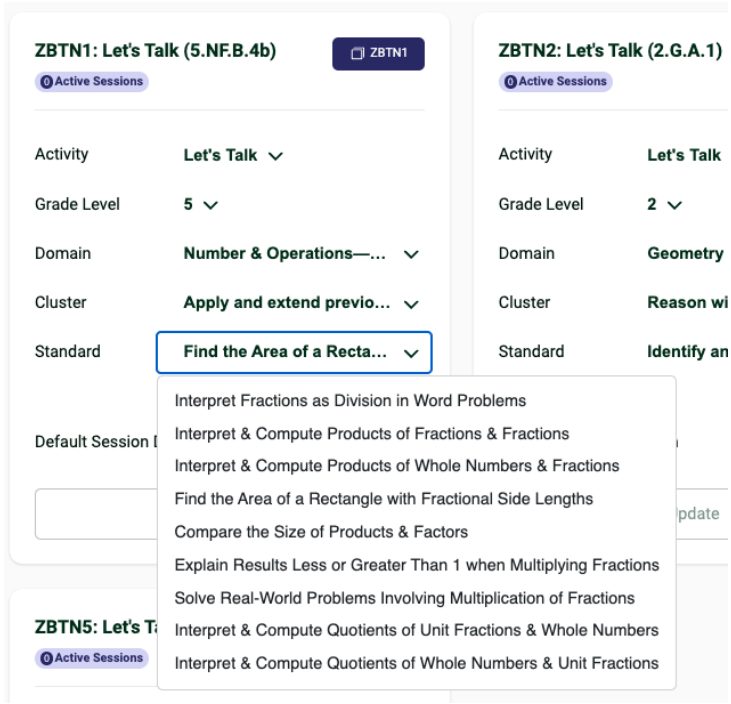
2. UX/UI Update: Teacher Group creation & Standard Selection

Goals & Objective - Part 2: UX/UI Update: Teacher Group creation & Standard Selection

- **User Experience Goal:** improve the ease-of-use for selecting a specific standard, specifically
    - Allow users who haven't memorized their standards system to find the right standards for their students
    - Allow teachers to know if the standard and related questions are too easy, hard or just right for their students. If too hard, allowed them to easily navigate to an easier standard
- **Success Metrics:** Survey: 90% of teachers are happy with standard selection

Current UX





1. Selecting Specific Standard

- Allow users to select standards in 2 ways:
    - Semantic Search: Allow natural language queries ("fractions with unlike denominators")

        - Provide intuitive filters on the results page: grade level, domain, cluster (e.g., Epic Books)
    - Navigating the Standards Tree: (e.g. Illustrative Mathematics or XQ Competencies)
- Show "Recently Used" standards for faster access

3. Standard & Substandard Detail & Preview Features

- Context: Display
    - standard code,
    - short name,
    - Description,
    - # of questions
- View Questions: Enable teachers to click through the full list of questions
- Substandards: when applicable show sub-standards.
    - Allow teachers to select the substandard
- Pre-requisite Skils: When applicable show the prerequisite standards and/or substandards (typically 0-3 options).
    - One-click navigation to prerequisite standards when current selection may be too advanced (and breadcrumbs to get back)
    - Include concise text header reminding teachers to select standards that they think their students are ready for (this is important to having a robust discussion); eg “Pick a standard your students are ready to discuss” → then have rollover text with
        - Choosing a standard your students are ready for is key to a robust, productive discussion. This ensures they have the foundational knowledge to build on each other's ideas without frustration. **If students aren't yet ready for a standard, choosing a prerequisite one can set them up for success.**

Action Items & Status

Item	Owner	Status	Notes
Technical spike: semantic search + Filter implementation approach	Dev TBD		- Sematic Search: TJ can set up call with XQ dev lead to discuss how they did it for the XQ competency navigator if helpful - Search Filter: See Epic Books
Technical spike: Math Standards and skills database schema design	Dev TBD		Including mapping to prerequisite skills
Design mockups	Travis		

Key Open Questions

Question	Owner	Answer
More Group codes: Can we give teachers more group codes? Or allow them to create more groups on the fly?		
Semantic Search + IM Curriculum: What additional context would we need to include for the POC on Math Curriculum - Illustrative Mathematics K–12 Math	TJ	

Related