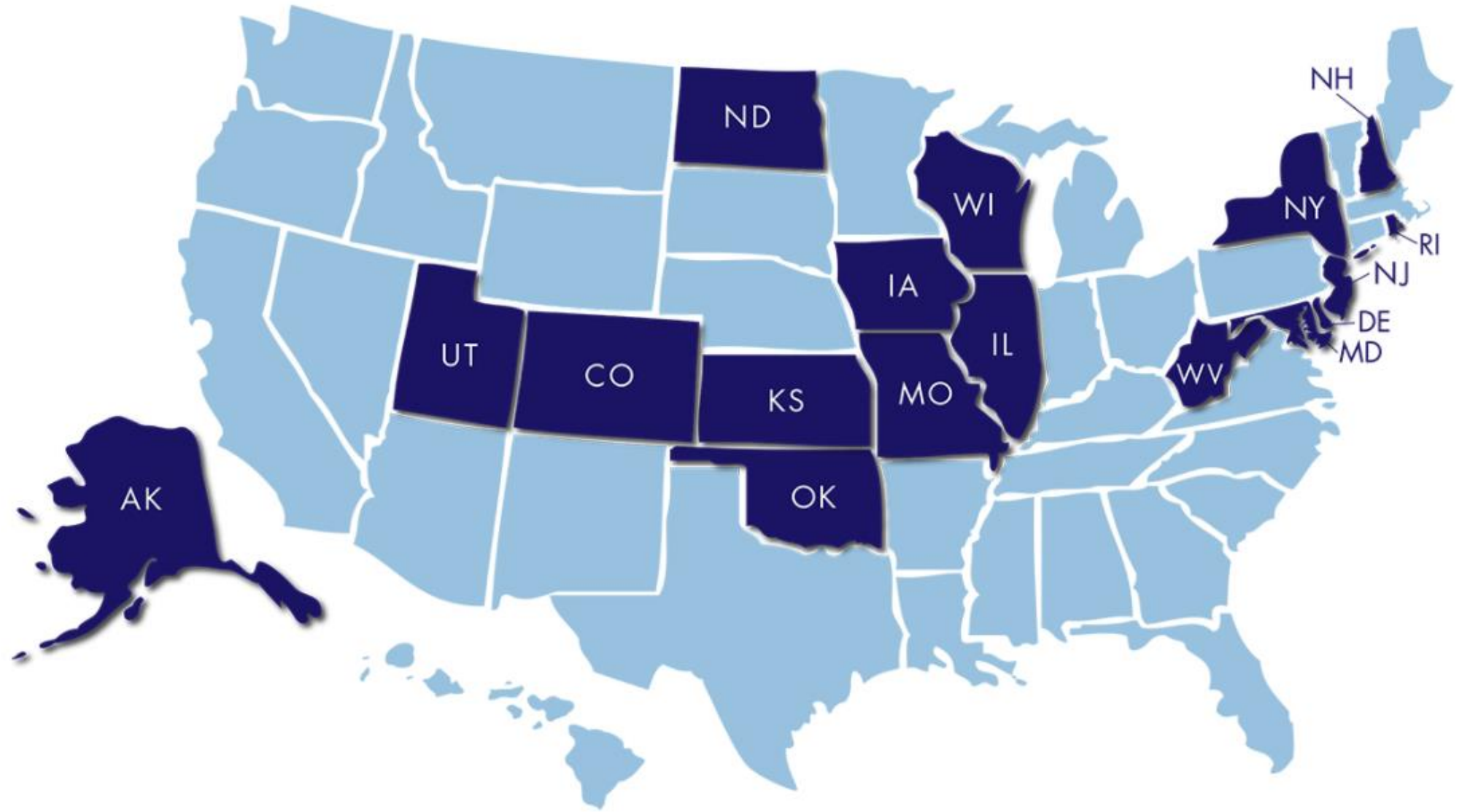


Exploring Teacher Choice When Using an Instructionally Embedded Alternate Assessment System

Meagan Karvonen, Sheila Wells-Moreaux,
and Amy Clark
CEC 2018

Session Overview

- Background on the assessment system
- Summary of teacher choice using instructionally embedded assessment during 2016-2017
- Discussion and implications



ASSESSMENT OVERVIEW

Background

- DLM assessments are for students with the most significant cognitive disabilities in grades 3-8 and high school
- Five states participated in the integrated model blueprint in 2017
 - Provides summative results based on testing conducted throughout the year for English language arts and mathematics

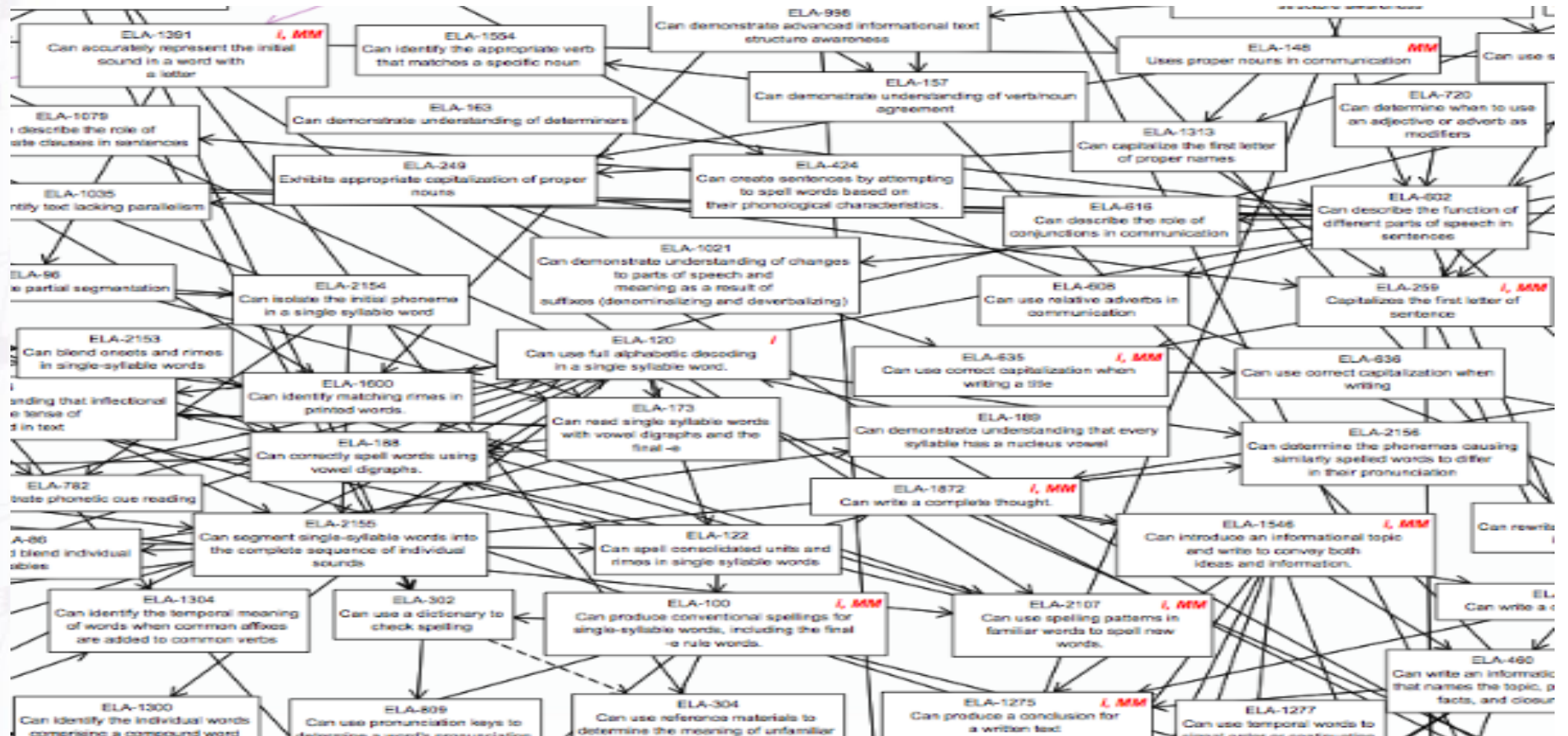
Instructionally Embedded Assessment

- Instructionally embedded assessment is designed to occur alongside instruction and inform subsequent instructional decision making
- Designed to support teacher flexibility in selection and administration of content, level, and frequency based on individual student needs and IEP goals

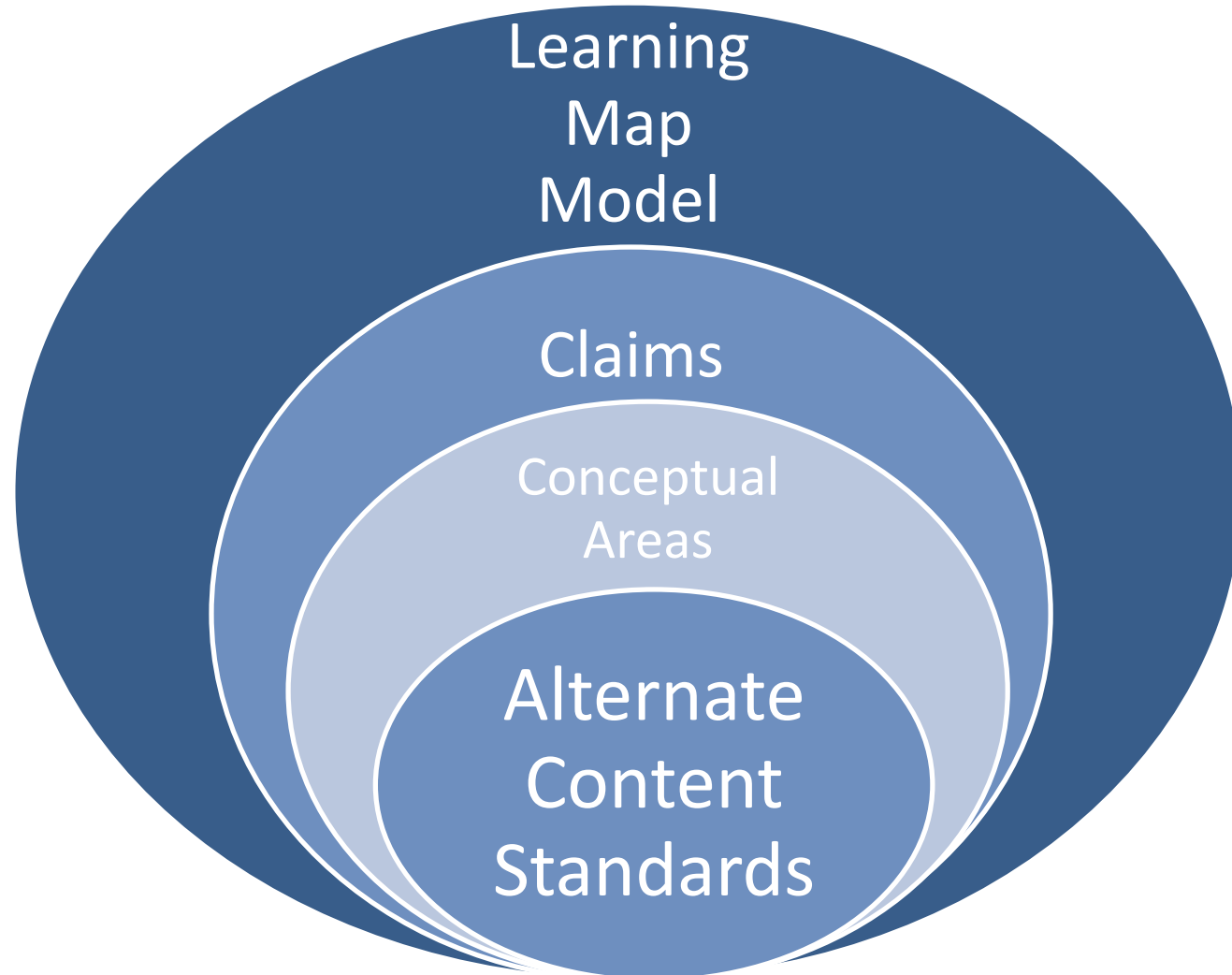
Assessment System

- Basis of assessment is underlying learning map model
- Learning map model depicts skills to be measured and the connections between them

A Portion of a DLM Map



Claims and Conceptual Areas for ELA and Math



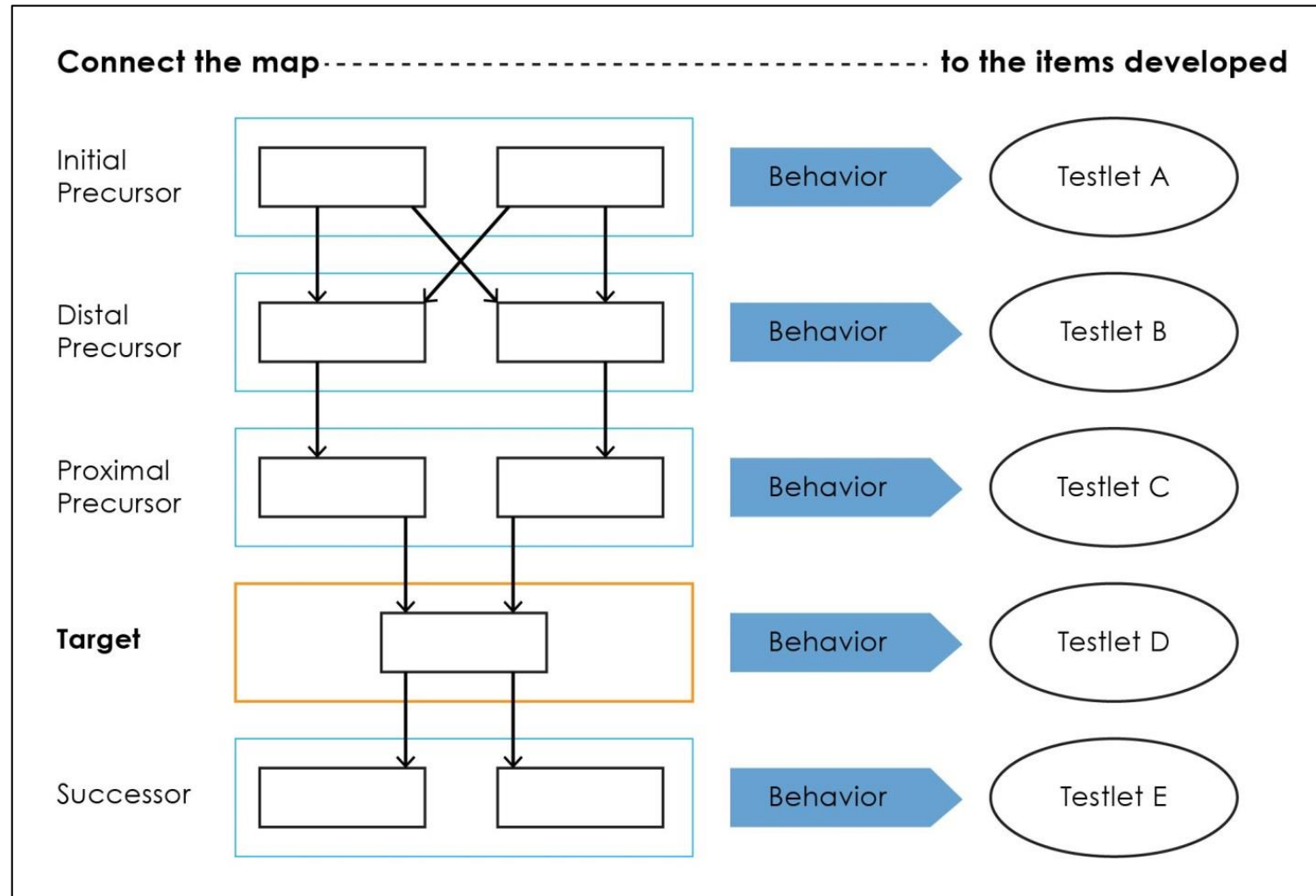
DLM Content Standards: Essential Elements

- Are the target for the grade level
- Reduced depth, breadth, complexity
- Provide appropriate level of rigor and challenge
- Focus on the skills (with multiple means of demonstration)
- Are not functional or pre-K skills or instructional descriptions

Linkage Levels for ELA and Math

- Initial Precursor
 - Foundational nodes, normally intended for students who do not yet have symbolic communication
- Distal Precursor
- Proximal Precursor
- Target
- Successor

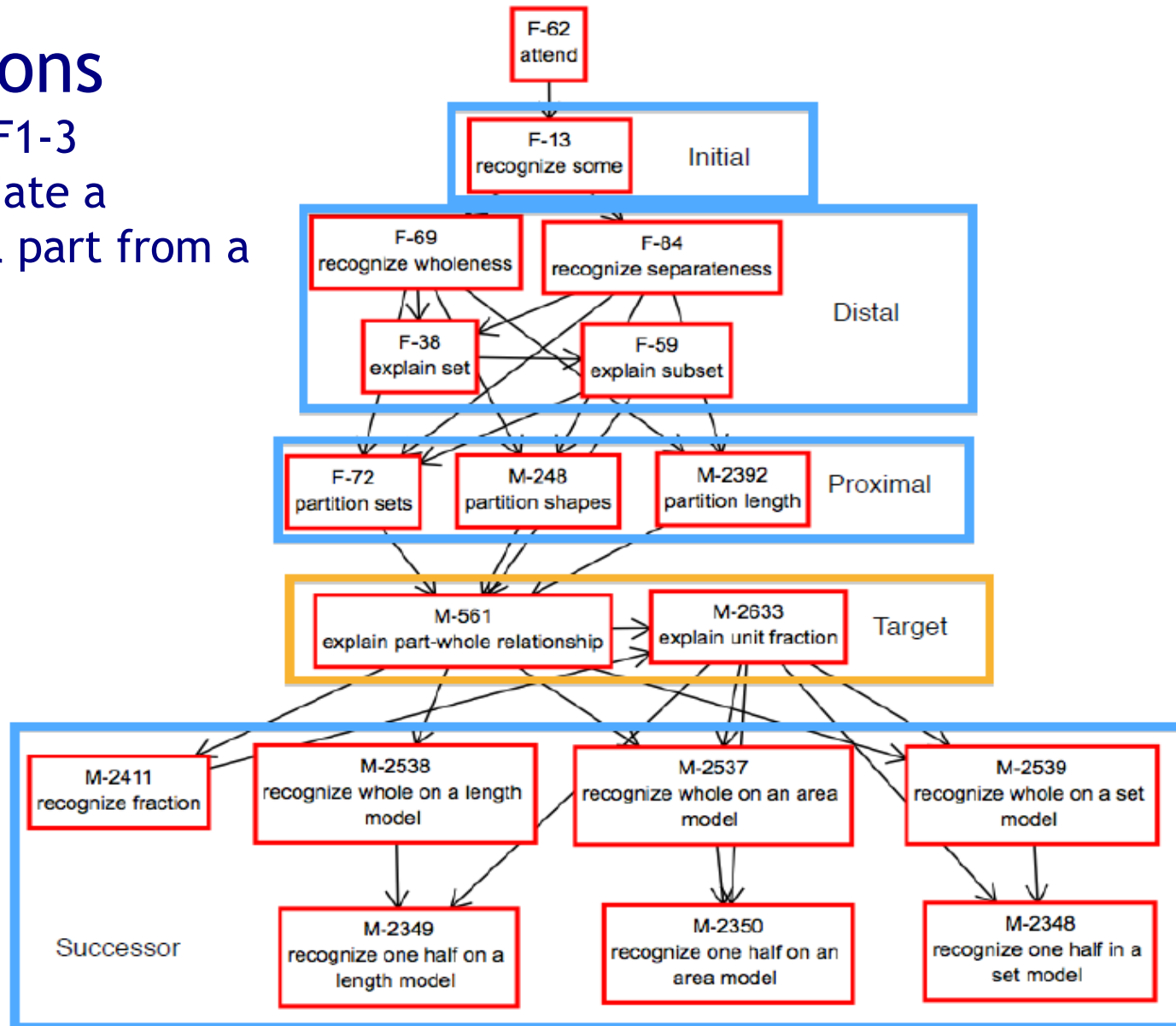
Testlets in Linkage Levels



Fractions

M.EE.3.NF1-3

Differentiate a fractional part from a whole



Assessments at Different Levels

ELA.EE.RI.6.4 Determine how word choice changes the meaning of a text.

Initial Precursor:

- Can demonstrate a receptive understanding of the property words that describe the objects that accompany familiar games or routines

Distal Precursor:

- Can demonstrate an understanding of words with opposite meaning (e.g., cold, hot, up, down)

Proximal Precursor:

- Can understand that words might have a slightly different meaning or use depending on the specific context in which they are used

Target:

- Can ascertain how the meaning of an informational text is altered by the specific word choices the author makes

Successor:

- Can determine how word choice in an informational text is used to persuade or inform

Example for English Language Arts

College & Career Ready Standard

- RL.6.2 Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.

Essential Element

- EE.RL.6.2 Determine the theme or central idea of a familiar story and identify details that relate to it.

Example of Fourth Grade Mathematics

College and Career Readiness Standard

4.MD.5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:

- An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $1/360$ of a circle is called a “one-degree angle,” and can be used to measure angles...

Essential Element

EE.4.MD.5. Recognize angles in geometric shapes.

Blueprint

- Flexible design is intended to allow teachers to assess students at a frequency and level that best meets their students' needs, IEP goals, etc.
- Standards are organized within Claims and Conceptual Areas of similar content
- The blueprint specifies content standards available and guidelines for selection for each grade and subject
 - e.g. Choose 3 standards within Conceptual Area 1.1

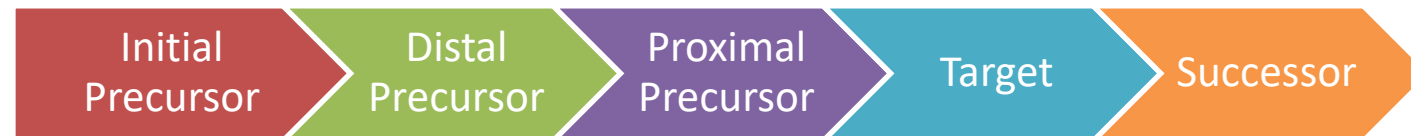
Sample Blueprint

Grade 3: Available Essential Elements and minimum expectation for each student's assessment

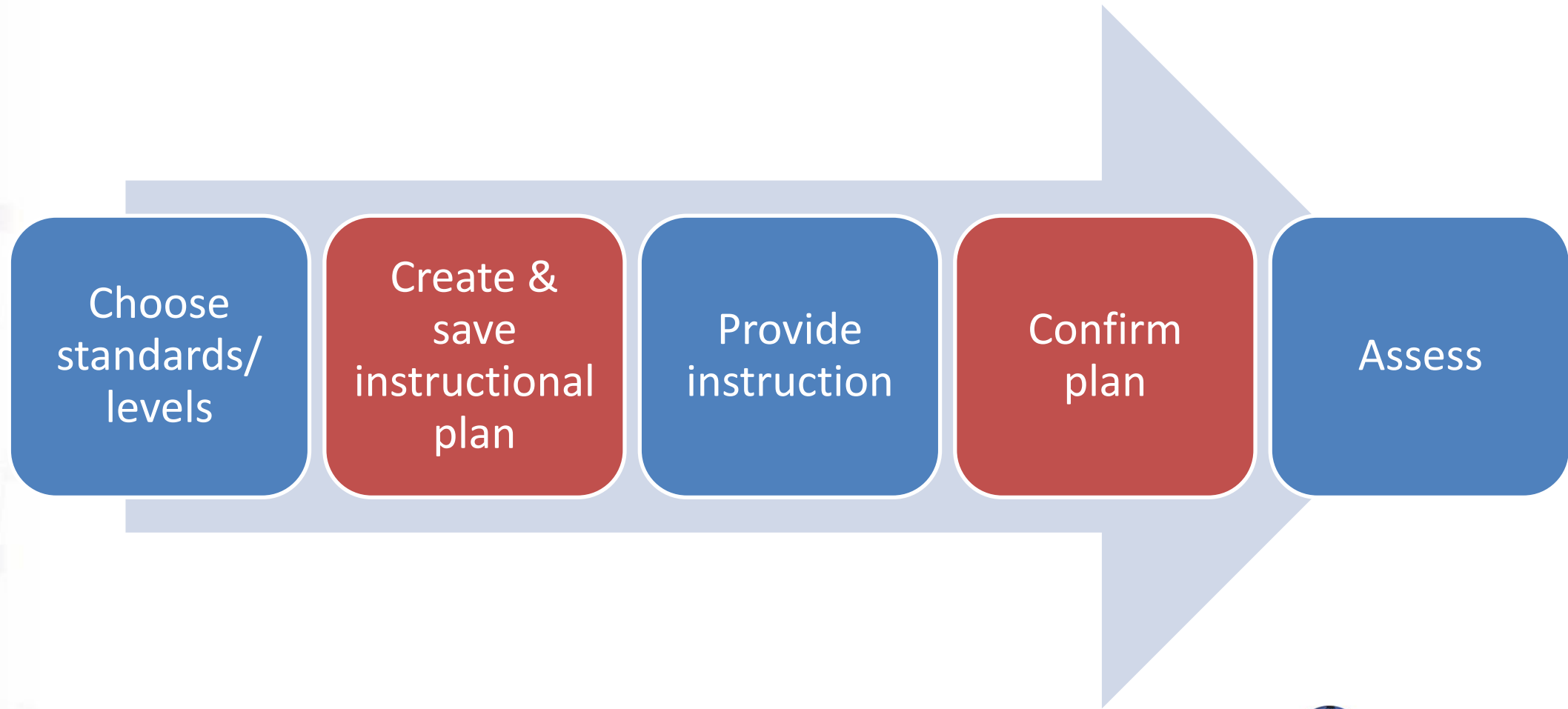
Conceptual Area	EE	DESCRIPTION
ELA.C1.1	Choose at least three EEs, including at least one RL and one RI.	
	EE.RL.3.1	Answer who and what questions to demonstrate understanding of details in a text.
	EE.RL.3.2	Associate details with events in stories from diverse cultures.
	EE.RL.3.3	Identify the feelings of characters in a story.
	EE.RL.3.5	Determine the beginning, middle, and end of a familiar story with a logical order.
	EE.RI.3.1	Answer who and what questions to demonstrate understanding of details in a text.
	EE.RI.3.2	Identify details in a text.
	EE.RI.3.3	Order two events from a text as "first" and "next".
	EE.RI.3.5	With guidance and support, use text features including headings and key words to locate information in a text.
ELA.C1.2	Choose two EEs in C1.2 (L, RL or RI) – EEs must be from different strands, i.e. RL and L, not RL and RL.	
	EE.RL.3.4	Determine words and phrases that complete literal sentences in a text.
	EE.RI.3.4	Determine words and phrases that complete literal sentences in a text.
	EE.RI.3.8	Identify two related points the author makes in an informational text.
	EE.L.3.5.a	Determine the literal meaning of words and phrases in context.
	EE.L.3.5.c	Identify words that describe personal emotional states.
ELA.C1.3	Choose at least one EE (RL or RI).	
	EE.RL.3.9	Identify common elements in two stories in a series.
	EE.RI.3.9	Identify similarities between two texts on the same topic.
ELA.C2.1	All students are assessed in both of these EEs through the writing assessment. In ITI, choose one Conventional EE or one Emergent EE. See Writing Testlet FAQ for more detail.	
	EE.W.3.2.a	Select a topic and write about it including one fact or detail.
	EE.W.3.4	With guidance and support produce writing that expresses more than one idea.

Creation of Instructional Plans

- Teachers create instructional plans using an online system
- They select the standard and level at which they want to instruct and assess the student
- Assessments are available at the five levels for each content standard
 - Administered following instruction



Process for Using Instructionally Embedded Assessments



Testlet Specifics

- Blueprint coverage typically requires between 6-8 testlets in ELA and math depending on the subject and grade during the instructionally embedded assessment window
 - Teachers can choose to assess beyond the number required
- Testlets include an engagement activity followed by \approx 3-5 items measuring the selected standard and level

Progress Reports

- Preliminary results from instructionally embedded assessments are summarized in progress reports that are available on-demand during the testing window
- Report indicates standards (EEs) and levels for which assessments are planned, attempted, and mastered
 - Teachers can use for subsequent planning and instructional decision-making

Individual Student Progress Report



Name: First59845 Last59845
Subject: English Language Arts
Report Date: October 05, 2015

School: Blue River Elementary
District: Blue Valley SomethingLongName For Testing
State: Kansas

Year: 2015
Grade: Grade 5
ID: 59845

First59845's current performance in Grade 5 English Language Arts Essential Elements is summarized below. This information is based on all of the Dynamic Learning Maps tests taken between the beginning of the school year and October 05, 2015. The target level is the grade level expectation for students to have proficient understanding of and ability to apply the Essential Element.

This report does not show progress on all of First59845's instructional goals. First59845 may be taught other academic concepts that have not yet been tested. This report does not show progress on IEP goals.

Claim: ELA.C2		Conceptual Area: ELA.C2.1 - Use writing to communicate			
Grade Level Expectation	Level 1	Level 2	Level 3	Level 4	Level 5
ELA.EE.CW.5.T Conventional Writing				introduces topic and writes related information Assessed: 02/26	

Claim: ELA.C1		Conceptual Area: ELA.C1.2 - Construct understandings of text			
Grade Level Expectation	Level 1	Level 2	Level 3	Level 4	Level 5
ELA.EE.L.5.5.c Demonstrate understanding of words that have similar meanings.	identify familiar people, objects, places, events	identify descriptive words	identify words with opposite meanings	understand similar word meanings Planned	identification of similar meaning words
ELA.EE.RI.5.2 Identify the main idea of a text when it is not explicitly stated.	identify familiar people, objects, places, events	identify illustrations for familiar text	identify concrete detail in informational text	identify implicit main idea and supporting details Mastered: 02/25	identify implicit main idea and supporting details
ELA.EE.RL.5.2 Identify the central idea or theme of a story, drama or poem.	identify familiar people, objects, places, events	identify character actions	identify character's actions and the consequences	identify specific theme of a story and apt details Mastered: 02/25	identify specific theme of a story and apt details

Claim: ELA.C1		Conceptual Area: ELA.C1.1 - Determine critical elements of text			
Grade Level Expectation	Level 1	Level 2	Level 3	Level 4	Level 5
ELA.EE.RI.5.1 Identify words in the text to answer a question about explicit information.	can respond to yes/no questions	recognize simple details of familiar text	identify/answer questions about concrete details Attempted: 12/12	identify words related to explicit information Planned	use details to identify explicit information

= Target	= Mastered	= Attempted	= Assessed, no results available	= Planned
----------	------------	-------------	----------------------------------	-----------

TEACHER CHOICE WITHIN THE SYSTEM

Teacher Choices Within the System

1. When to administer testlets
2. Level of testlet assigned for each content standard
3. Which alternate content standards teachers tend to choose from among those available on the blueprints
4. Whether to assess the same student on the same standard more than once

2016-2017 Participation

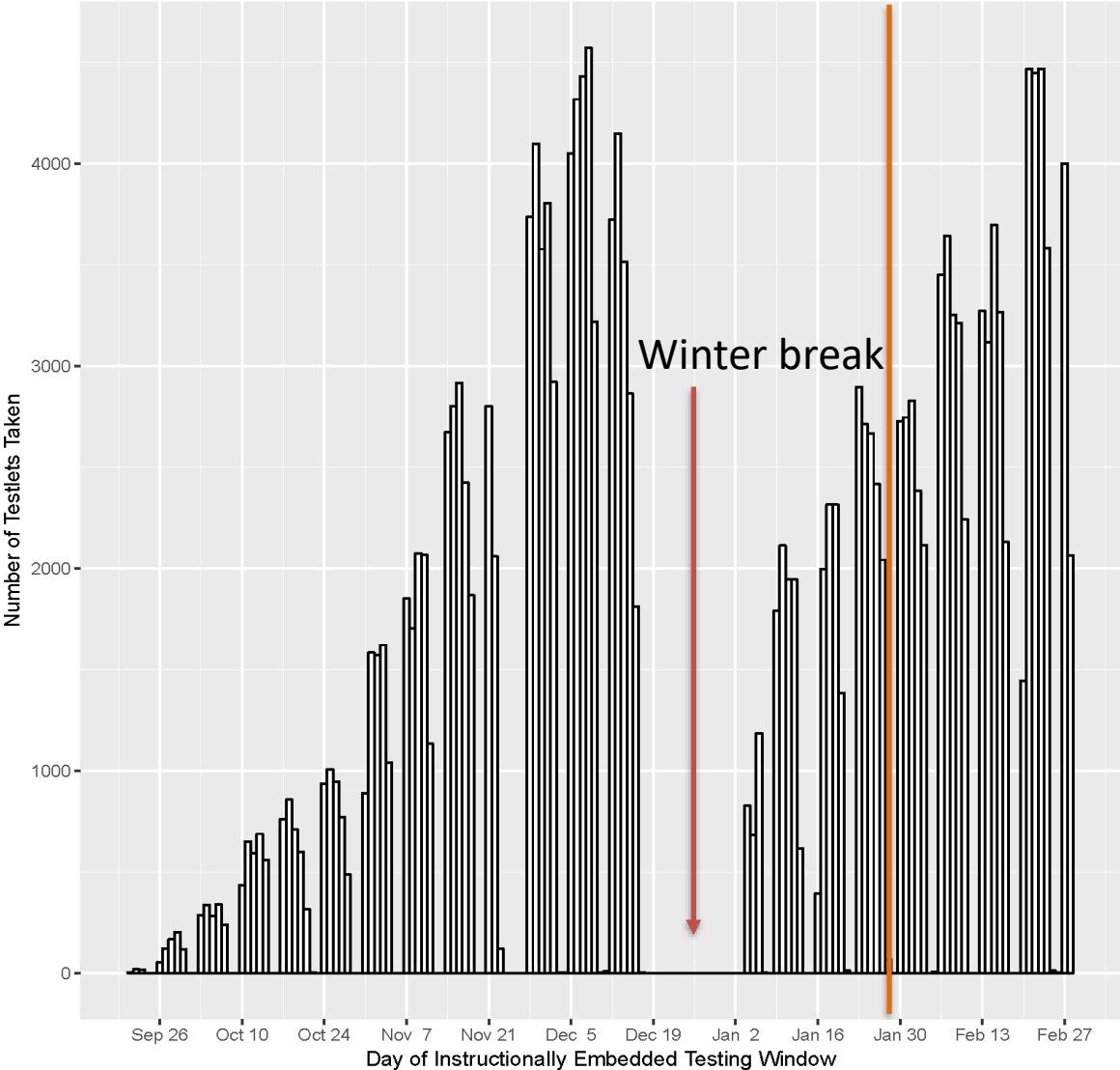
- 13,334 students with significant cognitive disabilities from 5 states
- 4,241 teachers created instructional plans and administered testlets
- Total of 201,348 testlets were administered during 2016-2017 instructionally embedded testing
- Optional teacher survey following spring 2017 administration

Testlet Administration During Window

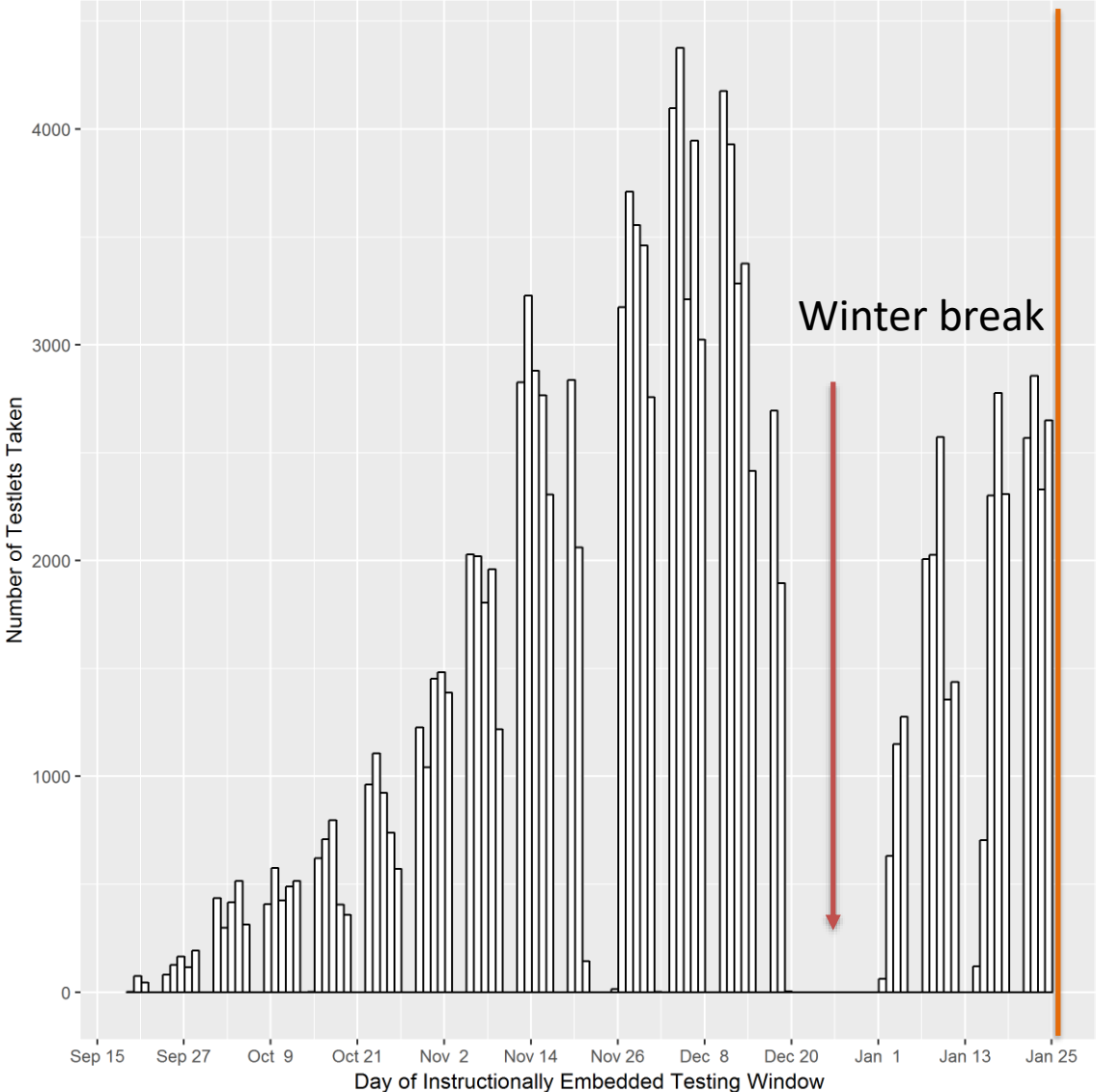
- The 2016-2017 instructionally embedded window was available from **September** through **February** for teachers to administer assessments covering the full blueprint
 - 2017-2018 open from September
- Teachers have choice of when and how frequently to assess their students within that time period to cover blueprint requirements and inform instruction

Number of Tests Administered by Week

2016-2017



2017-2018 (through Jan.)



Teacher Adjustment of Testlet Level

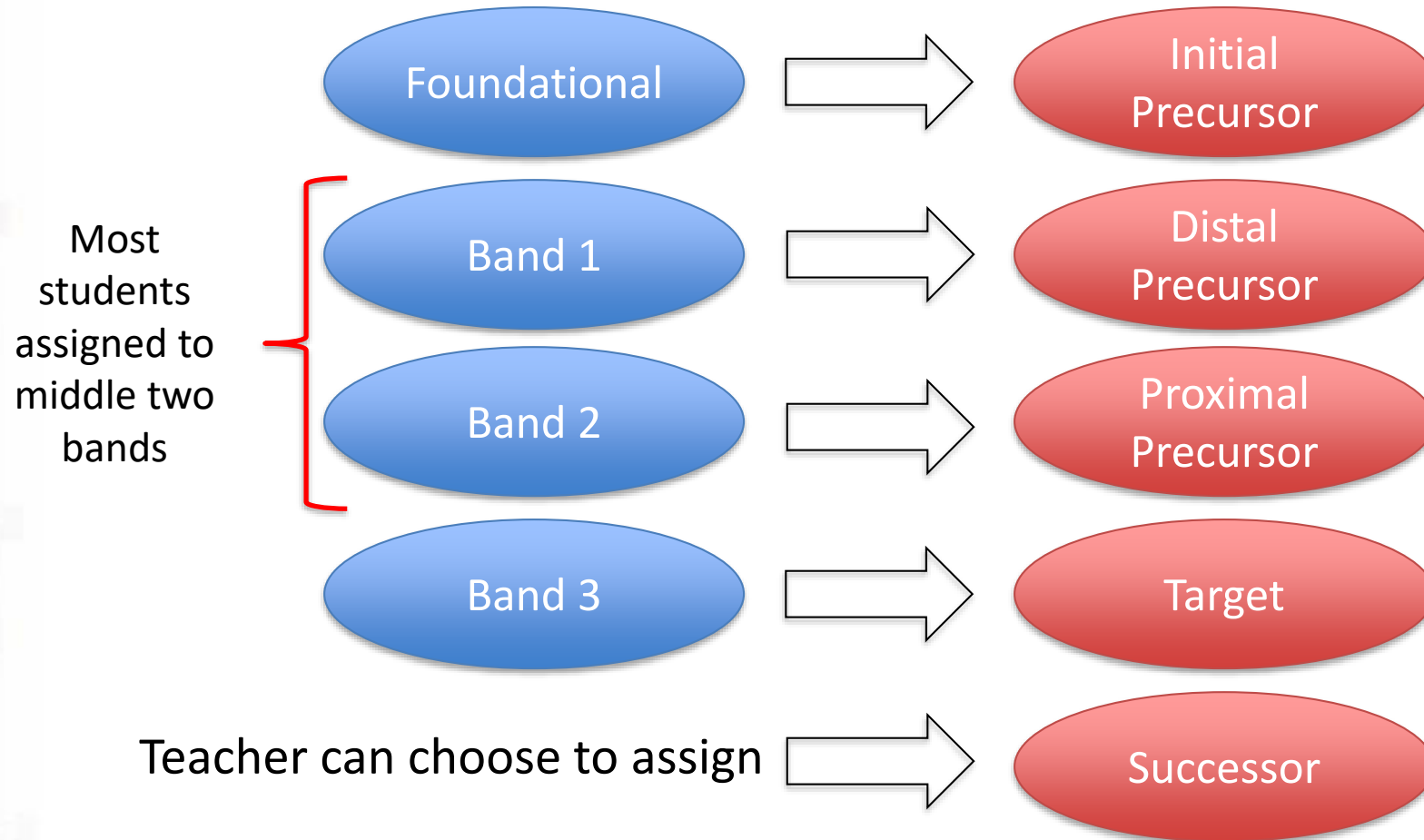
- Prior to testing, all teachers complete a survey about each student
- Responses to items in ELA, math, and expressive communication are used to calculate a complexity band for each content area
- Four total complexity bands:
 - Foundational, Band 1, Band 2, Band 3
 - Serves as loose heuristic for severity of disability

Student Complexity Band

Band	English Language Arts		Mathematics	
	<i>n</i>	%	<i>n</i>	%
Foundational	2,057	15.4	2,146	16.1
Band 1	4,649	34.9	4,958	37.2
Band 2	5,035	37.8	5,182	38.9
Band 3	1,586	11.9	1,041	7.8

Most students assigned to middle two bands

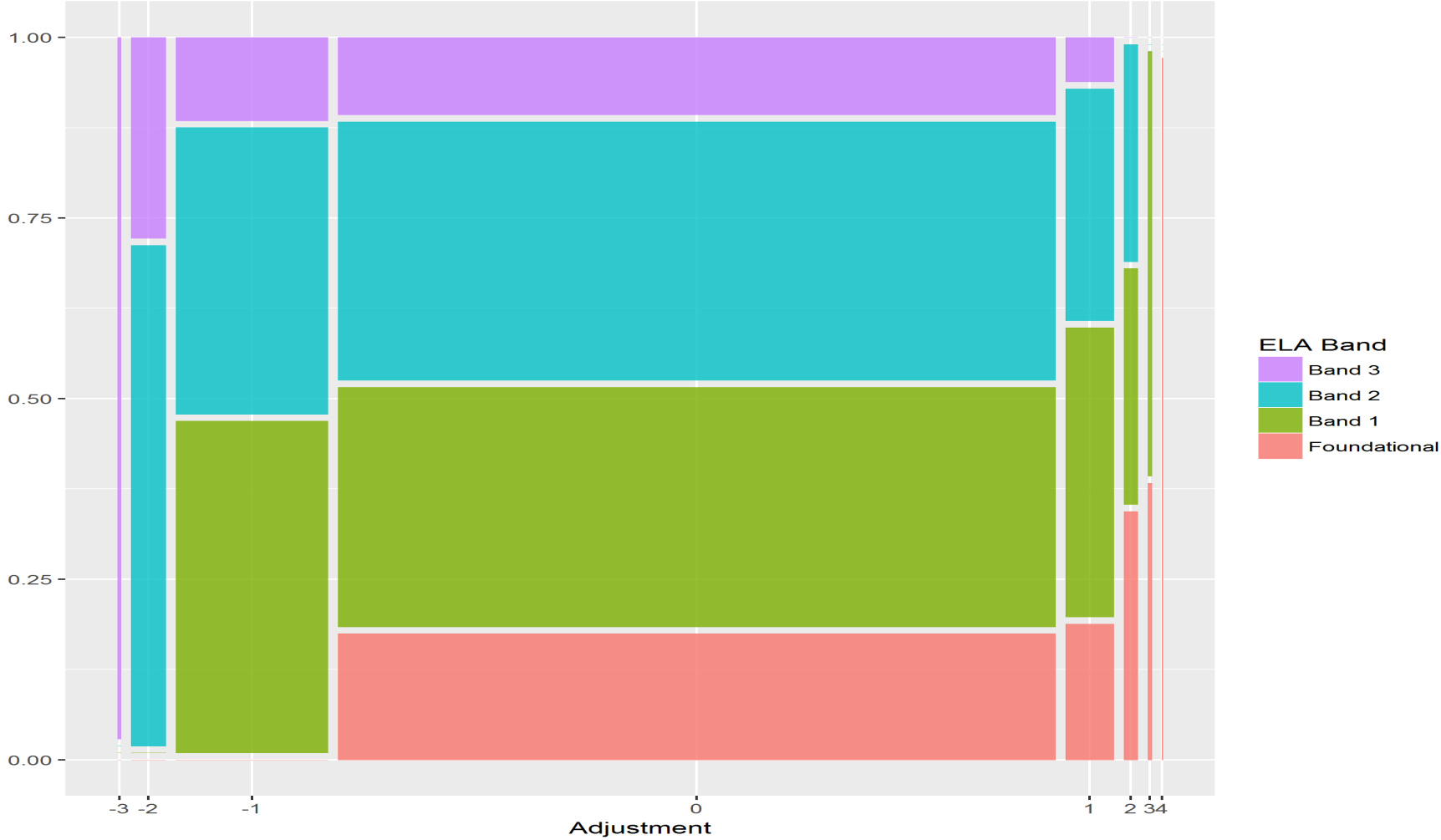
Correspondence of Complexity Bands to System-Recommended Linkage Level



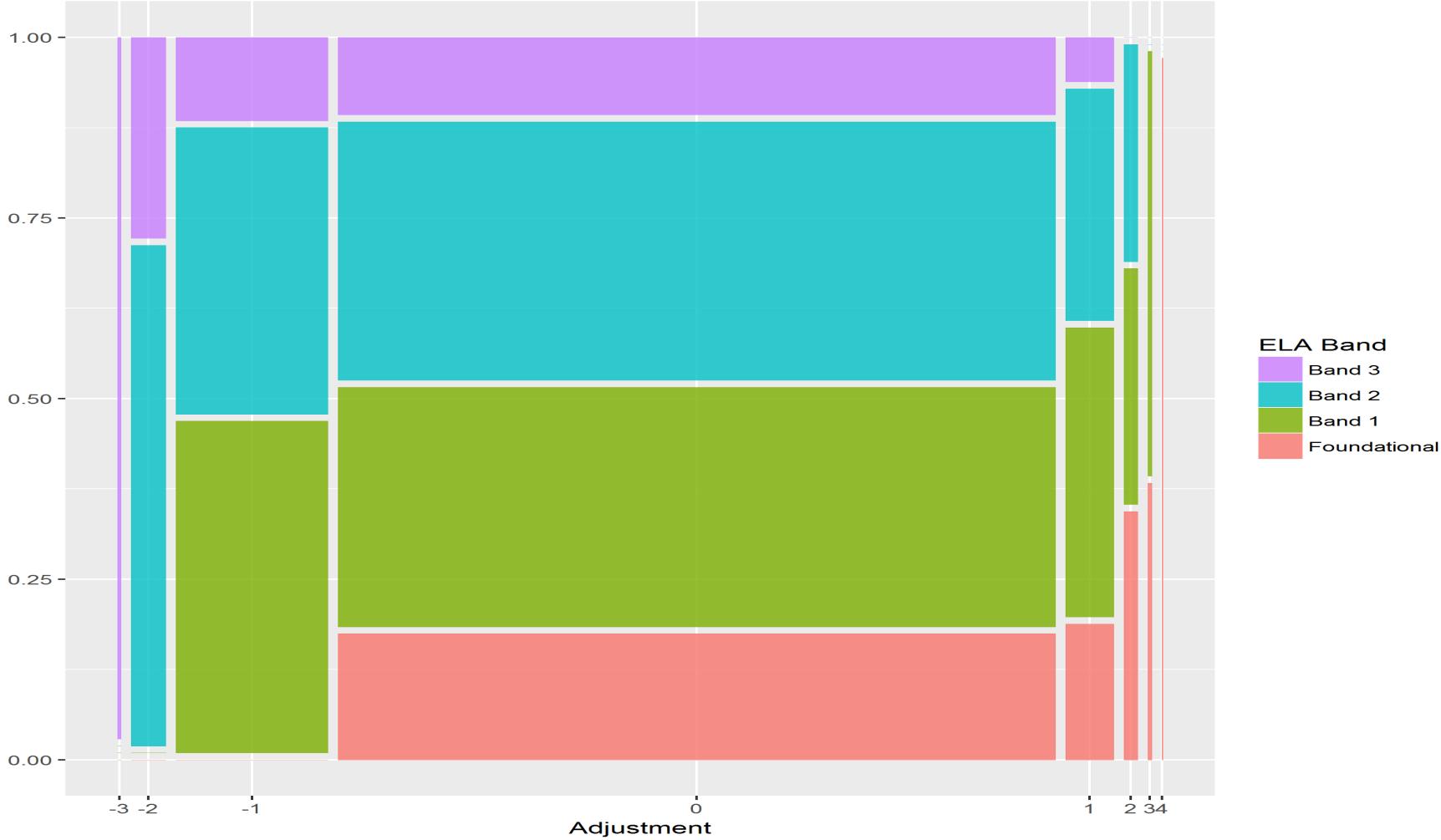
Testlet Level

- System recommends level based on the student's complexity band
- Teacher can choose to use recommendation or adjust the tested level when creating the instructional plan for each alternate content standard
- Teachers may choose to adjust for a number of reasons
 - e.g., additional evidence for specific standard, IEP goals

ELA Adjustment from System

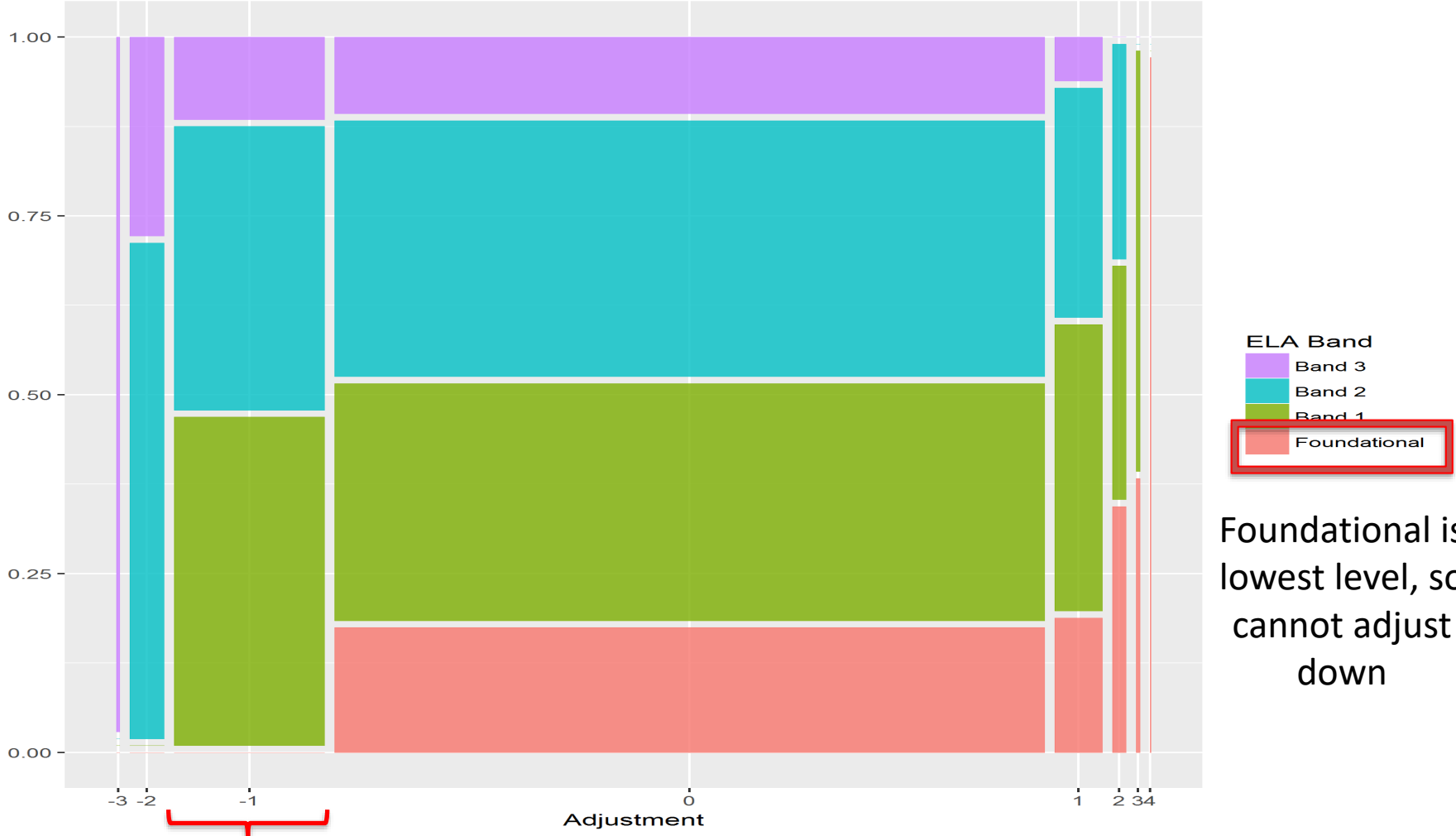


ELA Adjustment from System



For most testlets (75%), no adjustment made from recommended level

ELA Adjustment from System



Most common adjustment is down one level

Testlets Administered at Each Linkage Level

Linkage Level	<i>n</i>	%
Initial Precursor	49,502	24.6
Distal Precursor	68,533	34.0
Proximal Precursor	62,795	31.2
Target	18,876	9.4
Successor	1,642	0.8

Most testlets administered at lowest three levels

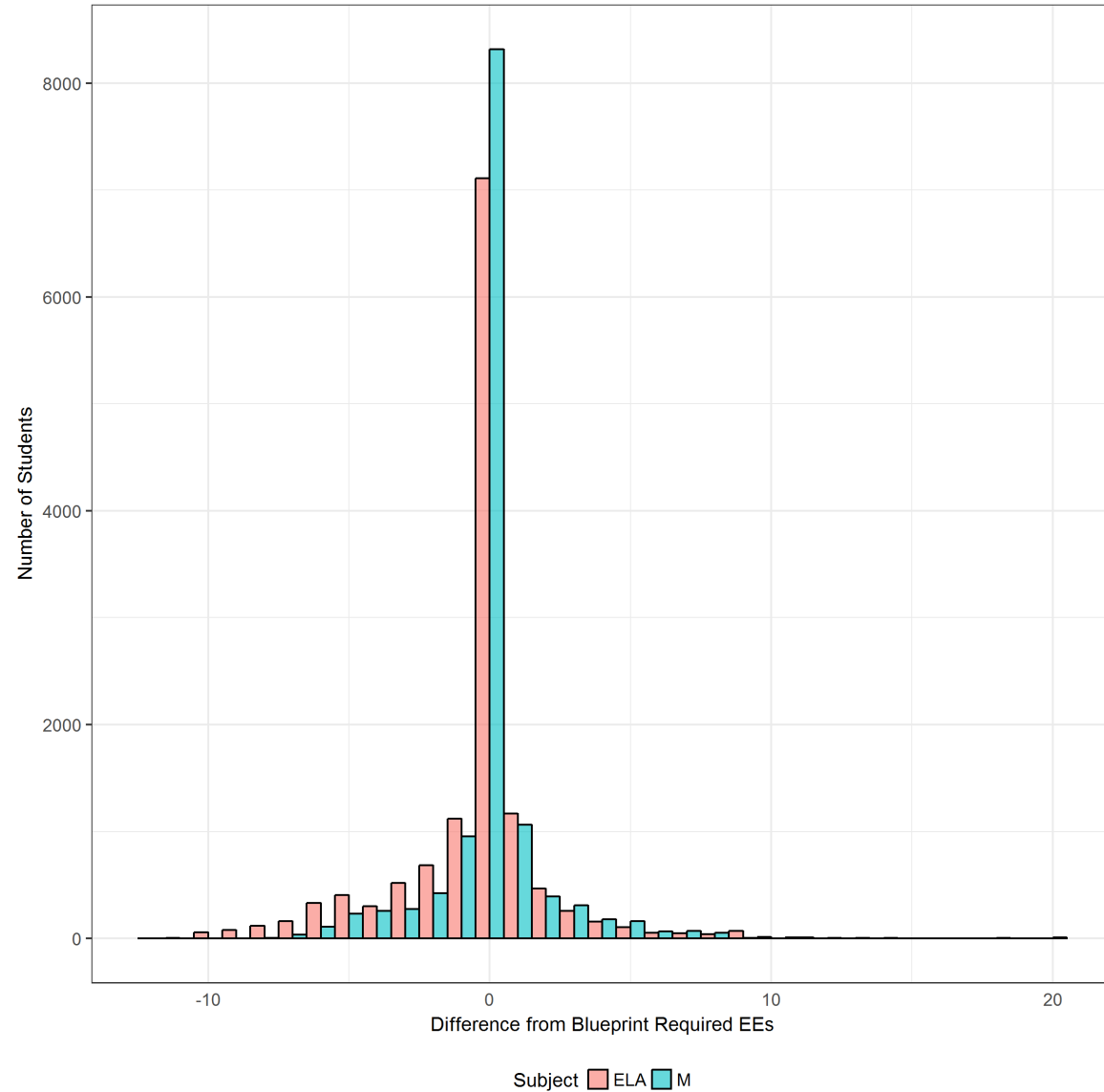
Teacher Flexibility in Content Selection

- Blueprint incorporates flexibility so that instruction and assessment occur in areas most relevant to the student's instructional plan and IEP goals
- Teachers make choices within requirements
 - e.g. Choose 3 EEs within Conceptual Area 1.1

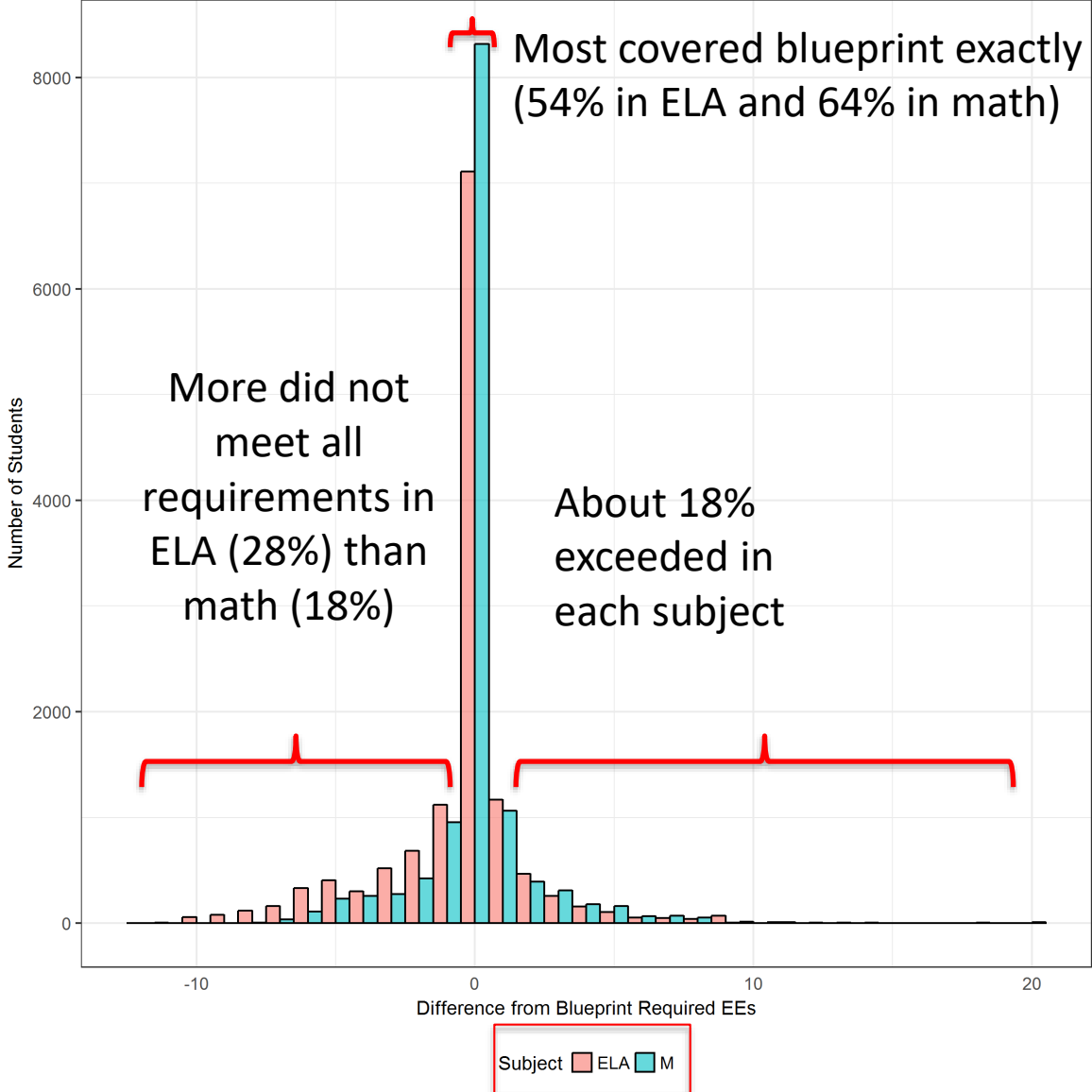
Blueprint Coverage

- Can evaluate extent student met exactly, exceeded, or did not meet number of required standards
 - May not meet due to external circumstances
 - e.g., extended absence
 - May exceed due to intentional instructional practice or not understanding the blueprint
- Implications for
 - fidelity of implementation
 - teacher professional development and resources

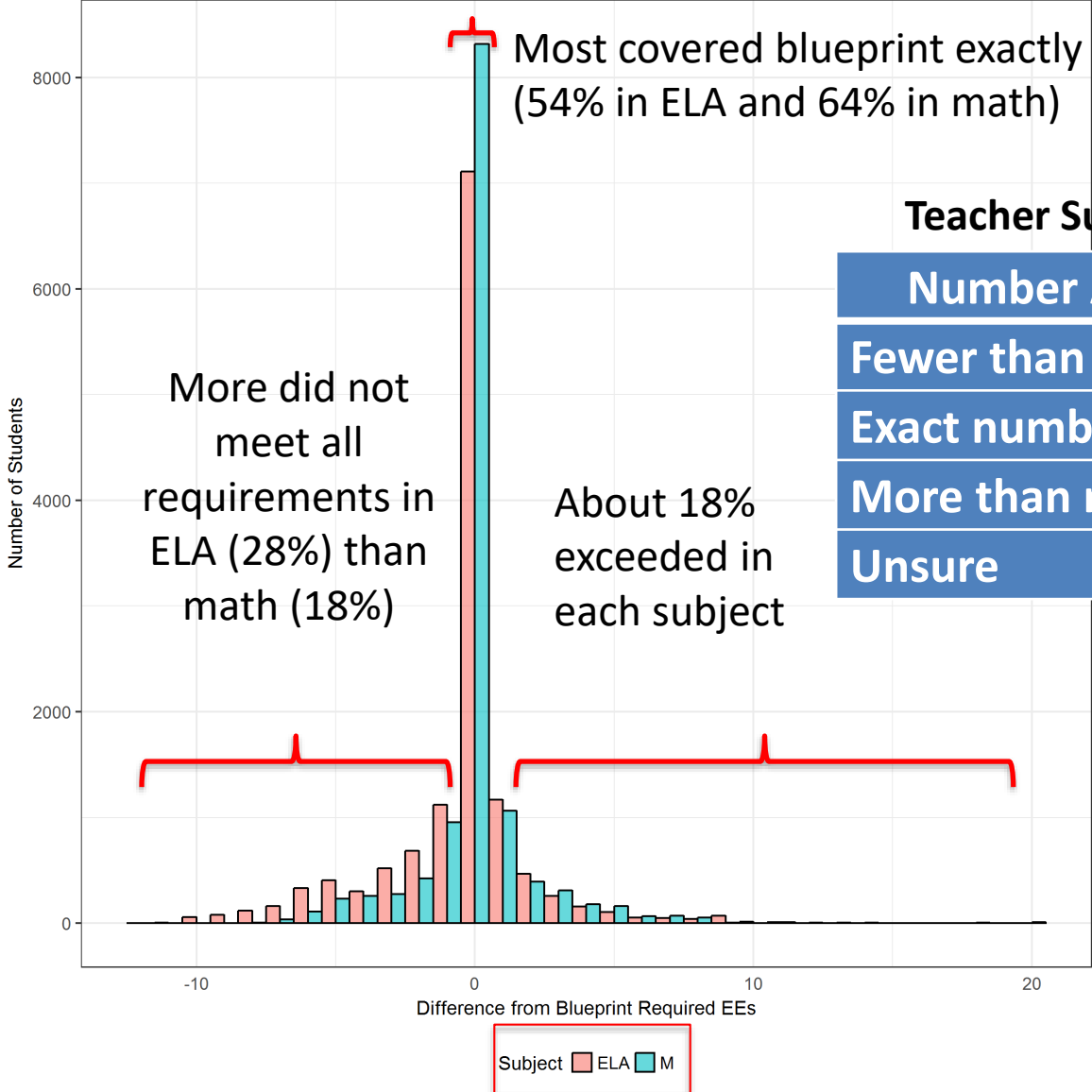
Blueprint Coverage



Blueprint Coverage



Blueprint Coverage



Factors Influencing Number of Standards Administered

Statement	n	%
Followed the directions on the printed blueprint	596	45.2
Meeting state or local requirements for testing	533	40.4
To assess what student knew across whole subject	255	19.3
To give student more opportunities to show his or her knowledge	241	18.3
Student had instructional goals beyond blueprint requirements.	225	17.1
To give student opportunities to practice taking tests	190	14.4
Student had many absences and/or health issues	55	4.2
Student asked to take more tests.	14	1.1

Factors Influencing Number of Standards Administered

Statement	n	%
Followed the directions on the printed blueprint	596	45.2
Meeting state or local requirements for testing	533	40.4
To assess what student knew across whole subject	255	19.3
To give student more opportunities to show his or her knowledge	241	18.3
Student had instructional goals beyond blueprint requirements.	225	17.1
To give student opportunities to practice taking tests	190	14.4
Student had many absences and/or health issues	55	4.2
Student asked to take more tests.	14	1.1

Since most students met requirements exactly, expected finding

Factors Influencing Number of Standards Administered

Statement	n	%
Followed the directions on the printed blueprint	596	45.2
Meeting state or local requirements for testing	533	40.4
To assess what student knew across whole subject	255	19.3
To give student more opportunities to show his or her knowledge	241	18.3
Student had instructional goals beyond blueprint requirements.	225	17.1
To give student opportunities to practice taking tests	190	14.4
Student had many absences and/or health issues	55	4.2
Student asked to take more tests.	14	1.1

Some indication for why teachers exceeded requirements

Factors Influencing Number of Standards Administered

Statement	n	%
Followed the directions on the printed blueprint	596	45.2
Meeting state or local requirements for testing	533	40.4
To assess what student knew across whole subject	255	19.3
To give student more opportunities to show his or her knowledge	241	18.3
Student had instructional goals beyond blueprint requirements.	225	17.1
To give student opportunities to practice taking tests	190	14.4
Student had many absences and/or health issues	55	4.2
Student asked to take more tests.	14	1.1

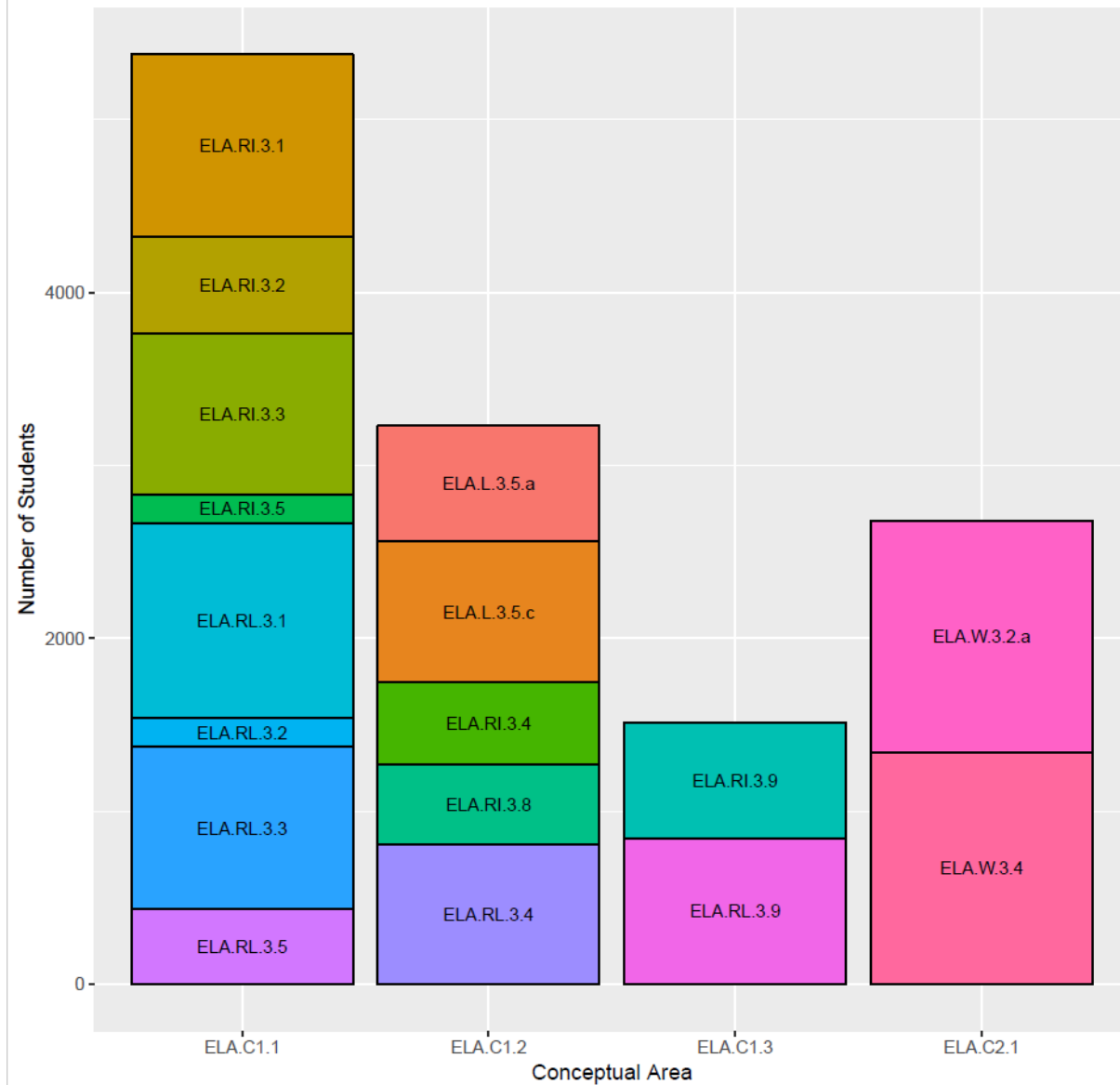
Not an intended use, may need to provide additional direction

Teacher Flexibility in Content Selection

- Also interested in which standards teachers actually choose to instruct and assess
- Some standards may be commonly chosen while others may rarely be chosen
 - Implications for students' opportunity to learn and teacher resources for supporting instruction (e.g., in instances where teachers may need additional support)

Grade 3 ELA Example

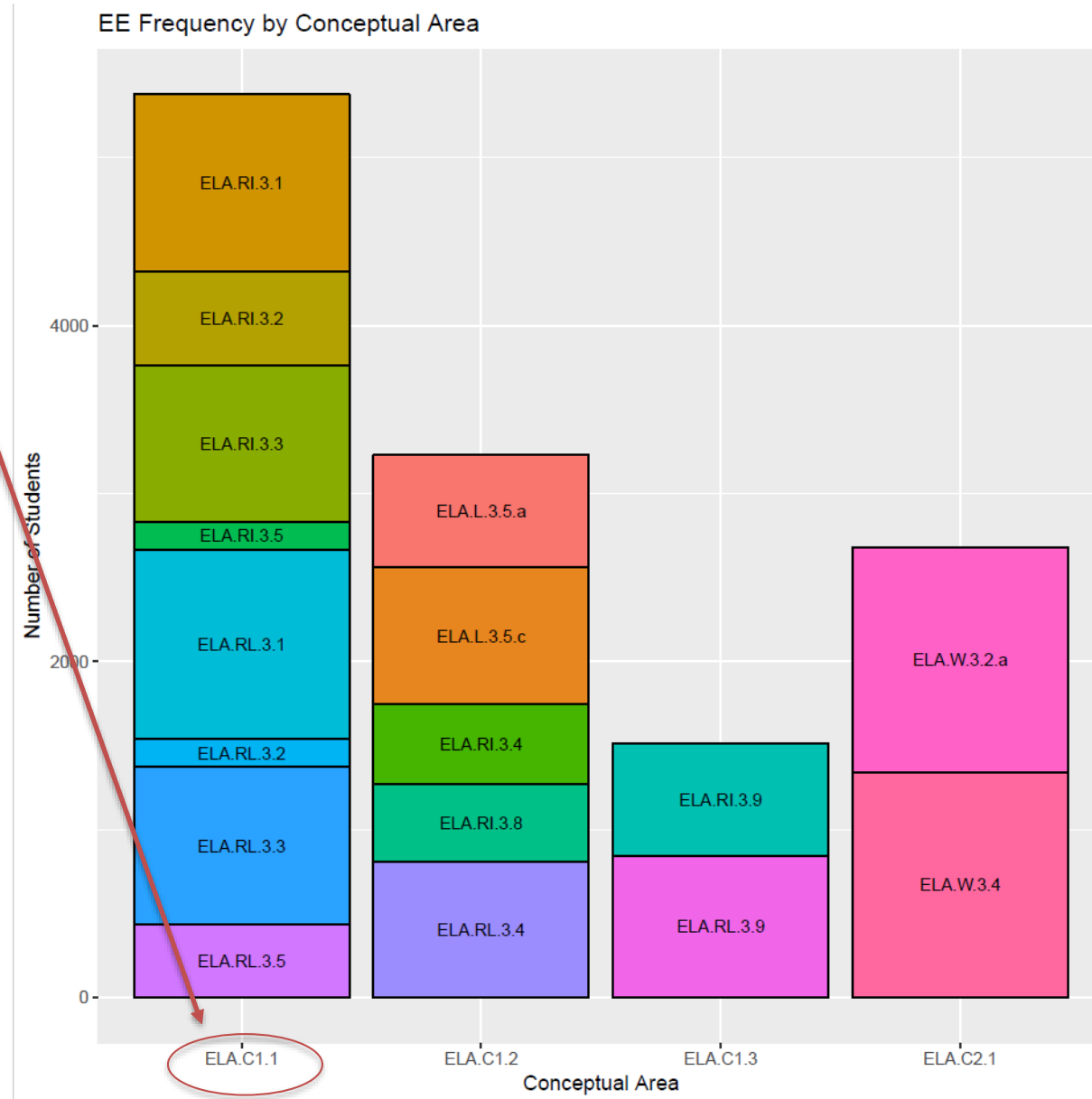
EE Frequency by Conceptual Area



Grade 3 ELA Example

C1.1 - Determine critical elements of text

Criterion: Choose ≥ 3 EEs, including at least one RL and one RI.



Grade 3 ELA Example

C1.1 - Determine critical elements of text

Criterion: Choose ≥ 3 EEs, including at least one RL and one RI.

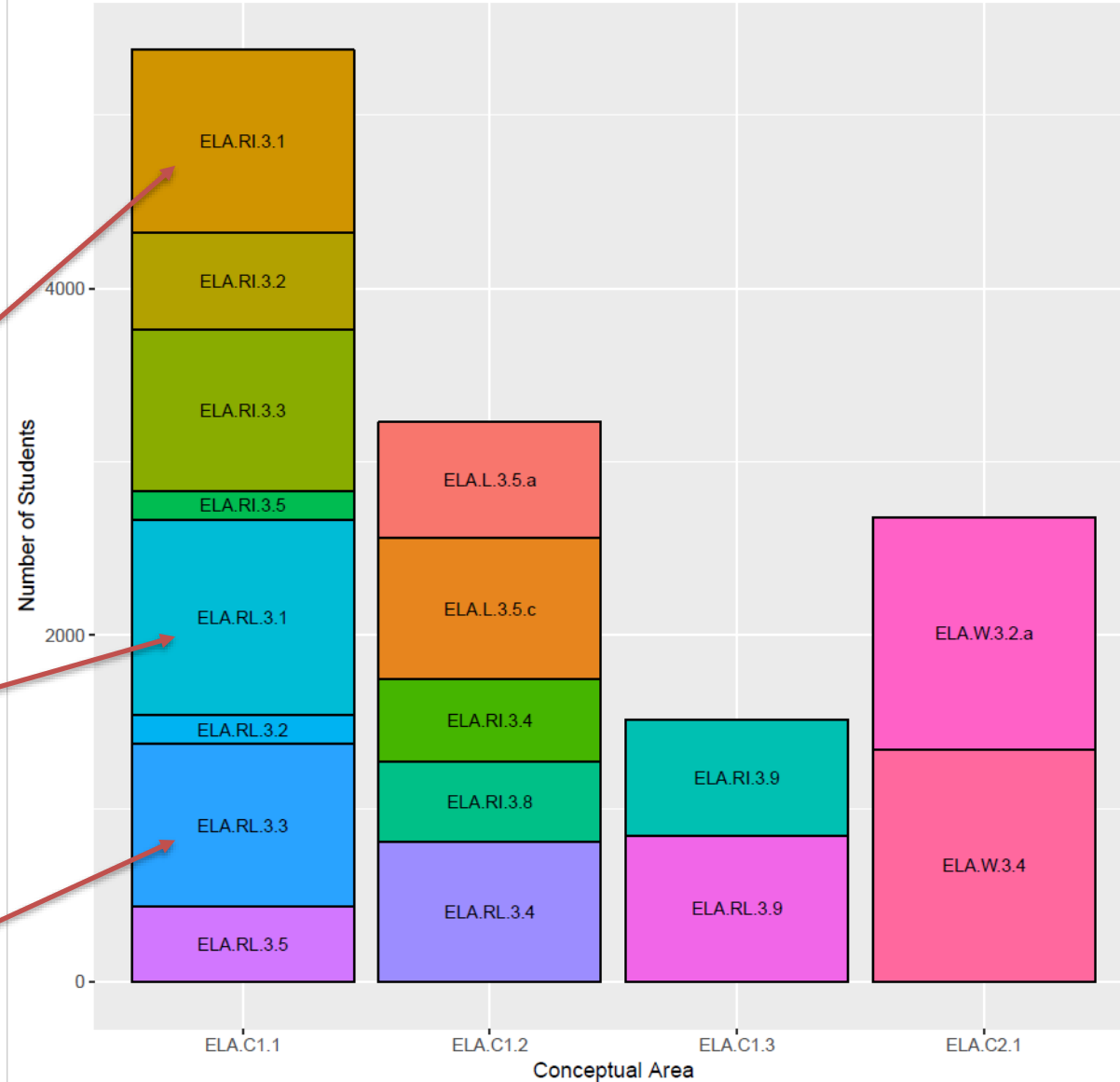
Most Common:

RI.3.1 - Answer **who** and **what** questions to demonstrate understanding of details in a text.

RL.3.1 - Answer **who** and **what** questions to demonstrate understanding of details in a story.

RL.3.3 - Identify the **feelings** of characters in a story.

EE Frequency by Conceptual Area



Grade 3 ELA Example

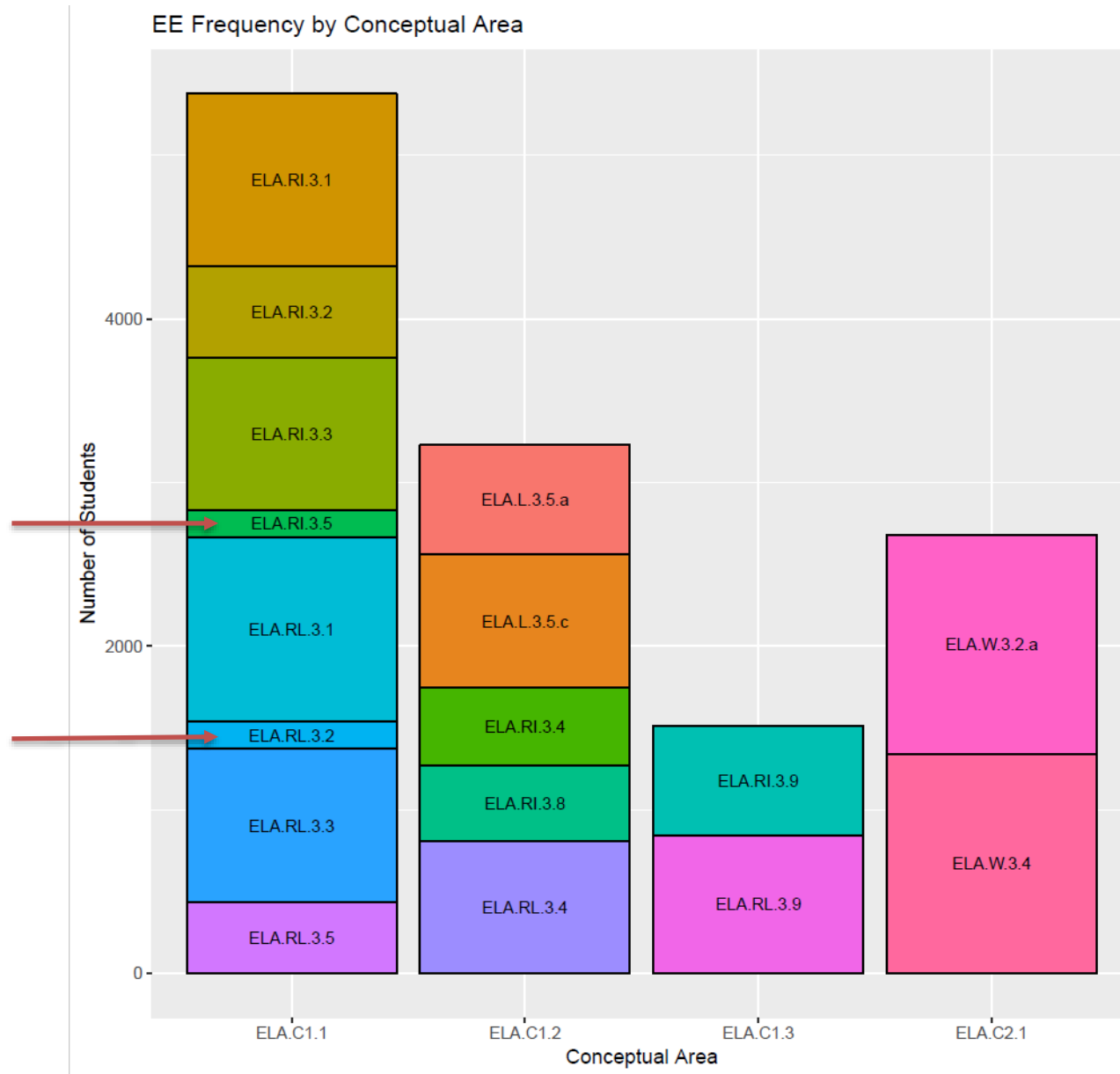
C1.1 - Determine critical elements of text

Criterion: Choose ≥ 3 EEs, including at least one RL and one RI.

Least Common:

RI.3.5 - With guidance and support, use text features including headings and key words to **locate information** in a text.

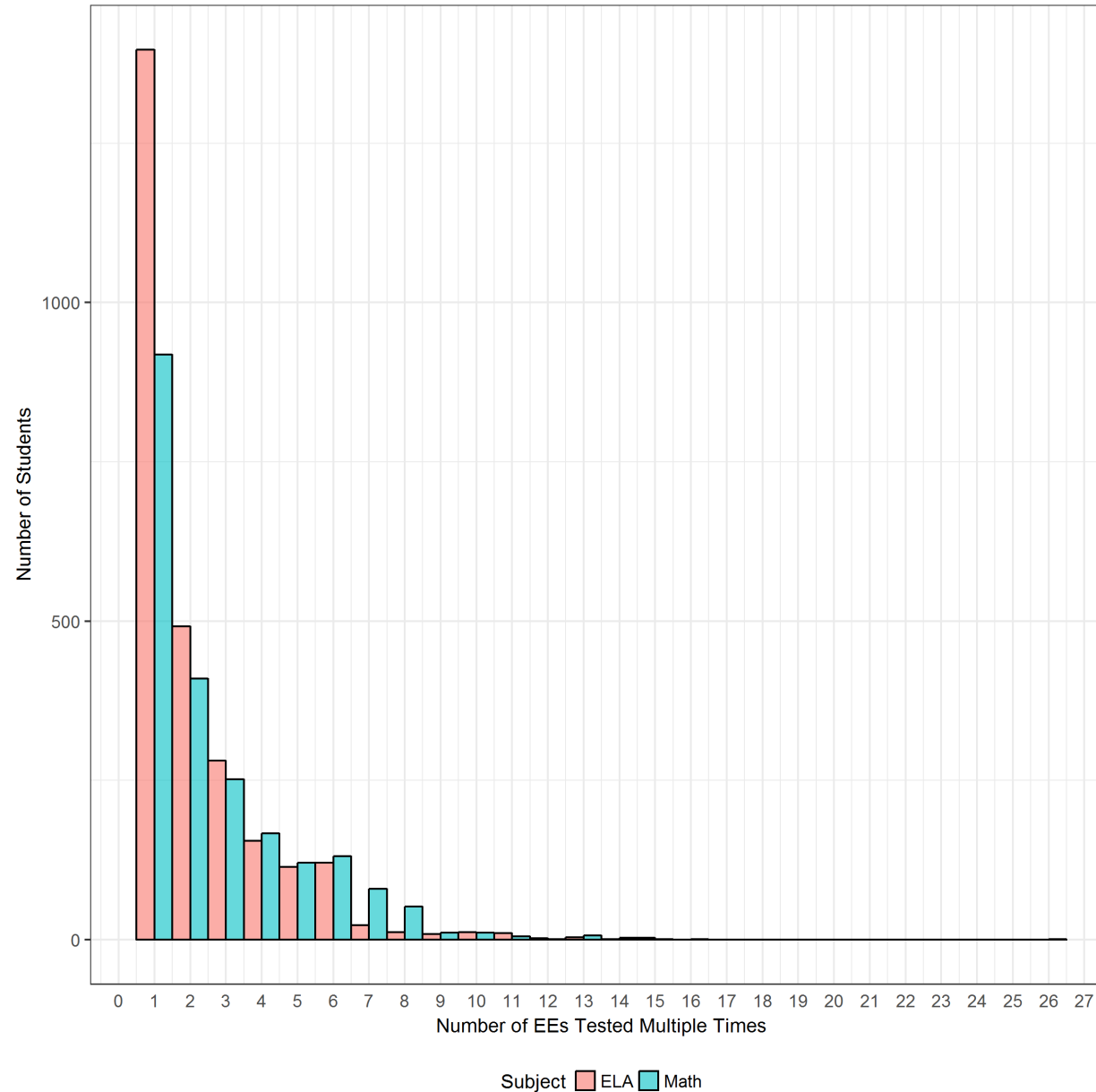
RL.3.2 - **Identify details** in a story.



Testing Same Standard Multiple Times

- As instruction occurs, teachers can choose to create additional instructional plans to re-assess the content standard
 - Can be at same linkage level or a different linkage level
- Gets at idea of depth of instruction (versus breadth)

Given that a particular EE was tested on more than once, 90% of students tested on it twice.
Most students tested on only one EE more than once.



Testing on Multiple Linkage Levels in a Standard

- About 20% of students tested on more than one linkage level within a single content standard
- Of students who assessed the same standard at more than one linkage level, most assessed at two different linkage levels
 - However, in 23 instances across all students and standards (0.01%), the students tested on all five linkage levels within the standard
 - Likely an indication of a need for clarification on intended use of system

Frequency of Level Assessed More Than Once Across All Students and Standards

2.5% of the time, student tested on the same linkage level for the standard more than once

(e.g., teacher may have provided additional instruction and re-assessed with different testlet)

Linkage Level	<i>n</i>	%
Initial Precursor	1,182	23.5
Distal Precursor	1,641	32.6
Proximal Precursor	1,569	31.2
Target	633	12.6
Successor	7	0.1

Teacher Responses for Same Standard Multiple Times

Statement	n	%
Meeting state or local requirements for testing (separate from DLM)	340	92.6
To see if additional instruction on skill was effective	207	56.4
Tested once to establish a baseline and again after instruction	170	46.3
To give student more opportunities to show his or her knowledge	169	46.0
Student needed more practice in a given skill	125	34.1
To give student opportunities to practice taking tests	115	31.3
To show student's growth due to improvement after testing	80	21.8
First testlet did not match student's skills so a new linkage level was selected	71	19.3
Student asked to take more tests	11	3.0

Teacher Responses for Same Standard Multiple Times

Statement	n	%
Meeting state or local requirements for testing (separate from DLM)	340	92.6
To see if additional instruction on skill was effective	207	56.4
Tested once to establish a baseline and again after instruction	170	46.3
To give student more opportunities to show his or her knowledge	169	46.0
Student needed more practice in a given skill.	125	34.1
To give student opportunities to practice taking tests	115	31.3
To show student's growth due to improvement after testing	80	21.8
First testlet did not match student's skills so a new linkage level was selected	71	19.3
Student asked to take more tests	11	3.0

Expected uses of the system

Teacher Responses for Same Standard Multiple Times

Statement	n	%
Meeting state or local requirements for testing (separate from DLM)	340	92.6
To see if additional instruction on skill was effective	207	56.4
Tested once to establish a baseline and again after instruction	170	46.3
To give student more opportunities to show his or her knowledge	169	46.0
Student needed more practice in a given skill	125	34.1
To give student opportunities to practice taking tests	115	31.3
To show student's growth due to improvement after testing	80	21.8
First testlet did not match student's skills so a new linkage level was selected	71	19.3
Student asked to take more tests	11	3.0

Unintended uses of the system

DISCUSSION

Summary of Results

- Most students meet minimum expectation for content coverage
- Teachers generally do not override system recommendations
 - System appears to assign testlets at the level that balances challenge and access
- Testing >1 time, or broader than minimum requirement, does not occur that often
 - Teachers may still use system to meet testing requirements (legislative mandate) rather than to inform instruction

Implications for Fidelity

- Expectation for some minimum threshold of use (e.g., full blueprint coverage)
- To fulfill goal of informing instruction, ranges of actions are possible
 - Retesting on a standard, if time lapse between tests and instruction occurred
 - Testing fewer testlets in more weeks vs. in shorter, focused time blocks - may also be guided by state policies
- What actions are outside the likely bounds of useful assessment?
 - E.g., test on all standards and levels in a short time period

Supports for Teachers Using IEAs

Using IEAs

- Required training
- Two videos
- State-developed guidance (e.g., pacing, which standards to assess when, feedback to districts with unusual patterns) with input from advisory team
- PLC time

Instruction aligned to the standards

- DLM PD modules
- Related resources
 - E.g., core vocabulary, IP/DP descriptions
- State-created resources (e.g., blueprint monitoring forms)
- Facebook page
- Instructional information after each plan is created
 - Current vs future

Supporting Teachers: Potential Next Steps

- Tailoring resources to teacher's implementation patterns
 - What IEAs are (and are not)
 - How IEAs fit with other ways of assessing
 - How to know when to test
 - Assessing within a cycle
 - Instruction to support conceptual development, not discrete skills
- Instructional activities in science
 - Applying lessons learned to ELA and math

Research: Next Steps

- Is there a relationship between use of the instructionally embedded assessment system and students' summative assessment results?
- Teacher survey - feedback on choices made during instructionally embedded assessment, how progress reports were used to inform instruction
- Defining a measure of implementation fidelity
- Looking at within-student and within-teacher experience for testlet administration

Questions?

THANK YOU!

For more information, please visit
dynamiclearningmaps.org