ELM Governance and Advisory Meeting

September 11, 2018

Welcome and Introductions

8:30 a.m.

Dr. Marianne Perie, co-Principal Investigator

Organization for Today

- ✓Review the activity and accomplishments of the development phase
- ✓Discuss the implementation evaluation
- ✓Provide information about software development and current project status
- ✓Present and discuss research plans

Accomplishments from the project development phase (2016 – 2018)

Unit Development

- Unit Contents
- Learning Map Tool
- Teacher Notes
- Instructional Activities
  - Guiding Questions/ Checking for Understanding Questions
- Student Activity/ Handouts
- Passages
- Solution Guide/ Student Feedback Guide

Unit Development

Mathematics

- All units are published
  - 7 units in grades 4 and 6
  - 6 units in all other grades

English Language Arts

- 2 units left to be published
  - RI.7.4 & RL.8.4
  - Figurative, connotative, & technical meanings
  - Will be published this month

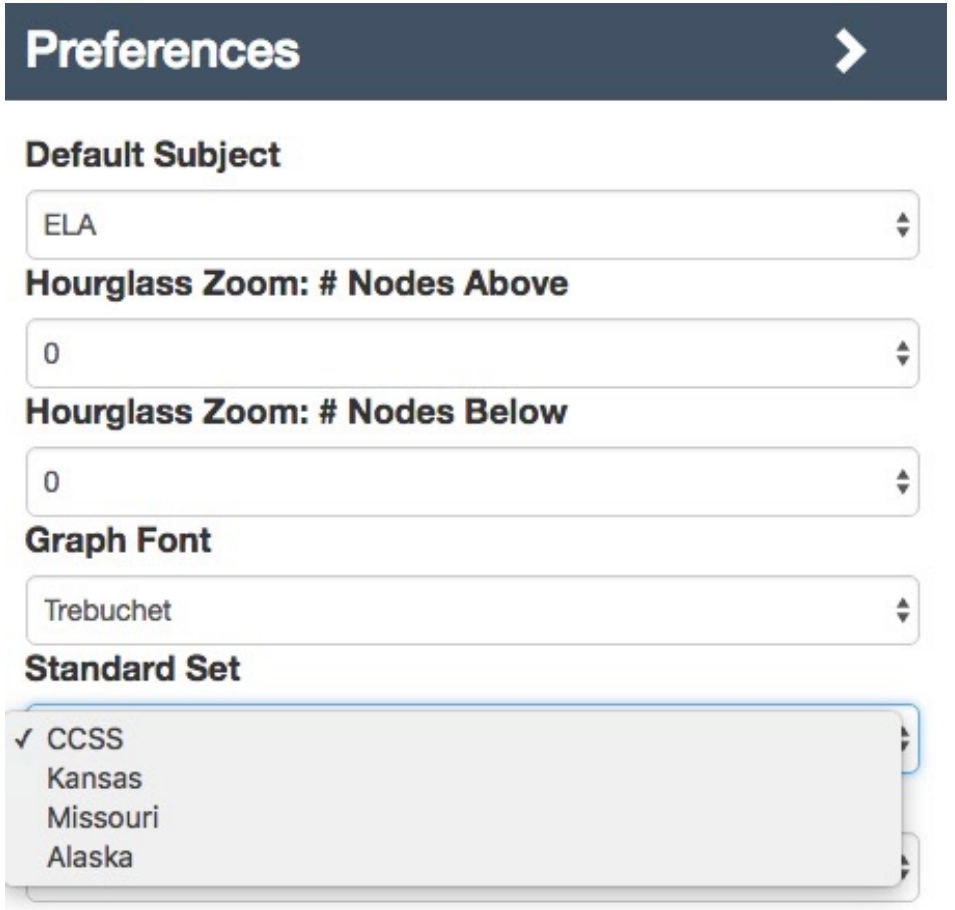
Unit Feedback

- Surveys Completed:
  - 2016-2017 – 113
  - 2017-2018 – 67
  - 2018-2019…
- Units Edited
  - Math- 22 units
  - ELA- 9 units

- Feedback:
  - Passages
  - Changes to lesson pace
  - Focus of lesson
  - Add graphics

Standards crosswalks

- Kansas
  - ELA- all grade 2-8 complete
  - Math- grade 2-8 units with resources complete
- Missouri
  - ELA- grade 2-8 units with resources complete
  - Math- all grade 2-8 complete
- Alaska



Teacher use of software/resources

	Fall 2017*	Spring 2018†
Total number of visits to ELM software	1. 30 2. 65	1. 31 2. 73 3. 159
Number of unique visitors to ELM software	1. 15 2. 38	1. 18 2. 37 3. 118
Average number of actions per unique visitor	1. 324 2. 131	1. 261 2. 233 3. 325

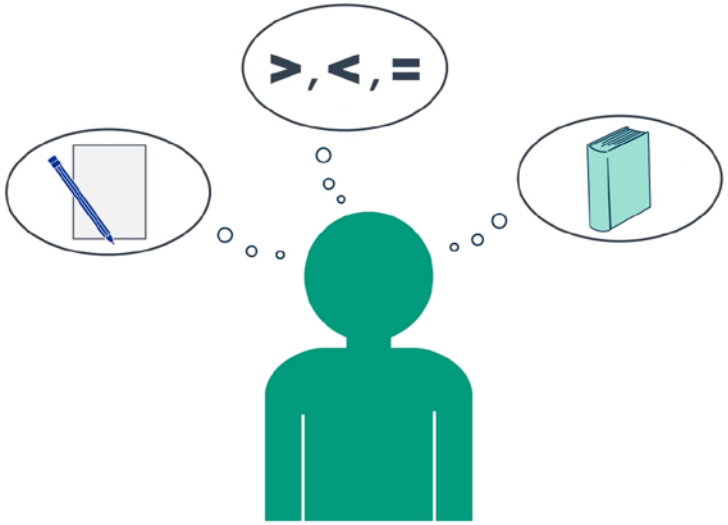
* Fall statistics include October, November, & December, and include only Cohort 1 and Cohort 2 teachers

† Spring statistics include January, February, and April, and include Cohort 1, Cohort 2, and Alaskan Cohort 3 teachers

Video support development

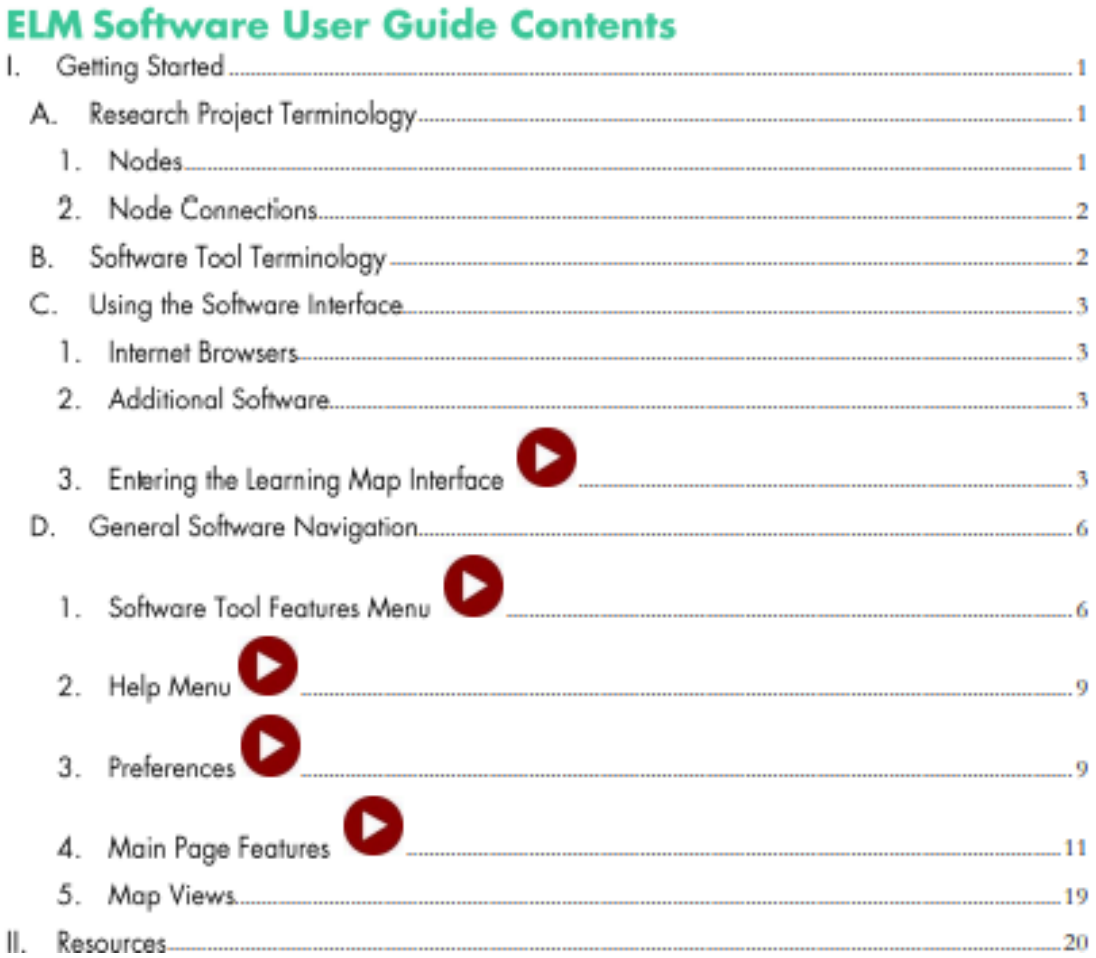
- Teacher Notes
  - Designed to supplement ELM instructional units
  - Math – 7 total (1 per grade level)
  - ELA – 7 total (1 per grade level)

- General
  - Webinars
  - Teacher Trainings
  - Promotional video



Video support development

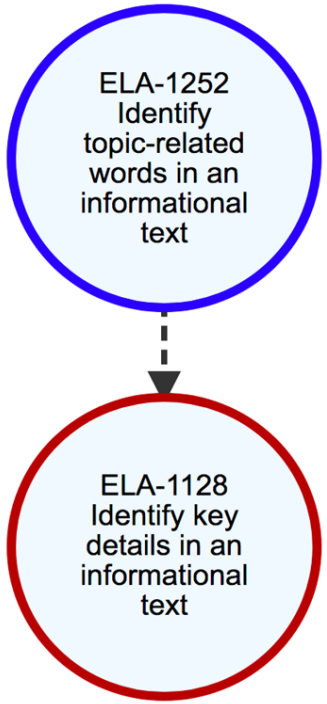
- Software Help
  - Over 25 videos available
  - Located in the software User Guide under HELP



ELM Software User Guide Contents

Student Locater Tool

Item Level Node Connections



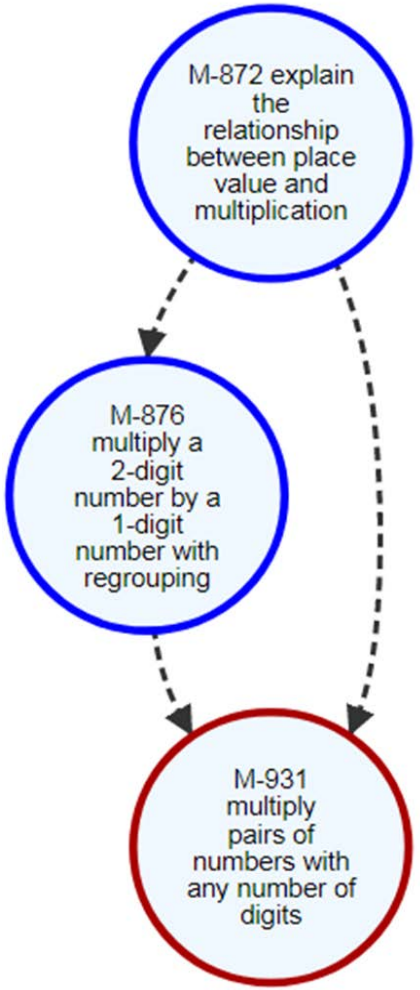
Which sentence about making apple cider is true based on the text?

A. Making apple cider uses machines. (**Correct** – ELA1128)

B. Making apple cider takes many workers. (Incorrect – ELA 1252)

C. Making apple cider can be done quickly. (Incorrect – ELA 1252)

D. Making apple cider is fun to do. (Incorrect – ELA 1252)



What is 108 X 54?

A. 81 (Incorrect M-872)

B. 972 (Incorrect M-872)

C. 5,402 (Incorrect M-876)

D. 5,832 (**Correct** M-931)

Locater tool

- Features:
  - Teacher Reports
  - Test Taker page for students
- Use of data:
  - Each answer choice is connected to a node from the ELM Map View and the precursor skills and concepts that lead into the targeted skill or concept
  - Teachers will use data to inform instruction
  - ELM will use data to validate the learning progressions expressed in the learning map model

ENHANCED LEARNING MAPS
INSIGHTS FOR INSTRUCTION

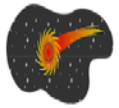
If you do not know your username or password, ask your teacher!

Username

Password

Start

Username Word Bank

 acorn	 apple	 bee	 bird	 boat	 book
 bus	 candy	 car	 cave	 clock	 coin
 comet	 earth	 fence	 fish	 fox	 frog
 horse	 key	 kite	 lake	 lamp	 moose
 phone	 road	 rock	 sand	 snow	 sun
					

Sample Reports

RI.2.6 Post-test (Woods of Net in Japan)

Student	Date Finished	Outcome	1	2	3	4	5	6	7	8a	8b	9	10
Bee Book Tulip	Thu Sep 14 12 am	2 / 11	C	B	D	B	✓	C	A	B	✓	A	B
Bee Bus Frog	Thu Sep 14 12 am	3 / 11	C	B	✓	A	C	A	C	B	✓	A	✓
Bird Fox Tulip	Thu Sep 14 12 am	5 / 11	✓	A	A	✓	D	A	✓	✓	C	B	✓
Book Clock Tulip	Thu Sep 14 12 am	2 / 11	C	A	D	✓	B	A	A	C	✓	B	B
% correct			25%	0%	25%	50%	25%	0%	25%	25%	75%	0%	50%
Most common incorrect response(s)			C	A, B	D	A, B	B, C	A	A	B	C	A, B	B
Node(s) for common incorrect			C: 1461	A: 800 B: 800	D: 793 794	A: 2529 B: 2529	B: 2529 C: 2529	A: 1136	A: 2911	B: 794	C: 2368	A: 793 794 B: 793 794	B: 793 794

Multiply Multi-Digit Whole Numbers (A)

1. ✗ Which is an appropriate step when multiplying 9 × 43,287?

Answer	Node Information	Student Choice	Correct Answer
A. 9 × 3			
B. 9 × 30	explain place value for thousands and beyond	✓	
C. 9 × 300			
D. 9 × 3,000	explain the relationship between place value and multiplication		✓

Item Summary Report

Implementation evaluation

Enhanced Learning Maps Project Evaluation Year 3

Governance Meeting – September 11, 2018

McREL INTERNATIONAL

Helping students, educators, and leaders flourish

Guskey's Model of Evaluating Professional Development Implementation and Impact

Level 1	Participants' Reactions
Level 2	Participants' Learning
Level 3	Organizational Support and Change
Level 4	Participants' Use of New Knowledge and Skills
Level 5	Student Learning Outcomes

Reflection Questions

- What findings surprised you?
- What are the implications of the findings?
- What conclusions might you draw from the findings?

Description of State Training Participants – Evaluation Survey

State	Training Date	Number Attending Training	Number Completing Survey	Response Rate
Alaska	Jan 2018	109	79	73%
Kansas	July 2018	129	107	83%
Missouri	Jun 2018	16	16	100%
Wisconsin	Jun 2018	27	27	100%
Total		281	229	82%

Description of State Training Participants – Evaluation Survey

State	Cohort		
	1	2	3
Alaska	3%	13%	82%
Kansas	<1%	8%	88%
Missouri	6%	19%	69%
Wisconsin	15%	15%	67%
Total	3%	11%	82%

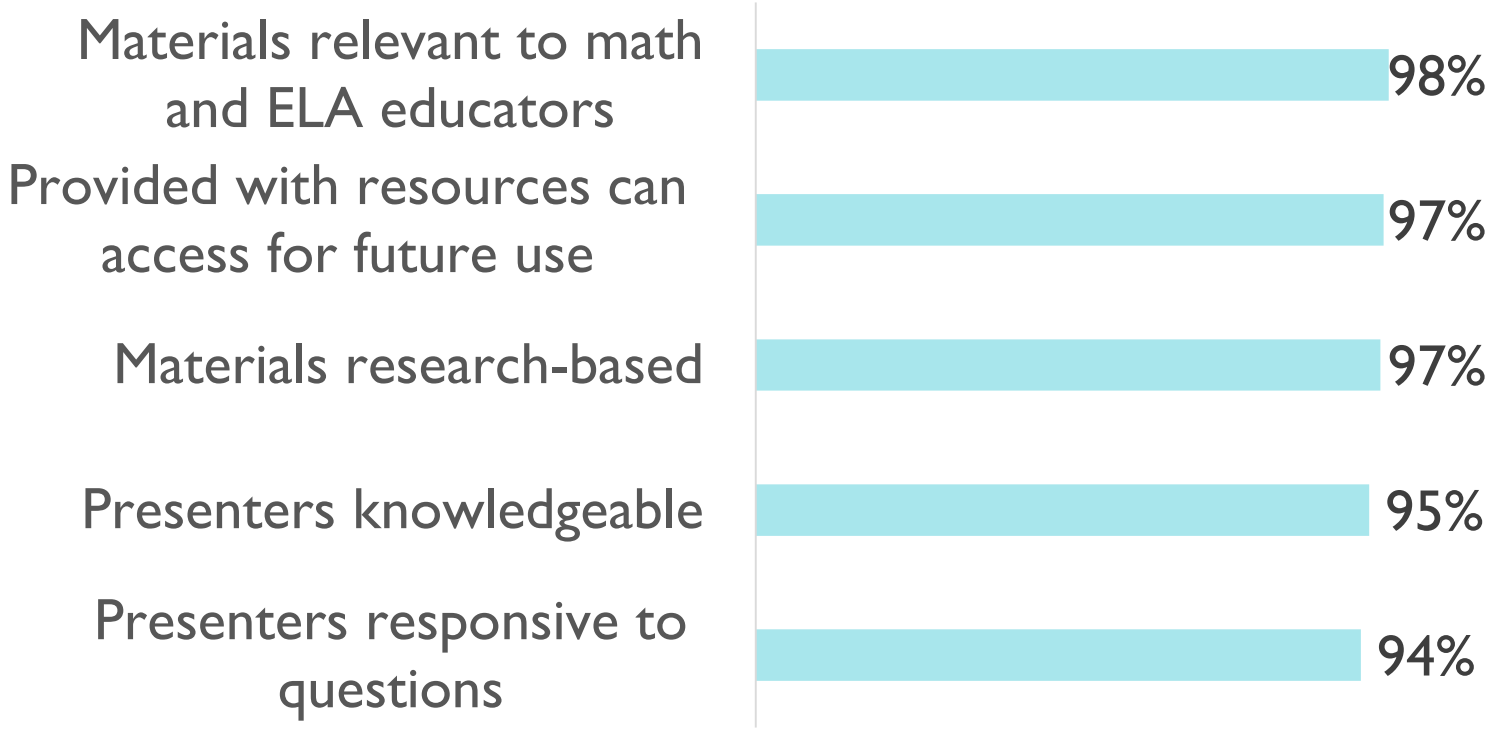
Description of State Training Participants – Evaluation Survey

State	Content Focus		
	ELA	Math	Both
Alaska	37%	51%	5%
Kansas	30%	51%	7%
Missouri	38%	44%	13%
Wisconsin	15%	59%	15%
Total	31%	52%	7%

Description of State Training Participants – Evaluation Survey

State	Role Type		
	Teacher	Admin	Other
Alaska	73%	8%	19%
Kansas	93%	3%	<1%
Missouri	88%	6%	--
Wisconsin	96%	--	--
Total	82%	4%	7%

Level 1. Participants' Reactions to State Trainings



Participants' Reactions to State Trainings
Most helpful aspects …

Process of going over the maps

I liked going through the steps about the map together.

I loved the activities where we had to make and use a map.

Step-by-step practice with the ELM software and different scenarios.

The Café Sessions and time using software was wonderful! Little "lightbulbs" kept coming on in my head, finally.

Participants' Reactions to State Trainings
Most helpful aspects …

Learning Maps

ELM maps are mind blowing! Phrases on nodes can be easily used as learner's language for learning targets!

I like that the maps provide a track of prerequisite skills to teach for students struggling with a standard.

Being able to use the software in diagnosing where my students are and what gaps they may have.

Participants' Reactions to State Trainings
Most helpful aspects …

ELM Team

Some of the presenters really brought to life the software and responded to questions so smoothly that it really aided in us learning the ELM software and features.

The intent and passion of the presenters. They conveyed a vested interest in this project through relatable and passionate dispositions.

Immediate feedback and positive, supportive attitude from all presenters.

Participants' Reactions to State Trainings
Most helpful aspects …

Collaborating and Networking

I loved the collaborating piece with other teachers.

Time to collaborate with members of my district and have access to ELM staff to guide us.

Getting together with other teachers from around the state.

Participants' Reactions to State Trainings
Least helpful aspects …

Scheduling/Pace

Multiple breakout sessions seemed to be over the same topics.

For those learners who are not auditory learners, it was very difficult. Much was "sit and get."

Too much down time between topics.

Participants' Reactions to State Trainings
Least helpful aspects …

Internet Issues

I am a hands-on learner and wished the internet was working so I could follow along easier.

Technology and internet issues made it difficult to gain a good understanding of how to use the Locater Tool.

The technology seemed to lock up at the most critical moments in using it.

Participants' Reactions to State Trainings
Least helpful aspects …

Locater Tool Concerns

Not enough assessments for my grade level and content.

There were no pre/posttests set up for 4th grade math and I thought that was what I was coming to learn about at training.

I see the idea, but there needs to be work done on the software and responses connected to nodes.

ELM Staff's Use of Training Data and Observations for Training Adjustments

- Added experiential activity to aid in understanding of concept of learning map.
- Added breakout (café) sessions to enable participant choice and support.
- Shifted focus from presenting on the resources to use of the maps to drive teacher instruction.

ELM Staff's Use of Training Data and Observations for Training Adjustments

- Integrated technology app (Kahoot) for reviewing learning.
- Chunked software training into smaller components.
- Continued to refine how information on Locater Tool was presented.

Participants' Reactions to State Trainings

What was learned . . .

" . . . **make** my own **maps** that would be beneficial to my students."

"…**targeting areas** to strengthen or enhance my students' learning experience."

". . . have **tool** to see the **learning progression of standards**

Participants' Reactions to State Trainings

Final Comment from a Participant…

"Oh, where do I start! The **nodes**, the **standards** and how they **align**!

This is really the **road map** for a teacher and a **total gift**!"

Level 2: Learning Mathematics for Teaching Post-test

- April 2018 Cohort 1 math-focused teachers requested to complete Numbers, Concepts and Operations (NCOP) and Patterns, Functions and Algebra (PFA) of the LMT

- 9/12 (75%) completed pre and post NCOP

- 7/12 (58%) completed pre and post PFA

Learning Mathematics for Teaching Post-test

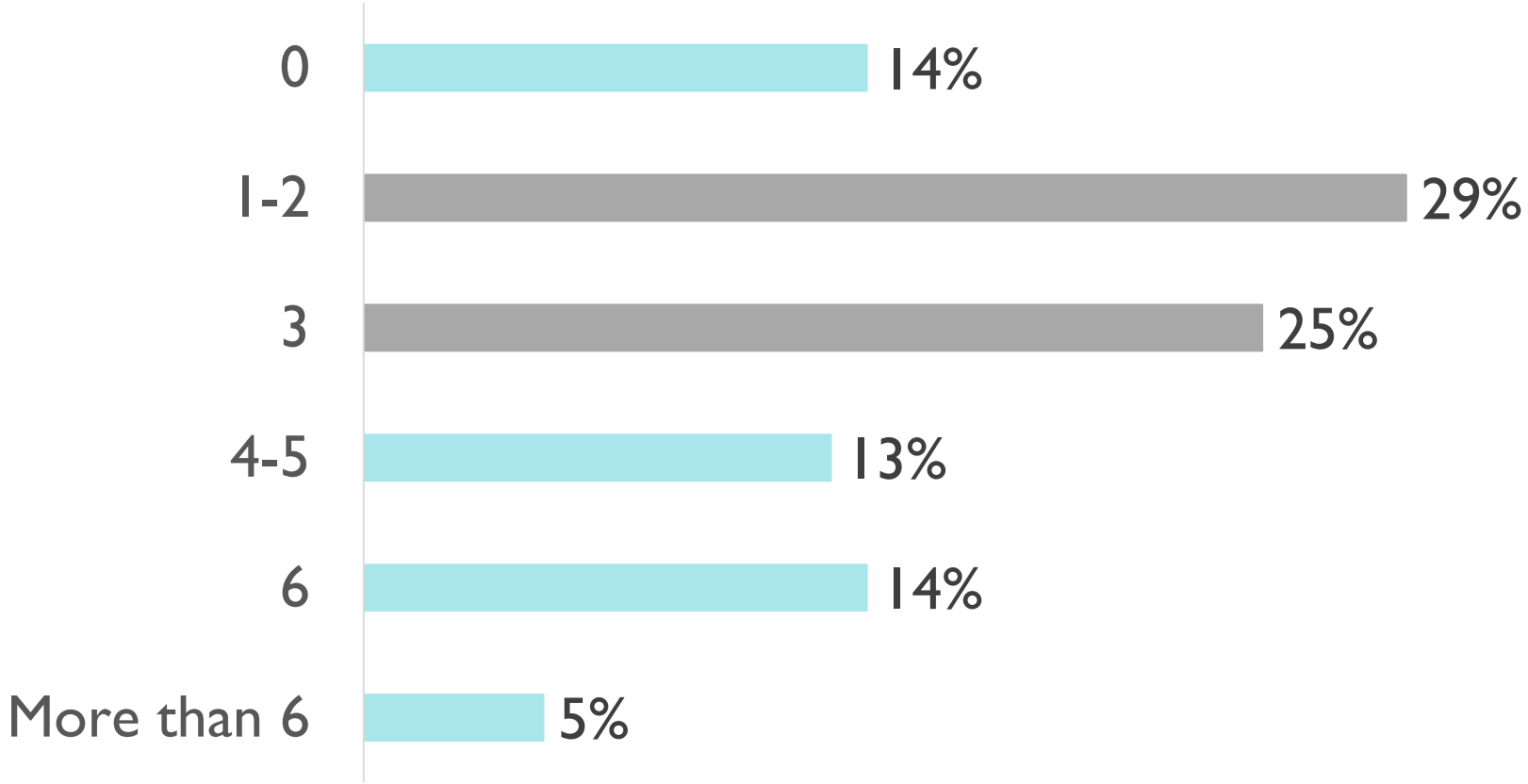
- Slight positive changes in both assessments, but not statistically significant

- Educationally significant effect for the PFA (d = 0.27) and negligible for the NCOP (d = 0.04)

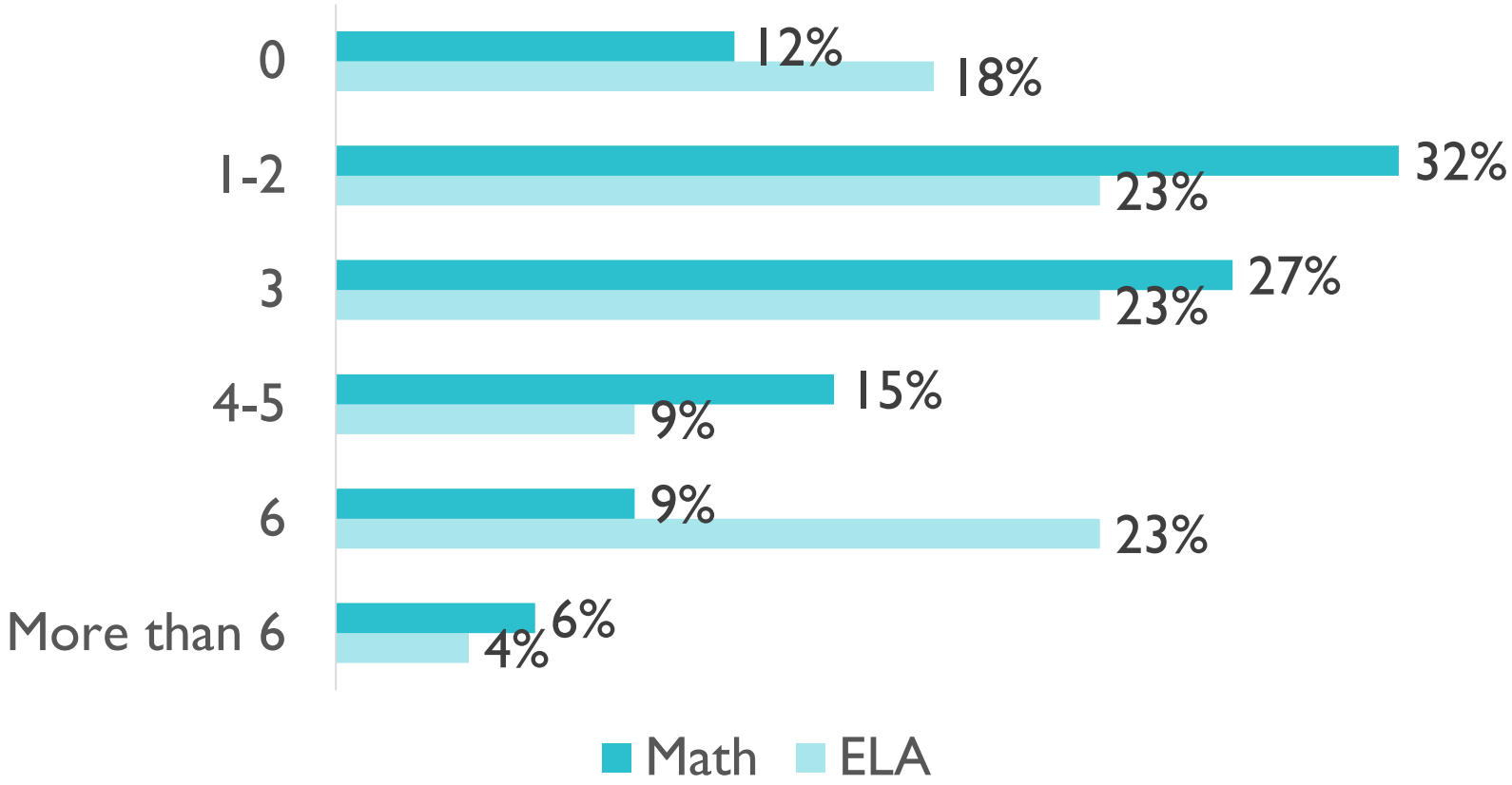
Levels 3-4: Cohort 1 and 2 Survey

- 72% response rate (48/81 teachers)
- Represented target population of 2nd-8th grade teachers
- Approximately one-third ELA and two-thirds math focused
- Represented all five states

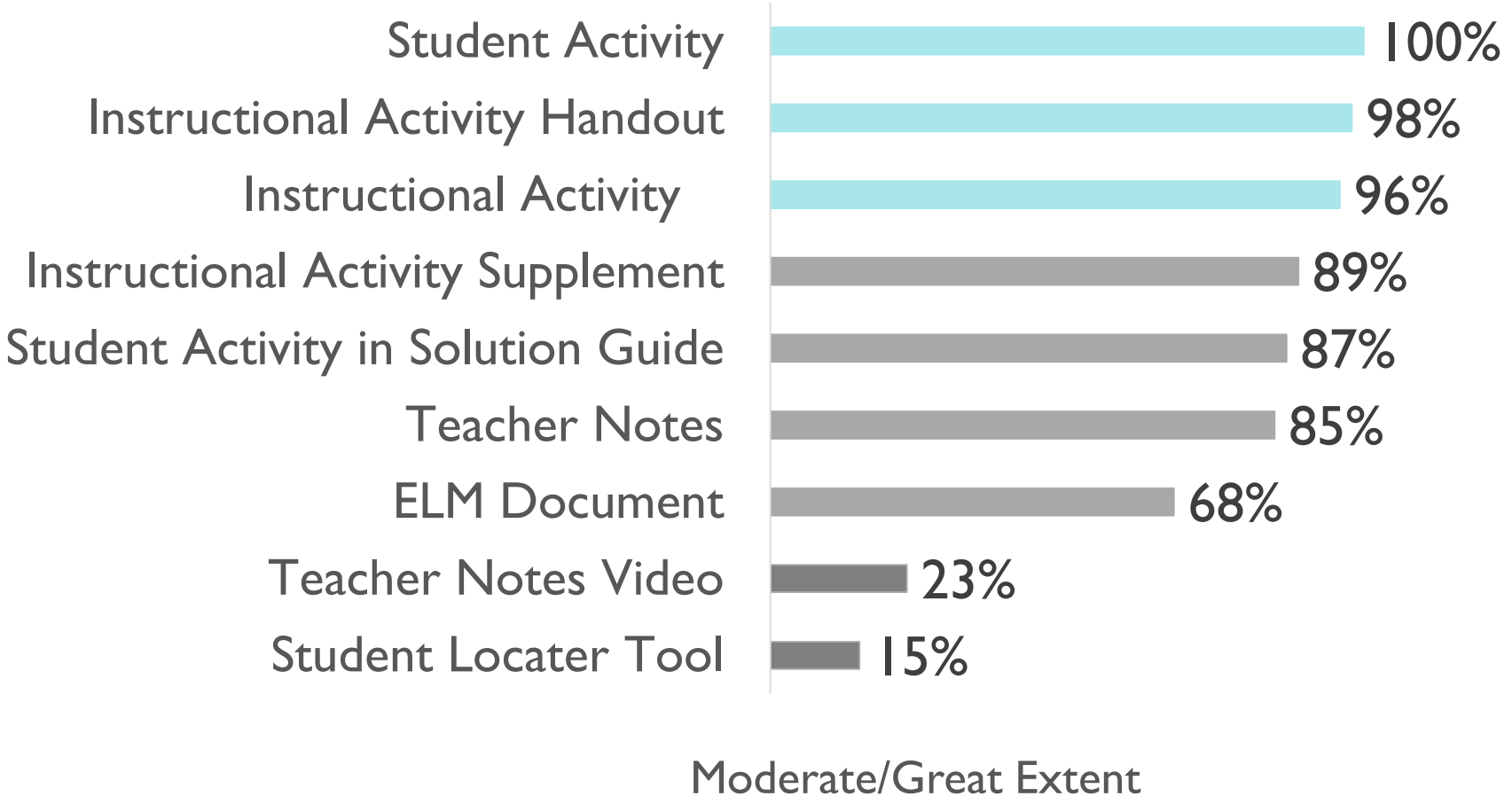
Unit Implementation



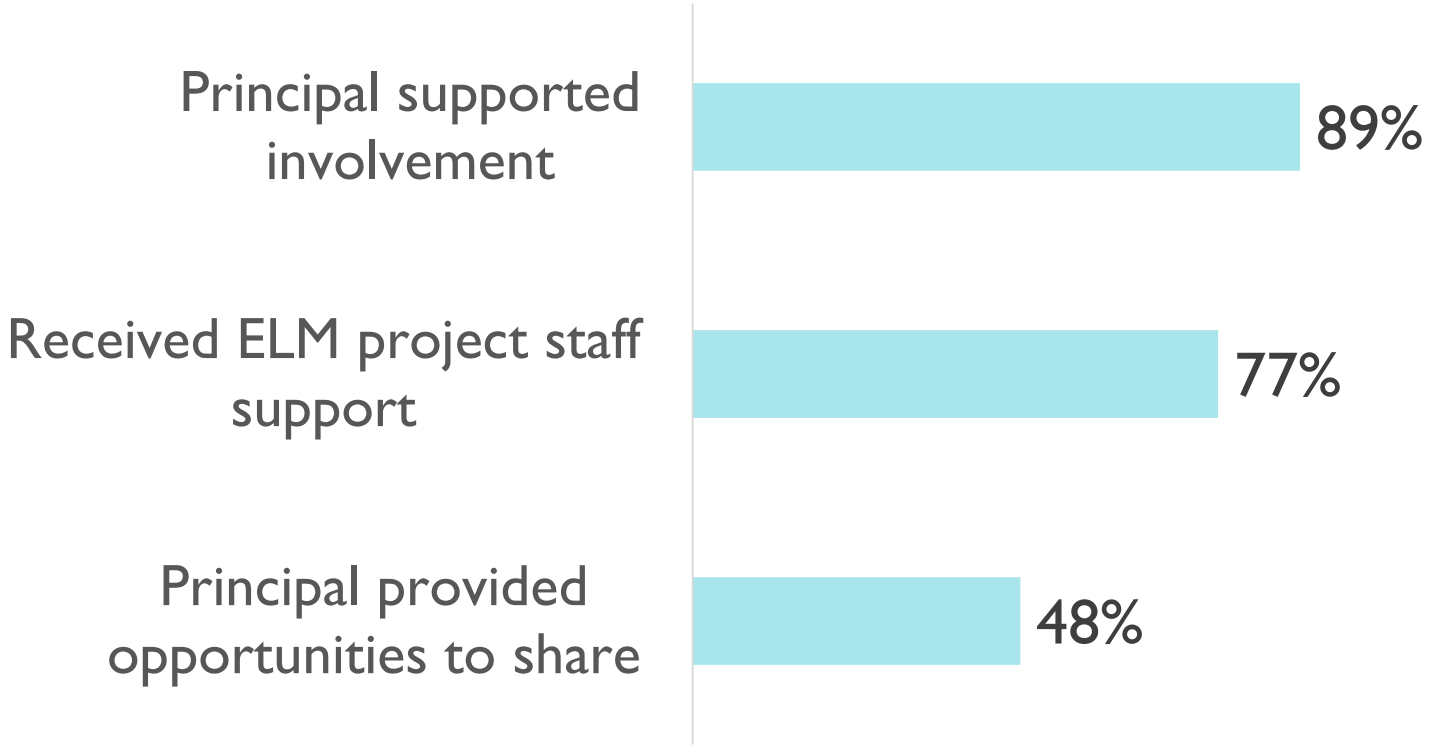
Unit Implementation
ELA vs Math



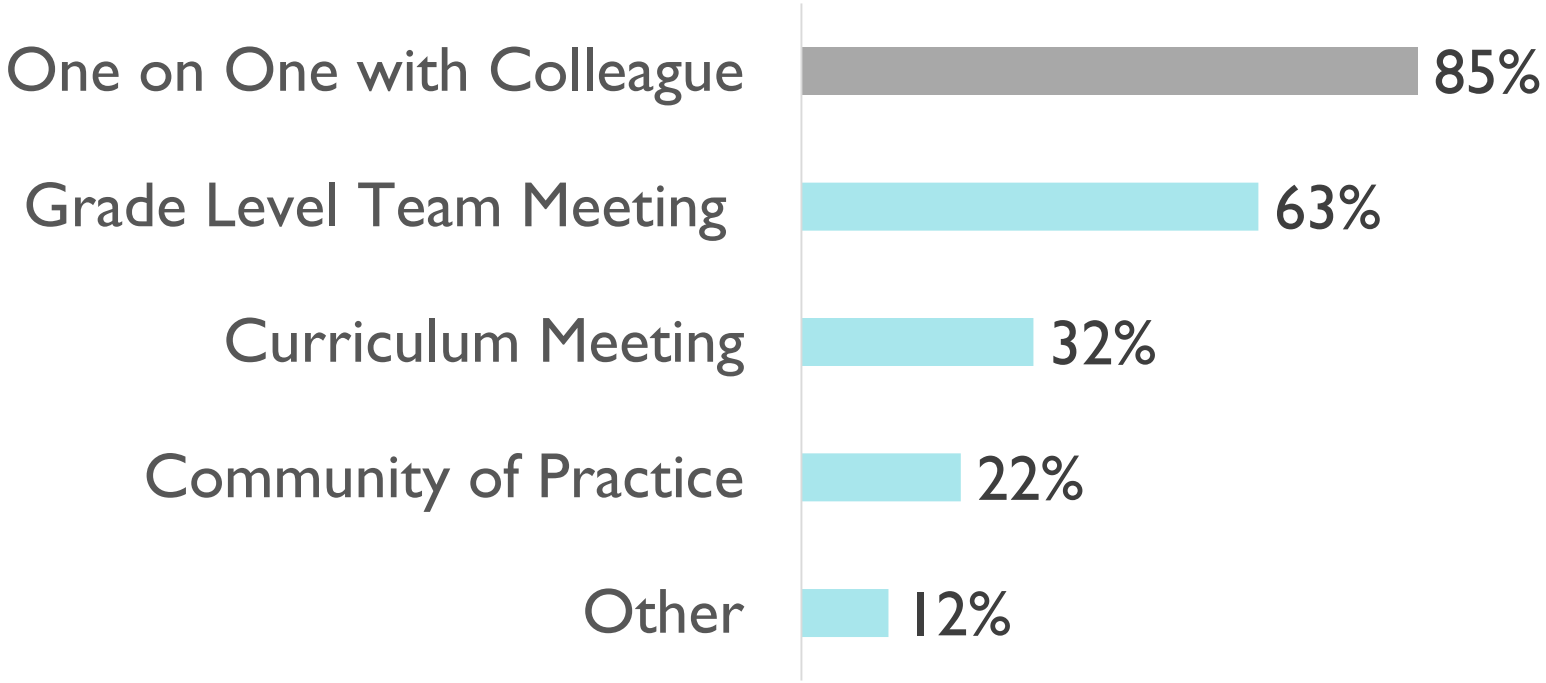
ELM Materials Usage



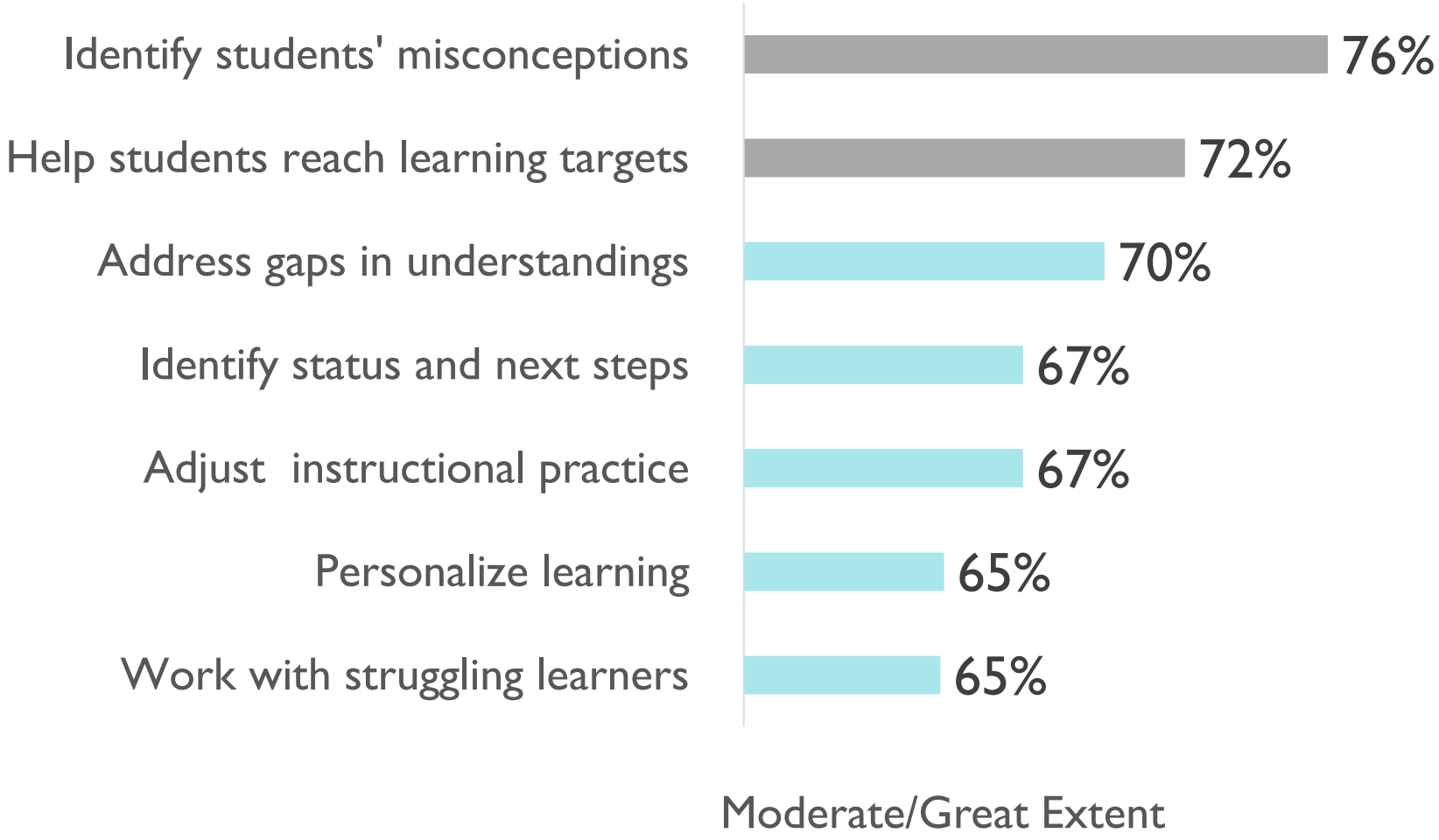
Administrator and Organizational Support



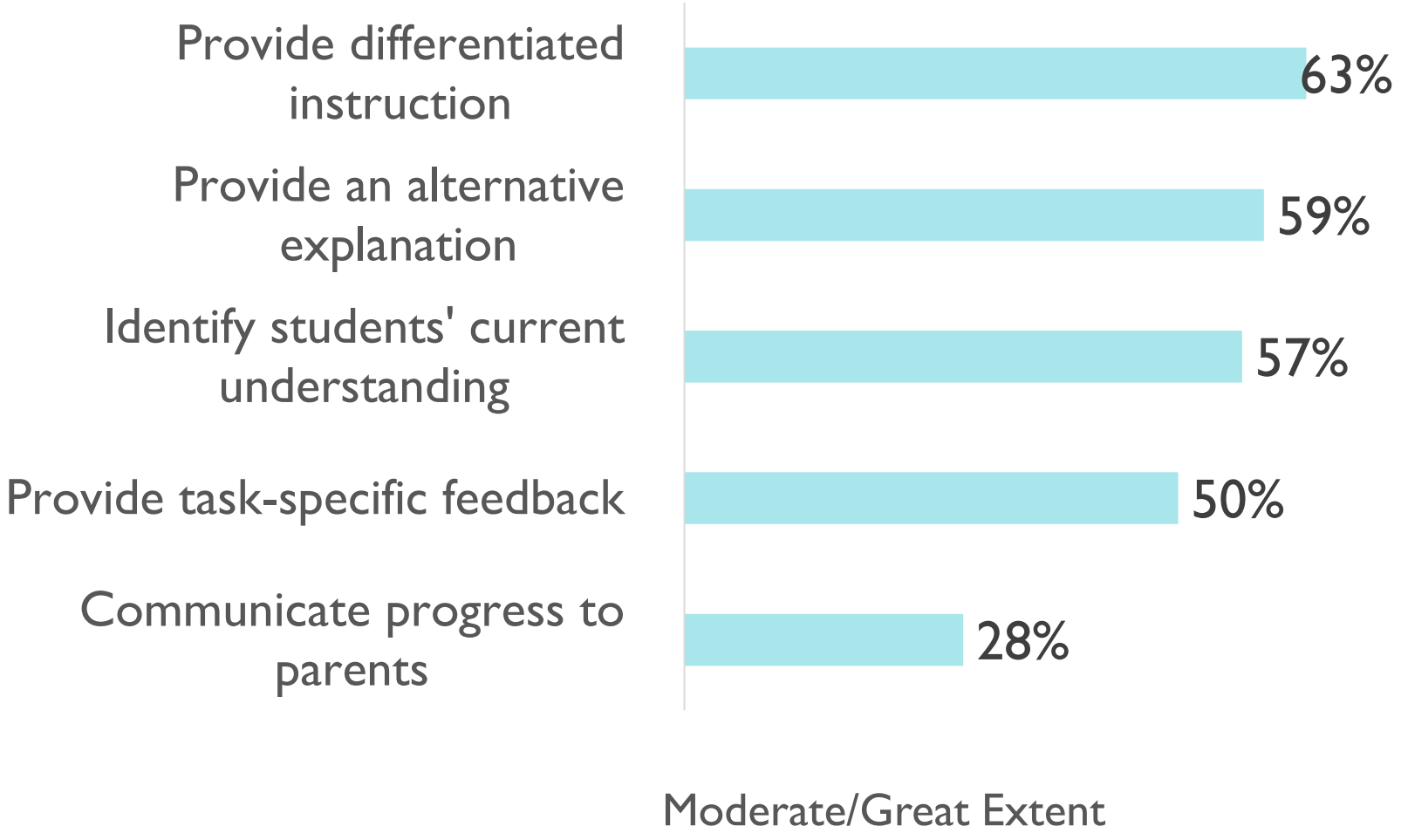
Sharing ELM Units and Learning Maps



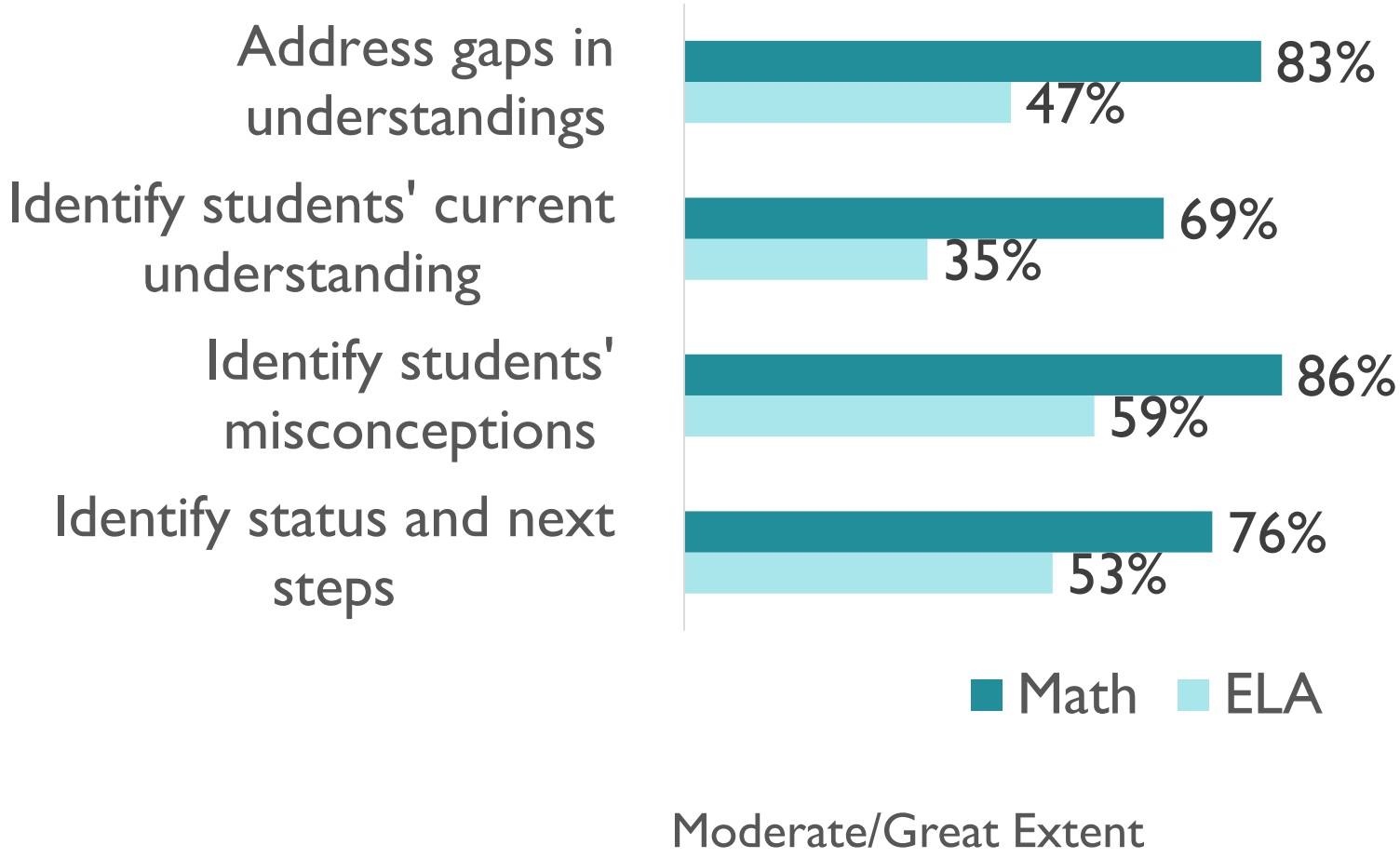
Use of Learning Maps in Instruction



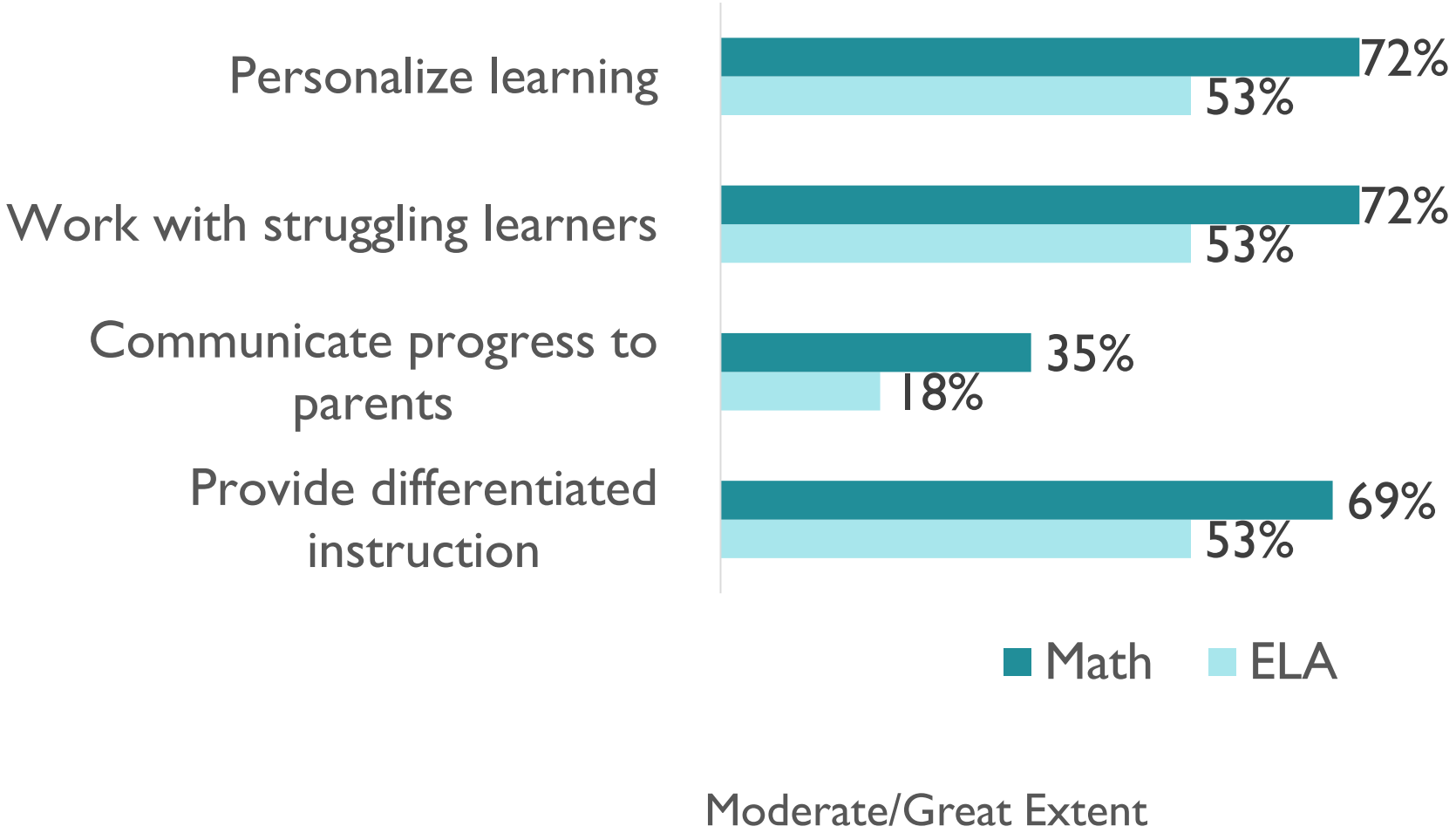
Use of Learning Maps in Instruction



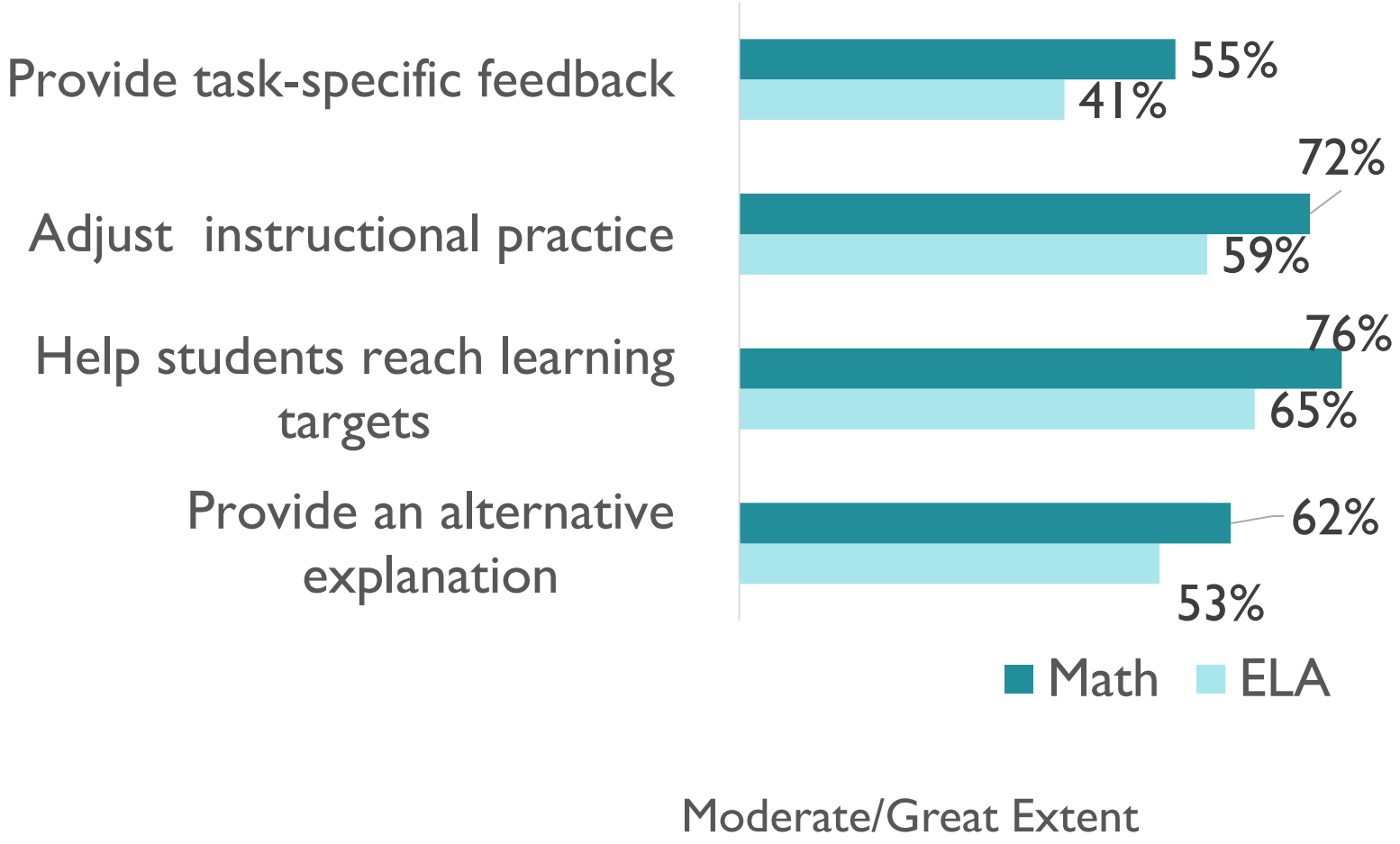
Use of Learning Maps in Instruction
ELA vs Math



Use of Learning Maps in Instruction
ELA vs Math



Use of Learning Maps in Instruction
ELA vs Math



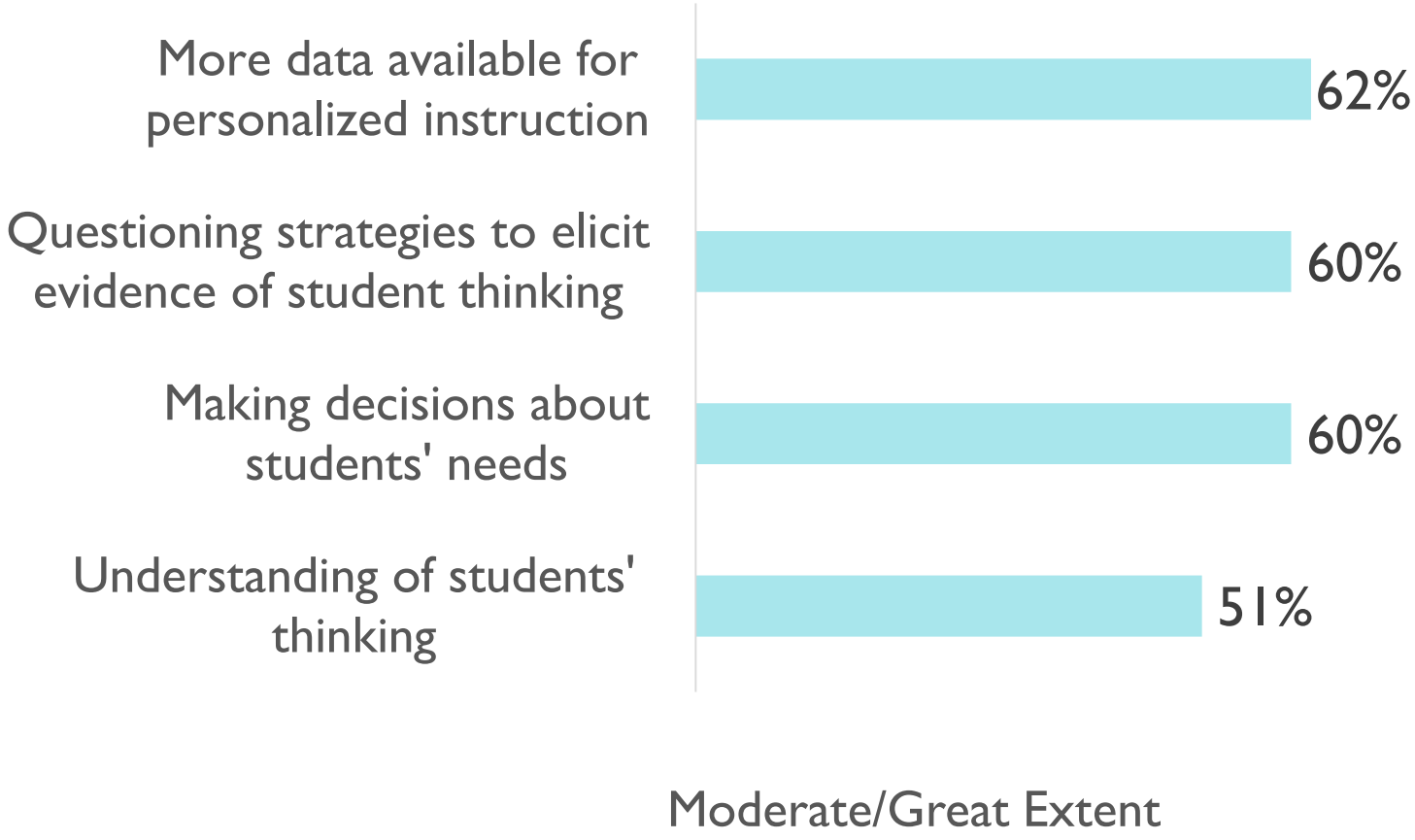
Use of Maps in Instruction

Introducing new concepts or for teaching specific concepts

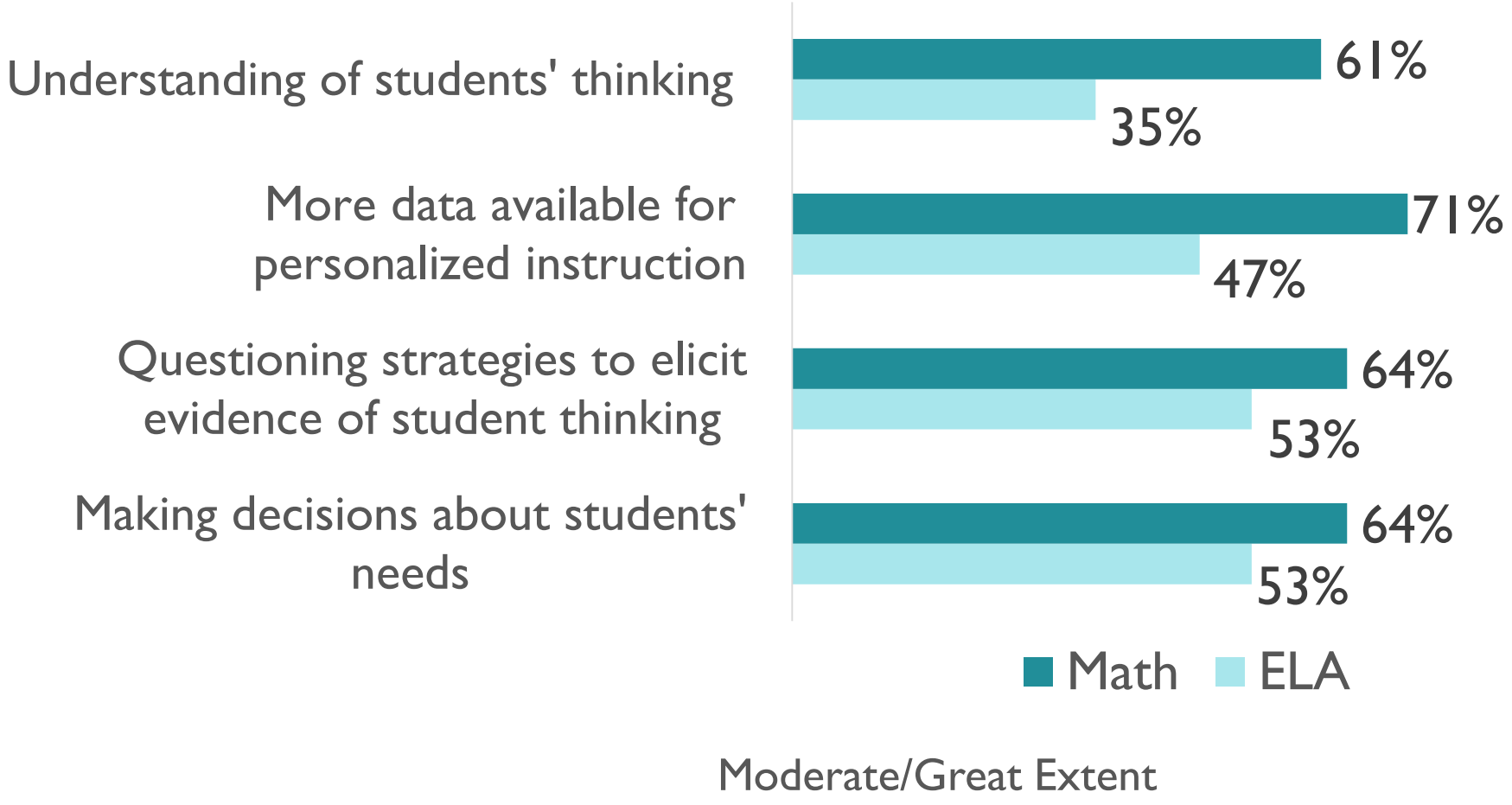
"It was a great way to introduce second graders to informational writing and creating complete paragraphs, while it reinforced building a five-sentence paragraph with fifth graders."

"I used the maps for fractions. I started with one concept and then added a node as they completed them It showed which directions my students needed to go. I had several students that needed to go back due to missing sections and it told me exactly what to give the students so they could move forward."

Impact of Learning Maps on Instructional Practice



Impact of Learning Maps on Instructional Practice – ELA vs Math



I used to … But now I …

Project Goal:

To improve teachers' ability to provide **personalized instruction** by supplying them with the tools they need to implement effective **formative assessment** practices.

Q: What changes are we seeing in teachers' instructional practices?

Next Steps in Evaluation

- Project staff and partner interviews (Summer 2018 and 2019)
- Cohorts 1-3 Implementation and Impact Survey (Spring 2019)
- LMT administered to Cohort 2 math-focused participants (Spring 2019)

Reactions to Data Presented and Questions

- What findings surprised you?
- What are the implications of the findings?
- What conclusions might you draw from the findings?

Contact Information

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ENHANCED
LEARNING MAPS
INSIGHTS FOR INSTRUCTION

Software development and dissemination status

Software Development and Dissemination

- Four major tools
  - Modern Copy
  - Locater
  - Fabricator
  - Test Builder
- Additional: Visualization Tool
- Options and plans for release

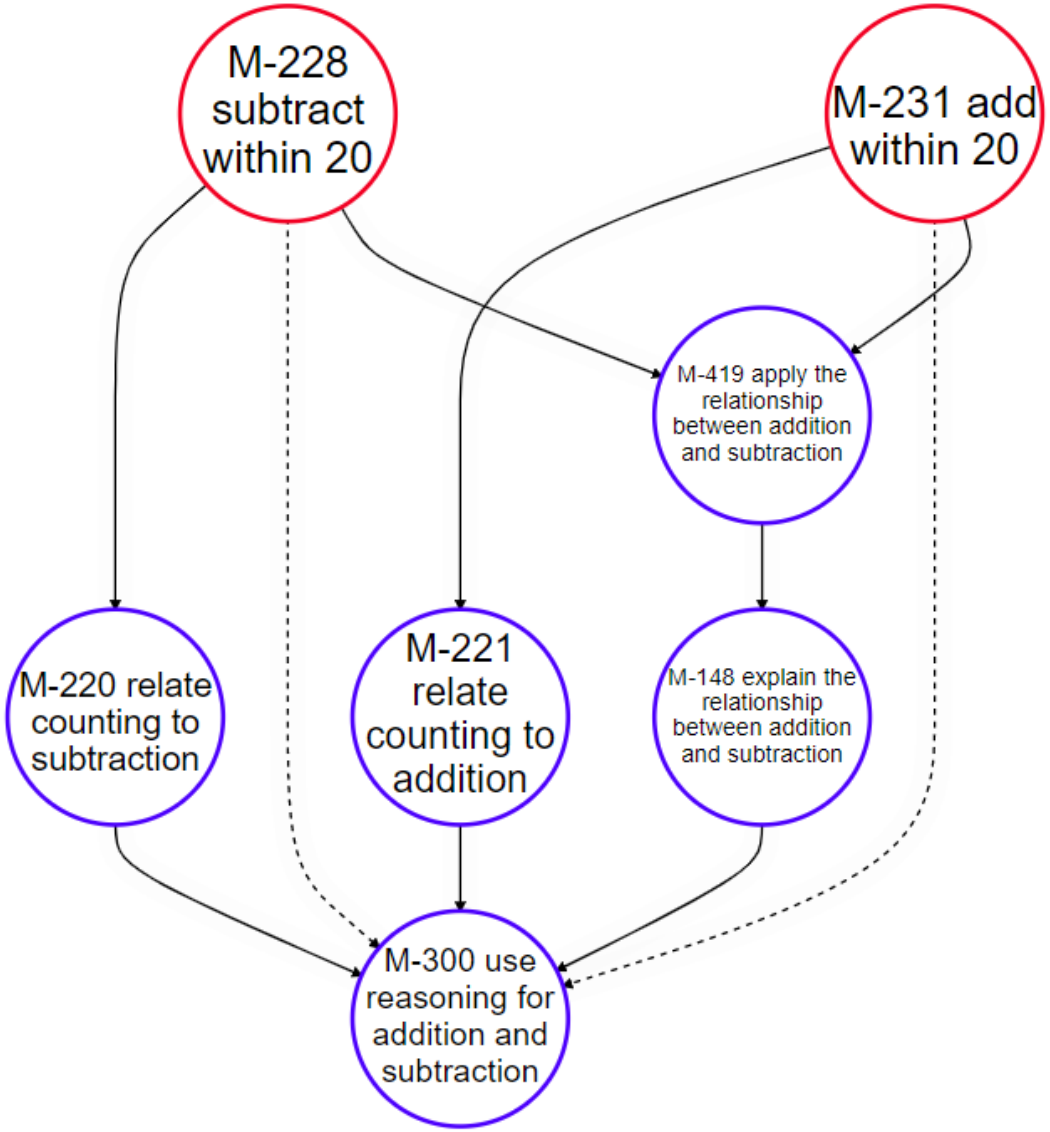
Modern Copy

- The primary interface used by teachers to access maps and resources
- Navigate by standard or keyword search
- Download instructional unit resource materials
- Discussion forums

Math

ELA

Kindergarten	1st Grade	2nd Grade	3rd Grade	4th Grade	5th Grade	6th Grade	7th Grade	8th Grade	High School
Operations & Algebraic Thinking						Expressions & Equations			Algebra
K.OA	1.OA	2.OA	3.OA	4.OA	5.OA	6.EE	7.EE	8.EE	A-
Counting & Cardinality			Numbers & Operations - Fractions			Ratios & Proportions		Functions	
K.CC			3.NF	4.NF	5.NF	6.RP	7.RP	8.F	F-
Numbers & Operations - Base Ten						The Number System			Number & Quantity
K.NBT	1.NBT	2.NBT	3.NBT	4.NBT	5.NBT	6.NS	7.NS	8.NS	N-
Measurement & Data						Statistics & Probability			
K.MD	1.MD	2.MD	3.MD	4.MD	5.MD	6.SP	7.SP	8.SP	S-
Geometry									
K.G	1.G	2.G	3.G	4.G	5.G	6.G	7.G	8.G	G-



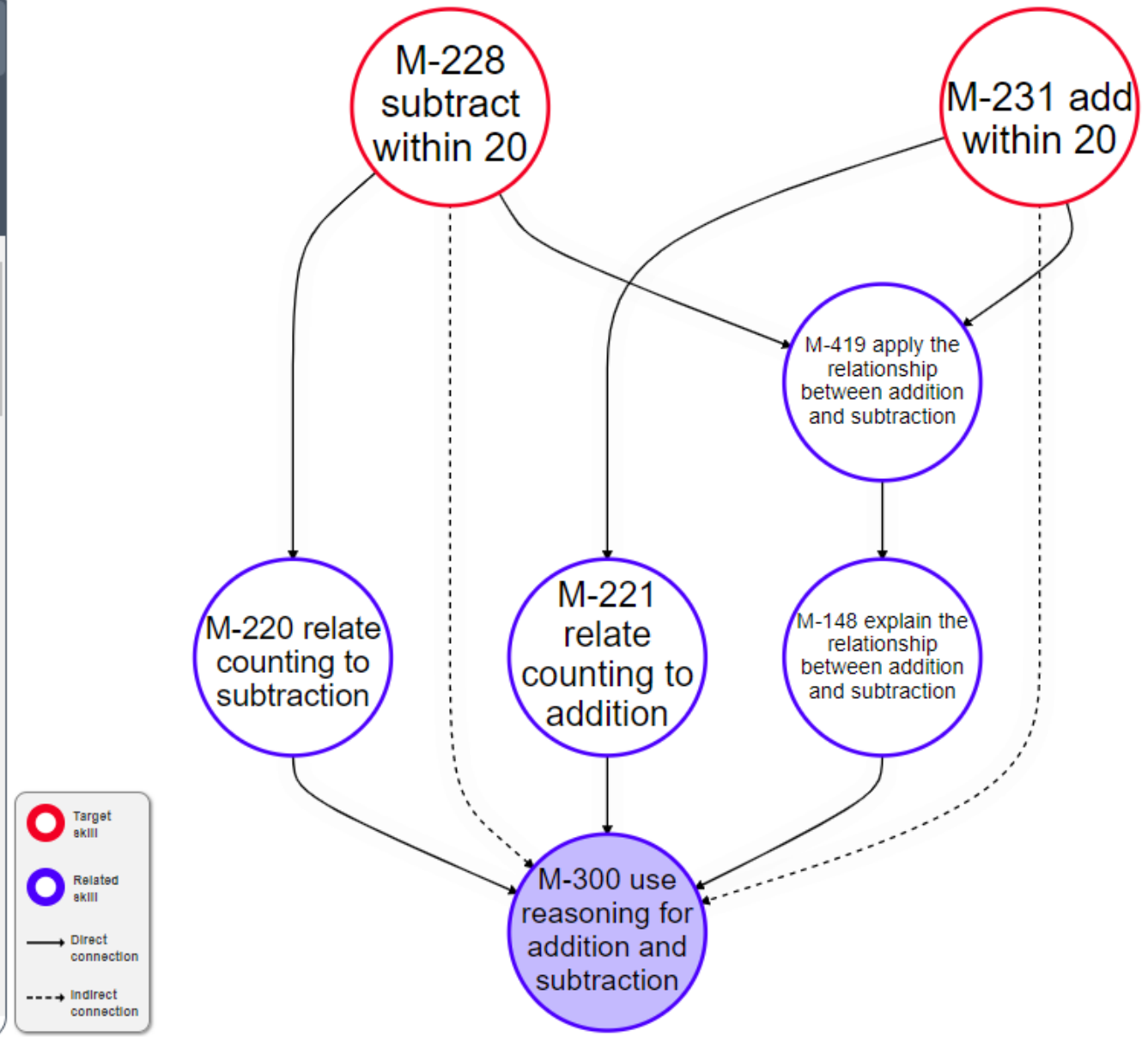
Target skill
Related skill
Direct connection
Indirect connection

Resources

Map View Info | Resources | Node Table
Standards | My Map Views | Discussion
Student Locater Tool

Related Resources

Adding and Subtracting to Solve One-Step and Two-Step Problems	In this unit, students will use addition and subtraction within 100 to solve a variety of one- and two-step problems. Throughout the lessons, students will be encouraged to use invented strategies based on place value to add and subtract.	2.OA.1
Addition and Subtraction Within 100	In this unit, students will invent, compare, and discuss strategies for	2.NBT.5



ENHANCED LEARNING MAPS

subtract

Help Standards elm@ku.edu

	Search for more nodes to include	*match any (and)*	103 Nodes
	Search nodes using keywords	*match any (and)*	108 Nodes
	Search for more nodes to include	*match any (or)*	103 Nodes
	Search nodes using keywords	*match any (or)*	108 Nodes

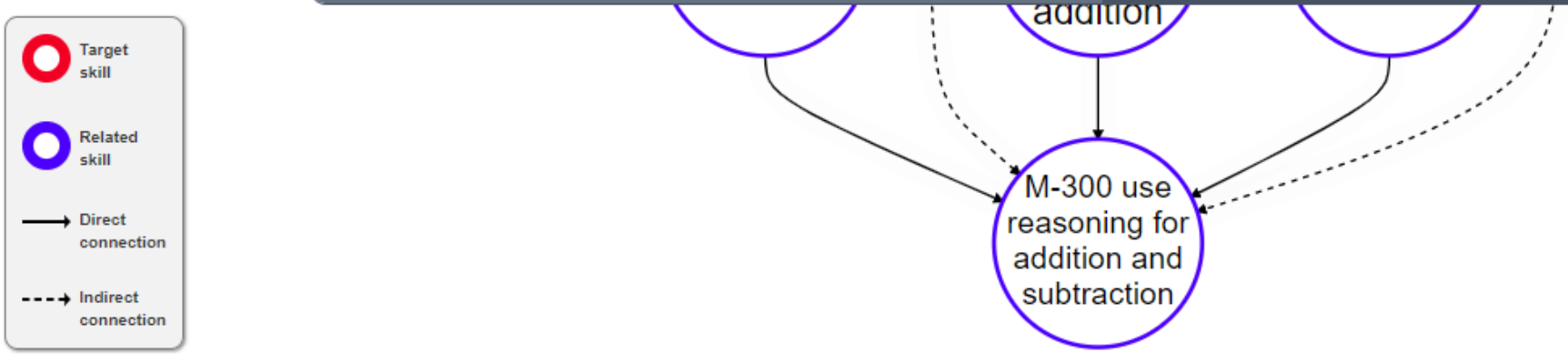
Matching Map Views & Resources

	7.NS.1	30 Nodes
	6.NS.5,6	32 Nodes
	5.NF.1,2	17 Nodes
	7.EE.1,2	15 Nodes
	2.OA.1_Version_2	18 Nodes
	2.OA.2 V2	7 Nodes
	2.OA.1	19 Nodes
	2.OA.1 Wi Training	19 Nodes

Matching Map Views

	5.NF.1	17 Nodes
	5.NF.2	11 Nodes
	Show all results	79 more

Math ELA



Discussion

Map View Info | Resources | Node Table

Standards | My Map Views | Discussion

Student Locater Tool

Discussions

Unit Feedback Survey

Map Discussions

RL.5.6

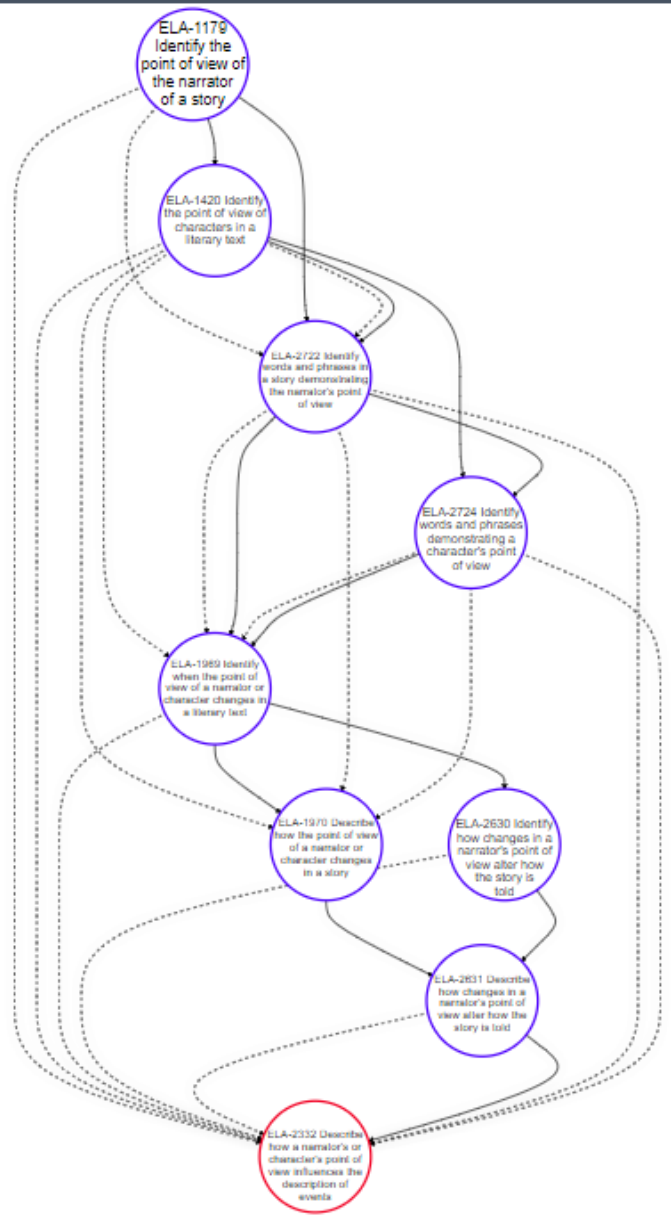
maderk@usd230.org 2018-07-16 14:01:08

Just learning software

jmarchello@usd294.org 2018-07-17 10:11:34

Me too! I like how the maps walk us through the standards.

Start New Topic



Locater

- Create class rosters
- Assign tests to students in a roster
- Gather results and prepare reports
- Student PII (i.e., names)
  - NOT stored in our database
  - Encrypted and stored in your browser's local storage
  - We cannot recover them if you lose your password!

Create New Roster

roster name | roster length | create

My Rosters

print

Training 1

export to CSV | remove roster

	Real Name A→Z	Username A→Z	Report
☐	Tracy	Acorn Comet Road ↺ ×	
☐	Mark	Cave Moose Sand ↺ ×	
☐	Fred	Bee Fish Wheat ↺ ×	
+	Add New Student		
+	Add Existing Student		

Training 2

export to CSV | remove roster

	Real Name A→Z	Username A→Z	Report
☐	Paul	Lamp Rock Wheat ↺ ×	
☐	Megan	Car Key Tent ↺ ×	
+	Add New Student		
+	Add Existing Student		

Locater Tool Name	Due Date	Password	Students	Edit	Report
3.MD.6,7 Pre-test (3.MD.8,9 in AK) *Constructed Response Item.*		test1	0 / 2	Edit	
3.MD.6,7 Post-test (3.MD.8,9 in AK)		test2	0 / 1	Edit	

Assign Locater Tool

Select Locater Tool

Due Date optional due time clear

Password case insensitive

Note to Self comment

Note to ELM How did it go? Were there any technical problems? Should any data be excluded from our statistical analysis? Please use usernames, not real names.

clear submit

Assign Students

- **Training 1**
- **Training 2**
- **KS Training 1**

To make individual student assignment adjustments, use the student checkboxes in the roster(s) below.

Fabricator

- Internal tool used for
  - Crosswalk
  - Adding resources
  - Making map views
- There are no plans for releasing this tool at the end of the project

Maps

Nodes

Resources

Standards

Standard Sets

ENHANCED LEARNING MAPS
INSIGHTS FOR INSTRUCTION

EDIT

Fabricator

← To begin, choose what you want to change from the tabs to the left.

For example: If you would like to change the name of a map, choose the "Map" tab. If you would like to change the standards on a Node, choose the "Node" tab, ect.

Maps
Nodes
Resources
Standards
Standard Sets

Search | Search

Hide maps without resources.
Hide User (Non-ELM) maps.

NEW

LOADING
2.DS.A.1
Create a line plot to r...

LOADING
2.DS.A.2
Generate measurem...

LOADING
2.DS.A.3
Draw a picture graph...

LOADING
2.DS.A.4
Solve problems usin...

LOADING
2.DS.A.5
Draw conclusions fro...

LOADING
2.G.1
Recognize and draw ...

LOADING
2.G.1

LOADING
2.G.2
Partition a rectangle i...

LOADING
2.G.2

LOADING
2.G.3
Partition circles and r...

LOADING
2.G.3

1-11 of 754 >> >

Title
EDIT
2.DS.A.1

Owner nlindner@ku.edu

Description
Create a line plot to represent a set of numeric data, given a horizontal scale marked in whole numbers.

Is public.

Details
Resources
Nodes
Actions
Help

Maps
Nodes
Resources
Standards
Standard Sets

Search Search

NEW


Alaska


CCSS


Kansas


Missouri

1-4 of 4

EDIT


Kansas

Search Search

2.G.1
Recognize and draw

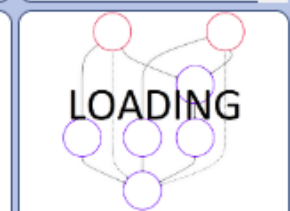
2.G.1

2.G.1 (Word Docs)
Word versions of all

2.G.1 (Word Docs)
Student word docs for

2.G.1 (Word Docs)

2.G.2
Partition a rectangle into



2.G.2

2.G.3
Partition circles and

< << 57-64 of 2054 >> >

Details
Maps
Nodes
Resources
Standards
Actions
Help

Subjects:

ELA

Click to Activate

Math

Active

Grades:

- Kindergarte
- 1st Grade
- 2nd Grade
- 3rd Grade
- 4th Grade
- 5th Grade
- 6th Grade
- 7th Grade
- 8th Grade
- High Schoc

Table

- Operations & Algebraic Thinking
  - K.OA
  - 1.OA
  - 2.OA
  - 3.OA
  - 4.OA
  - 5.OA
- Expressions & Equations
  - 6.EE
  - 7.EE
  - 8.EE
- Algebra
  - A-
- Counting &
  - K.CC
- Numbers & Operations: Fractions
  - 3.NF
  - 4.NF
  - 5.NF
- Ratios & Porportions
  - 6.RP
  - 7.RP
- Functions
  - 8.F
  - F-
- Number & Operations: Base Ten
  - K.NBT
  - 1.NBT
  - 2.NBT
  - 3.NBT
  - 4.NBT
  - 5.NBT
- The Number System
  - 6.NS
  - 7.NS
  - 8.NS
- Number &
  - N-
- Measurement & Data
  - K.MD
  - 1.MD
  - 2.MD
  - 3.MD
  - 4.MD
  - 5.MD
- Statistics & Probability
  - 6.SP
  - 7.SP
  - 8.SP
  - S-

Back | Add Row | Add Title | Add Subject

Test Builder

- Internal tool used for
  - Authoring tests designed to place students on a map
  - Question responses (correct and incorrect) are associated with nodes in the map
- There are no plans for releasing this tool at the end of the project

Saved Tests

☐ Show deleted and overridden tests

Test ID	Title	Author	Questions	Date Created	Revision	Version	Public			
10	**RI.2.6 Post-test** : *Woods of Net in Japan*	hollywetmore@ku.edu	11	06/16/2018, 02:45:19 PM	9	B	✓	edit	preview	delete
25	**RI.4.8 Post-test** : *Earthworms and the Environment*	walterwilliams@ku.edu	11	06/18/2018, 02:03:42 PM	5	B		edit	preview	delete
17	**RI.3.1 Pre-test** : *Birds as Builders*	hollywetmore@ku.edu	9	06/19/2018, 09:40:44 AM	5	A	✓	edit	preview	delete
30	**RI.3.1 Post-test** : *About a Butterfly*	hollywetmore@ku.edu	12	06/19/2018, 09:41:08 AM	5	B	✓	edit	preview	delete
32	**RI.3.6 Pre-test** : *Canine Freestyle*	hollywetmore@ku.edu	11	06/19/2018, 09:46:17 AM	6	A	✓	edit	preview	delete
31	**RI.3.6 Post-test** : *Go Outside*	hollywetmore@ku.edu	9	06/19/2018, 09:48:16 AM	4	B	✓	edit	preview	delete
14	**3.MD.6,7 Pre-test (3.MD.8,9 in AK)** : *Determining Area of Rectangles*	cgayler@ku.edu	15	06/19/2018, 04:31:26 PM	4	A	✓	edit	preview	delete
13	**3.MD.6,7 Post-test (3.MD.8,9 in AK)** : *Determining Area of Rectangles*	cgayler@ku.edu	15	06/19/2018, 04:31:41 PM	6	B	✓	edit	preview	delete
26	**6.RP.1,3.a Post-test** : *Ratios and Equivalent Ratios*	hollywetmore@ku.edu	15	06/20/2018, 11:03:41 AM	7	B	✓	edit	preview	delete
16	**5.NBT.5 Post-test** : *Multiply Multi-Digit Whole Numbers (B)*	hollywetmore@ku.edu	15	06/21/2018, 09:51:03 AM	3	B	✓	edit	preview	delete
20	**6.EE.6,7 Pre-test** : *Equations*	hollywetmore@ku.edu	17	06/21/2018, 09:55:29 AM	6	A	✓	edit	preview	delete
19	**8.EE.7 Post-test** : *Solving Equations & Developing the Foundation for Proofs*	hollywetmore@ku.edu	15	06/21/2018, 09:57:38 AM	2	B	✓	edit	preview	delete

Test Title RI.2.6 Post-test

Student Title Woods of Net in Japan

Test Passage <p><span style="font-size: 1

Test Subject ELA ELA

Test Standards RI.2.6

Test Map Views 1470946236014,{ag:{g:399}}

Reporting Nodes 1131, 1132, 1114, 2571

Version B

This test ID 10

Companion ID 9

☑ **Make Test Public**

---

1. <p>What is the text mostly</str 3 ELA-1132-Identify the topic o ▼ ▲ x

A. ○ a net in Japan that hangs in 1461 anti-nodes Identify details relevant to the ▼ ▲ x

B. ◉ a net in Japan that is also a 1132 anti-nodes Identify the topic of a multi-pa ▼ ▲ x

C. ○ a net playground in Japan th 1461 anti-nodes Identify details relevant to the ▼ ▲ x

D. ○ a place in Japan that is cove 1461 anti-nodes Identify details relevant to the ▼ ▲ x

add option | formula editor

add multiple choice part | add multiple select part | add constructed response part

---

Test Results Viewer

Open in new tab ↗ x

Read the text and answer the questions.

Woods of Net in Japan
by Becky Mandelbaum

A giant net hangs in Japan. Parts of the net are different colors. Some people might think the net is just a work of art. But really, this large, colorful net is a playground made of yarn. The playground is called Woods of Net, and it is nearly the size of three houses put together!

The net hangs inside a large wooden frame. This frame protects the net from the rain and the sun. A Japanese artist made the net and the frame.

Although it was created by an artist, children can play on the colorful net. The net has several parts. In some places, the net is stretched tight like a trampoline. In other places, it hangs loose like an open sack.

Kids can use the net in different ways. They can climb like spiders up the knitted walls. Kids can also bounce on the tight part of the net. Once at the top, kids can jump on, roll down, or crawl along the net. They can also lie back in the loose part of the net. Kids can swing on knitted swings that hang from the giant net. Woods of Net is the perfect place for children who want to climb, tumble, swing, or simply take a nap.

Woods of Net in Japan

1. What is the text **mostly** about?

- a net in Japan that hangs in the woods
- a net in Japan that is also a playground
- a net playground in Japan that looks like woods
- a place in Japan that is covered in nets

2. Why did the author **most likely** write the text?

< >

submit zoom out - zoom original zoom in +

Visualization Tool

- Goals
  - Present visualizations of student and/or class mastery of concepts represented on a map so that teachers can decide what concept to teach next to help the students advance through the map.
  - Present visualizations of how students as a whole have progressed from node to node so that researchers can validate and/or correct the underlying map.
- This tool will be released at the end of the project
- There will be a dedicated session on the design considerations for this tool after lunch

Options and Plans for Release

- Goals:
  - Release Modern Copy and Locater by the end of summer 2019
  - Visualization tool may not be released until a bit later
- Schools/Districts can contract with ATS to host the system. This would be on a pay for service basis.
- Schools/Districts could also choose to host the system themselves.
  - Requires “LAMP” stack: Linux, Apache, MySQL, PHP
  - Source along with installation and operation instructions will be released on a github site.
  - If you want to use the Locater tool, there will be some additional hosting requirements since NodeJS will also be required.

Where are we now? Where are we going?


STAFF


Budget
70%
30%

Short-term items to complete

- Unit edits based on feedback (esp. ELA)
- Updating the user guide and videos
- Create and publish locater tool tests for math and ELA
- Notify teachers and provide assistance for KITE Collector input
- Complete DSAs for AK and MO
- Set up PII storage files on ATS server
- Complete the next annual grant performance report

Video chat sessions

Videos

TEACHER NOTES MATH	TEACHER NOTES ELA	GENERAL	WEBINARS

Watch the Sept. 28, 2016
Administrator Webinar

[Administrator Webinar: September 28, 2016]

Watch the Jan. 17 & 18, 2017
Teacher Webinars

[Teacher Webinars: January 17 & 18, 2017]

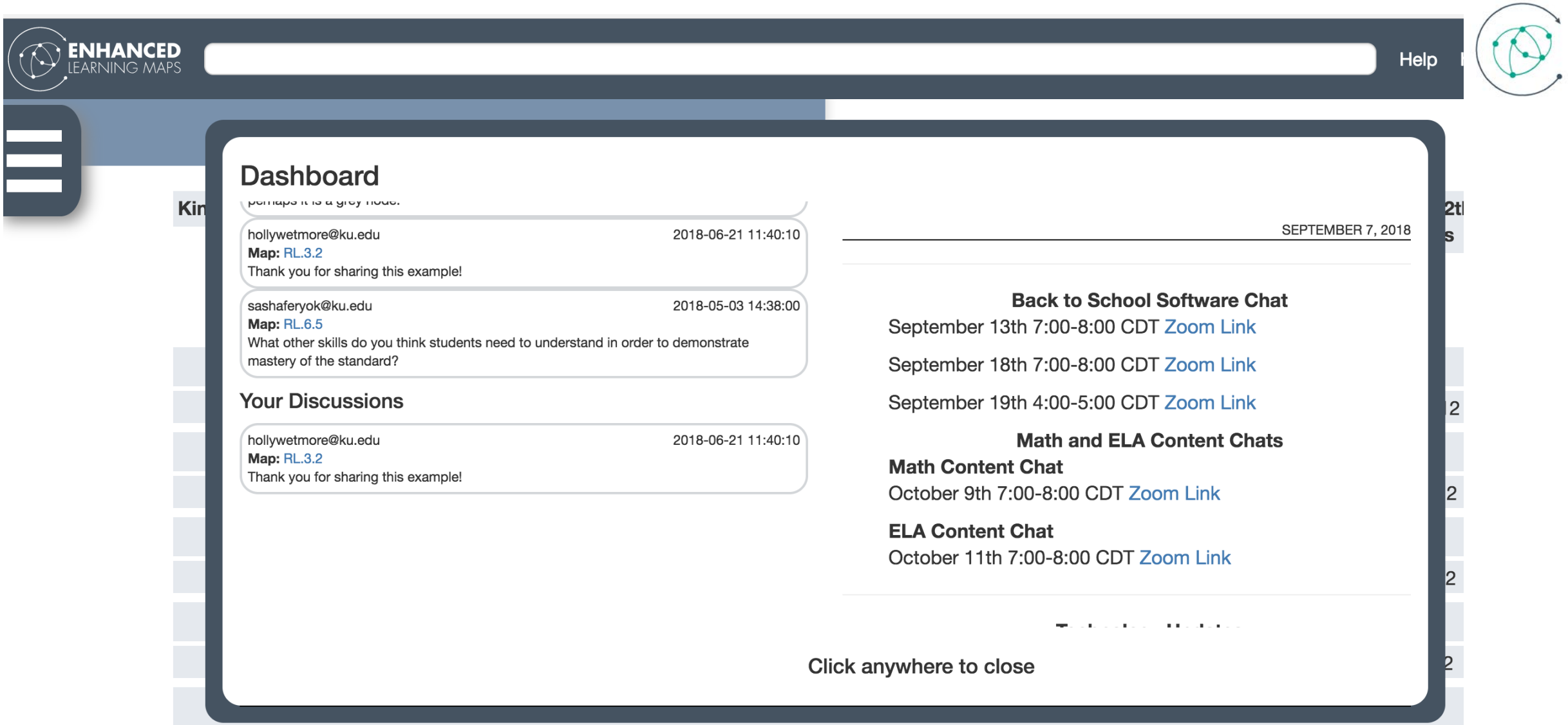
Watch the Sept. 12, 2017
Teacher Webinar
4:00 p.m. CST

48:14

Watch the Sept. 12, 2017
Teacher Webinar
7:00 p.m. CST

55:19

zoom
Video Conferencing


ENHANCED
LEARNING MAPS
Help
Dashboard
hollywetmore@ku.edu 2018-06-21 11:40:10
Map: RL.3.2
Thank you for sharing this example!
sashaferyok@ku.edu 2018-05-03 14:38:00
Map: RL.6.5
What other skills do you think students need to understand in order to demonstrate mastery of the standard?
Your Discussions
hollywetmore@ku.edu 2018-06-21 11:40:10
Map: RL.3.2
Thank you for sharing this example!
SEPTEMBER 7, 2018
Back to School Software Chat
September 13th 7:00-8:00 CDT Zoom Link
September 18th 7:00-8:00 CDT Zoom Link
September 19th 4:00-5:00 CDT Zoom Link
Math and ELA Content Chats
Math Content Chat
October 9th 7:00-8:00 CDT Zoom Link
ELA Content Chat
October 11th 7:00-8:00 CDT Zoom Link
Click anywhere to close
SL.K
SL.1
SL.2
SL.3
SL.4
SL.5
SL.6
SL.7
SL.8
SL.9-10
SL.11-12

ENHANCED
LEARNING MAPS
INSIGHTS FOR INSTRUCTION

ELM Research agendas

Enhanced Learning Maps Research Study

Governance Meeting – September 11, 2018

McREL INTERNATIONAL

Helping students, educators, and leaders flourish

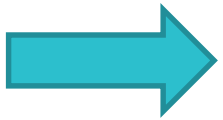
ELM Project Context – Project Goal

To improve teachers' ability to provide personalized instruction by supplying them with the tools they need to implement effective formative assessment practices.

Theory of Action

Teachers given tools and professional development

Teachers use the tools and apply the instructional practices



Student learning changes

Professional Development

- Two days face-to-face training
- Honoraria for training attendance and travel reimbursement
- Ongoing supports through ELM

Participation Expectations

- Implement up to six instructional units
- Provide feedback on the units
- Receive stipend for each feedback survey completed (Cohorts 1-2)

Description of Participants 2018-19

Total of 338 study participants:

- Cohort 1 = 19
- Cohort 2 = 54
- Cohort 3 = 265

Description of Participants 2018-19

Content focus:

- ELA = 68
- Math = 127
- Both = 16
- Not identified = 127

Description of Participants 2018-19

State representation:

- Alaska = 143
- Kansas = 145
- Missouri = 16
- Wisconsin = 34

ELM Research Year 4

Research Question 1:

Does the learning maps-based system of online formative assessment supports and materials improve student performance? (**Stated in proposal)**

Are there differences in student performance for students experiencing the intervention and a control group of students? **(Operationally defined)**

ELM Research Year 4

RQ 1: Are there differences in student performance for students experiencing the intervention and a control group of students?

- Examines impact
- Uses state assessment data
- Requires establishing data sharing agreements
- Propensity score matching
- Analyses to use multilevel modeling

ELM Research Year 4

Research Question 2:

Are there differences in student performance for teachers who have high, medium, and low usage of the ELM units?

ELM Research Year 4

RQ 2: Are there differences in student performance for teachers who have high, medium, and low usage of the ELM units?

- Examines usage of aspects of the ELM units
- Data to be collected via teachers' self-report
- Proposing monthly reporting

ELM Research Year 4

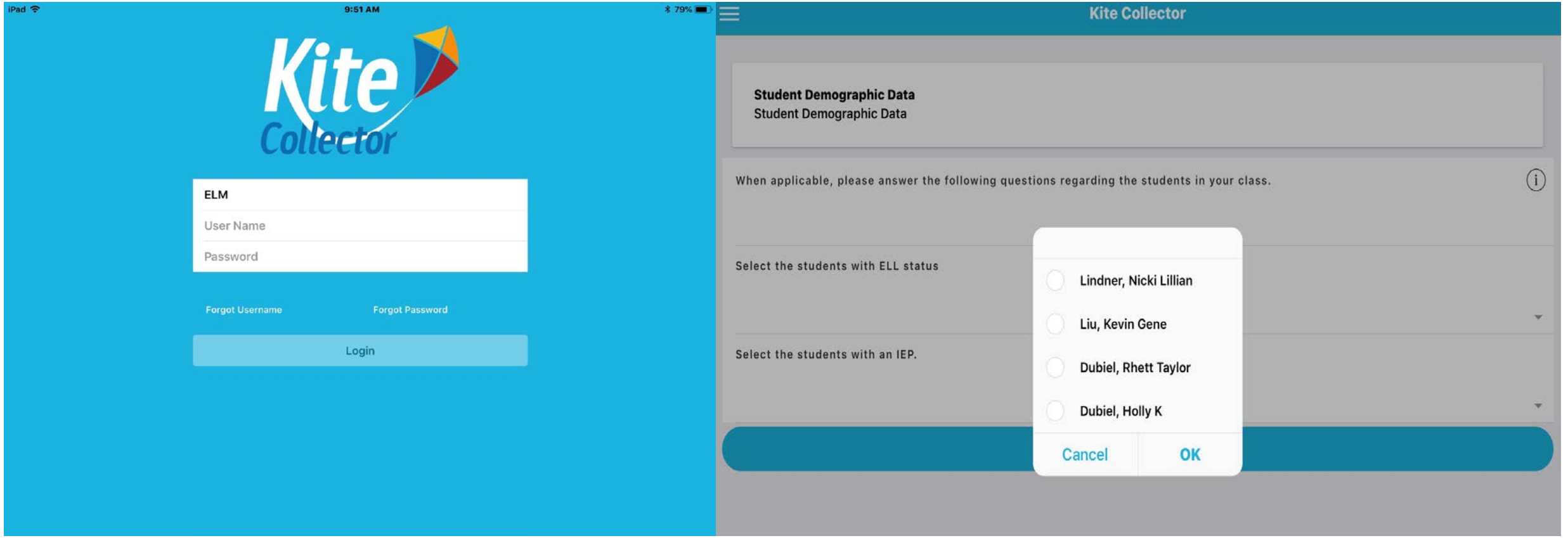
RQ 2: Are there differences in student performance for teachers who have high, medium, and low usage of the ELM units?

- Kite Collector Usage Survey
- Determination of usage categories (i.e., high, medium, low) to occur after data compiled
- ANCOVA used to examine relationship of teacher usage of ELM units and student performance

KITE collector

- Password required application on an ios or Android device
- Data is stored on a server for ELM
- Teachers are only able to view their students when logged in to Kite Survey Solutions.

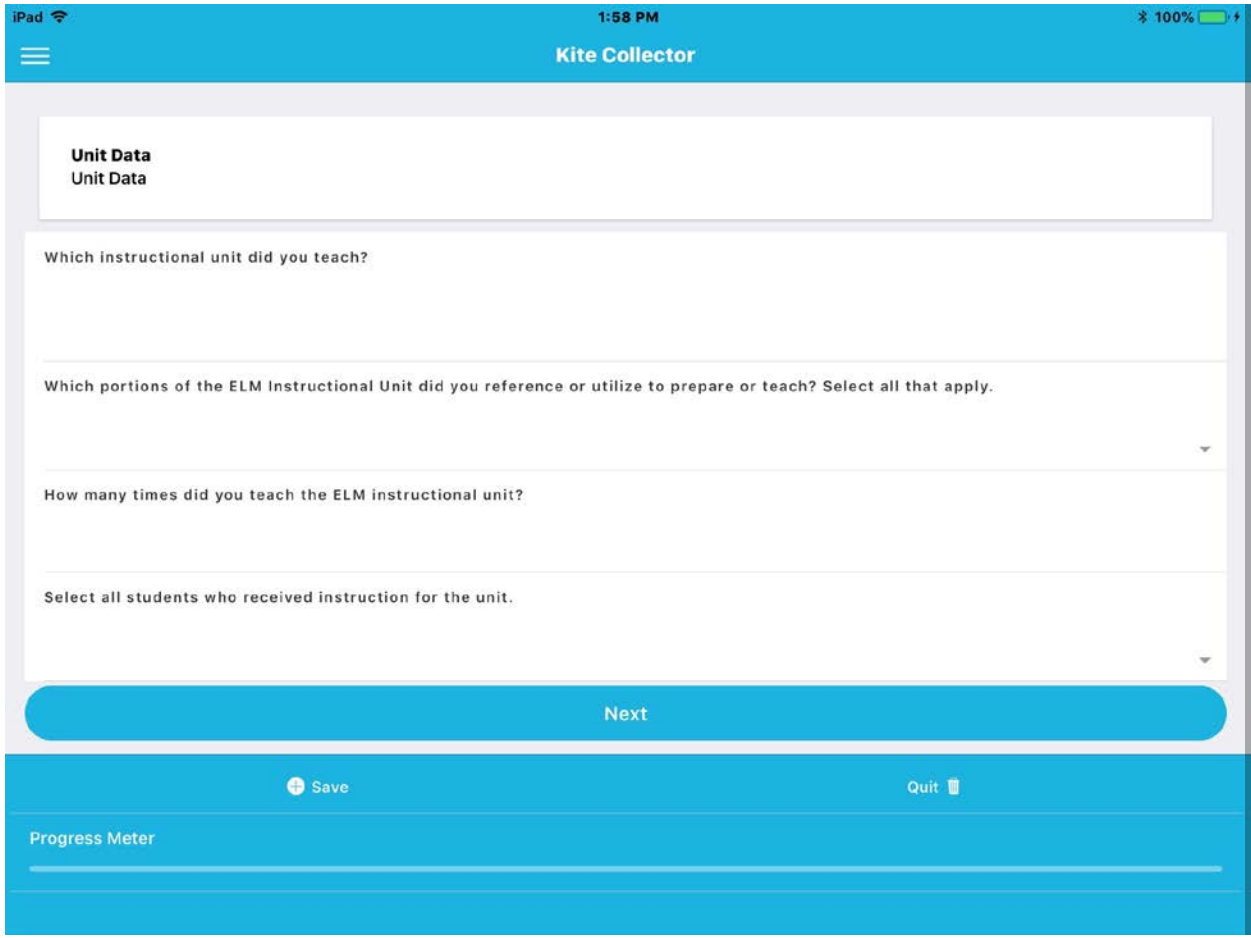
Kite Collector App

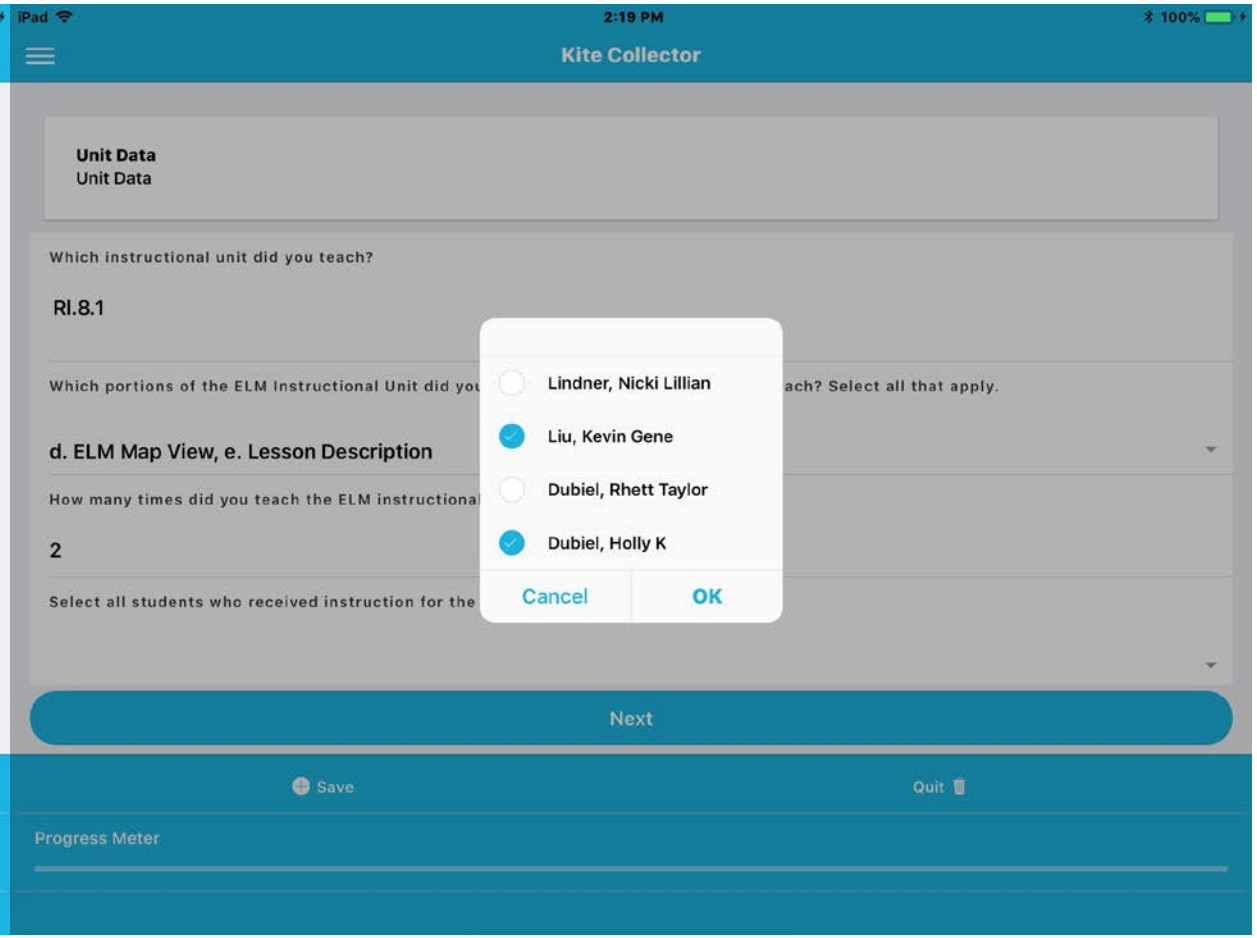


Student Demographic Report

Observer Name	Observation Status	Observation Start DateTime	Observation End DateTime	Question Name	Question Type	Response
Wetmore Holly	COMPLETE	8/27/2018 9:48	8/27/2018 9:49	Select the students with ELL status. If no students have ELL status, leave the question blank.	MULTIPLECHOICE	
Wetmore Holly	COMPLETE	8/27/2018 9:48	8/27/2018 9:49	Select the students with an IEP. If no students have an IEP, leave the question blank.	MULTIPLECHO	10,191,020
Liu Kevin	COMPLETE	8/27/2018 9:50	8/27/2018 9:50	Select the students with ELL status. If no students have ELL status, leave the question blank.	MULTIPLECHO	102,019,751,810,201,000,000,000,000,000
Liu Kevin	COMPLETE	8/27/2018 9:50	8/27/2018 9:50	Select the students with an IEP. If no students have an IEP, leave the question blank.	MULTIPLECHO	10,201,975,191,020,100,000

Kite Collector App





Unit Implementation Report

Participant Teacher Name	Questionnaire Name	Observation End DateTime	Question Name	Response
Holly Wetmore	Unit Data_Draft	8/27/2018 14:06	Which instructional unit did you teach?	Ri.4.2
Holly Wetmore	Unit Data_Draft	8/27/2018 14:06	Which portions of the ELM Instructional Unit did you reference or utilize to prepare or teach? Select all that apply.	ELM Map View,Formative Assessment Questions,Student Activity
Holly Wetmore	Unit Data_Draft	8/27/2018 14:06	How many times did you teach the ELM instructional unit?	2
Holly Wetmore	Unit Data_Draft	8/27/2018 14:06	Select all students who received instruction for the unit.	1,017,101,810,191,020

ELM Research Year 4

Potential Exploratory Research Question 3:

Are there differences in student performance for teachers who have participated in the ELM project for 1-2 years and 3 years?

ELM Research Timeline

August 2018	Data sharing agreements established
Sept 2018-May 2019 (monthly)	Implementation data collected
Fall 2018	Data obtained from states (baseline and demographic)
Winter 2019	Propensity score matching
Summer 2019	2018-19 assessment data obtained from states
Fall 2019	Analyses conducted and research report written

Reactions and Questions

- What questions do you have about the proposed research?
- What concerns do you have about the research that is being proposed?
- What challenges do you anticipate may be encountered in collecting the data? What solutions should be considered to address the challenges?

ELM Research Year 4

Research Question 1:

Does the learning maps-based system of online formative assessment supports and materials improve student performance? (**Stated in proposal)**

Are there differences in student performance for students experiencing the intervention and a control group of students? **(Operationally defined)**

ELM Research Year 4

Research Question 2:

Are there differences in student performance for teachers who have high, medium, and low usage of the ELM units?

ELM Research Year 4

Potential Exploratory Research Question 3:

Are there differences in student performance for teachers who have participated in the ELM project for 1-2 years and 3 years?

Data sharing agreements

- Created per AAI-approved protocols
- Completed for WI and KS, pending for AK and MO
- Achievement data sets coming from state agencies
- Implementation data sets from teachers

Communication with teacher participants

- Notifications – sent via Mail Chimp (ELM Insights Newsletter)

- Written directions and a video tutorial will be provided for getting started
- Participants will receive monthly reminders about submitting Unit Implementation Data

September 4

Notification of upcoming data collection

September 21

Welcome Letter from Survey Solutions and the directions to get set up

October 15

Deadline for submitting student demographic data

Visualization research

Research questions

Analyses

Individual research

Presentations and active funding requests

Pathways for Curricular Design: a collaborative curriculum development approach using learning maps (PCD)

- Proposal submitted for the 2018 Supporting Effective Educator Development(SEED) Program

- Project Goal: The goal of the PCD project is to increase teacher effectiveness in three ways: 1) Increase teacher understanding of how students learn; 2) Improve teacher content knowledge; and3) Train teachers to understand, identify, and use principles of good curricular design.

- Key Partner Organizations: This project is a collaboration between the Center for Assessment and Accountability Research and Design (CAARD) at the University of Kansas and CenterPoint Education Solutions (CPES), and five contiguous midwestern state education agencies (Missouri, Kansas, Arkansas, Oklahoma, and Nebraska), EdMetric LLC, and Education Testing Services (ETS)

EIR grant – WALM

- Writing Acquisition Learning Model: A Roadmap for Cognitive-Based Writing Instruction
  - **Absolute Priorities**: **Demonstrating a Rationale and Field Initiated Innovations**
    - Input from Wichita teachers across disciplines and grades will create a writing model that best serves students' readiness for college and career
    - Wichita teachers in grades 2–12 will guide and deliver specific, actionable instructional supports and interventions
- Contribute to research about the cognitive processes students use when communicating ideas effectively through writing
- Expand on the ELM project in the area of written communication

Other ideas for further research

- High school subject-specific maps (algebra)
- Intersection between reading comprehension and math competency (elementary grades)
- Creation and validation of student facing resources

Completed Presentations

2016-2017	2017-2018
National Council of Teachers of Mathematics	National Council on Measurement in Education
National Council on Measurement in Education	Special Conference on Classroom Assessment
Council of Chief State School Officers/ National	Kansas Association for Teachers of Mathematics
Conference on Student Assessment	Missouri Council of Teachers of Mathematics
KU Center for Research on Learning Conference	Auburn-Washburn Mini Conference
	National Council of Teachers of Mathematics
	TODOS: Mathematics for All
	Council of Chief State School Officers/ National
	Conference on Student Assessment
	KU Summer Strategies Conference
	KU Center for Research on Learning Conference

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INSIGHTS FOR INSTRUCTION

KU ACHIEVEMENT & ASSESSMENT INSTITUTE
The University of Kansas

Neal Kingston
Director of AAI
Principal Investigator
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KU THE CENTER FOR ASSESSMENT AND ACCOUNTABILITY RESEARCH AND DESIGN
The University of Kansas

Marianne Perie
Director of CAARD
Co–Principal Investigator
University of Kansas
mperie@ku.edu

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