



## **Professional Learning in Math Study**

**Online Journal Robust Findings**

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# STUDY PURPOSE



## How can professional learning be used to support educators in implementing math curriculum?

There is a need to better understand educator experiences and perspectives related to professional learning.

This study explores how professional learning can and should be used to support educators in implementing math curriculum. This includes how things currently look in practice, what is working well, what could work better, and any feedback educators have for curriculum-based professional learning providers.

**Note:** The work in this deck is setting up for additional research in Phase II with focus groups.

### Key Learning Questions:

- How do educators characterize recent experiences implementing a math curriculum?
- How do educators wish they had been or would be supported with implementing their math curriculum?
- What recommendations do educators have for how professional learning developers could improve the professional learning available to support curriculum implementation?

# STUDY CONTEXT

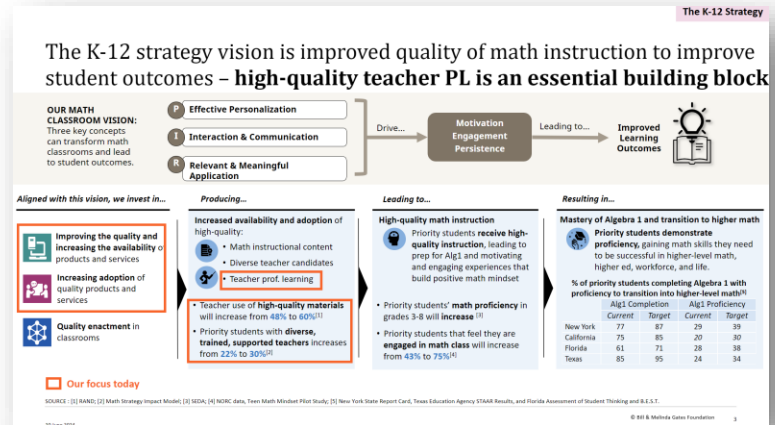


How can we ensure that findings are contributing to a larger context of an investment in HQIM and high-quality PL?

The foundation's hypothesis is that high-quality professional learning is an essential element of improved math instruction and student outcomes.

ResultsLab & the Community Insights Network have supported the 2024 HQIM-PL strategy by conducting a study on Curriculum-Based Professional Learning (CBPL).

To ensure maximum usability of this data, we reviewed insights from other data collection efforts such as AMES American Mathematics Educator Study: [Teacher Survey](#) & [School Leader Survey](#), [RPPL Studies](#), and [market research by EdSolutions](#) on the K-12 PL market. Through this review, we identified opportunities to go deeper and elevate additional information on perceptions of CBPL specifically.



# KEY STUDY INSIGHTS

Study Topic	Key Insights <sup>1</sup>
<p><b>Curriculum Implementation:</b> How educators characterize their experiences implementing their current math curriculum.</p>	<ul style="list-style-type: none"> <li>• <b>Level and extent of curriculum use:</b> Most respondents use their selected curriculum more often than other instructional materials with over half spending between 1-5 years implementing this curriculum.</li> <li>• <b>Curriculum implementation experience:</b> Overall, curriculum implementation experiences were positive or neutral for respondents. Satisfaction influences include differentiation ability, amount of practice problems, standards alignment, and ease of implementation.</li> <li>• <b>Curriculum modification:</b> While responses varied, most respondents reported neutral perceptions of their curriculum's modification abilities.</li> <li>• <b>Challenges to implementation:</b> Most common challenges included insufficient learning/planning time, limited resources and support, differing student needs, and lack of teacher buy in.</li> </ul>
<p><b>Experience with CBPL:</b> Educators' experiences with curriculum-based professional learning</p>	<ul style="list-style-type: none"> <li>• <b>Overall satisfaction:</b> Most respondents who received CBPL felt that the training was “mostly” comprehensive, relevant, and useful.</li> <li>• <b>Elements of highly satisfying CBPL:</b> Those who were highly satisfied with the CBPL they received had CBPL that was generally ongoing, delivered through multiple methods, and involved model lessons and curriculum workshops.</li> <li>• <b>Challenges with time constraints:</b> Having enough time to dedicate to CBPL was a significant challenge for most respondents due to competing priorities, juggling multiple responsibilities, and the timing of their CBPL.</li> </ul>
<p><b>Recommendations for CBPL:</b> Challenges implementing a new math curriculum and recommendations for future curriculum-aligned professional learning</p>	<ul style="list-style-type: none"> <li>• <b>Significance of time:</b> While 1-4 hours per month was often ideal, respondents report having less than 2 hours or no time at all for professional learning about curriculum implementation.</li> <li>• <b>Training topic interest areas:</b> Respondents express interest in professional learning topics such as model lessons, strategy workshops, and scaffolding learning progression, with a need for more focus on differentiation and tangible implementation methods, particularly in math curriculum training.</li> </ul>

<sup>1</sup>Key insights will be used to help facilitate deeper conversations in focus groups in Phase II of this study with practitioners who use Illustrative Math and Eureka Math to give further insights into what successful CBPL could look like with these specific providers.



# INSIGHTS



# CURRICULUM IMPLEMENTATION

*"There are a variety of methods to address student needs. In addition, I am able to supplement it with additional platforms and programs to enhance it."*

- Middle school teacher, California, implementing Illustrative Math

This section explores how educators characterize their experiences implementing their current math curriculum.

## Key Findings:

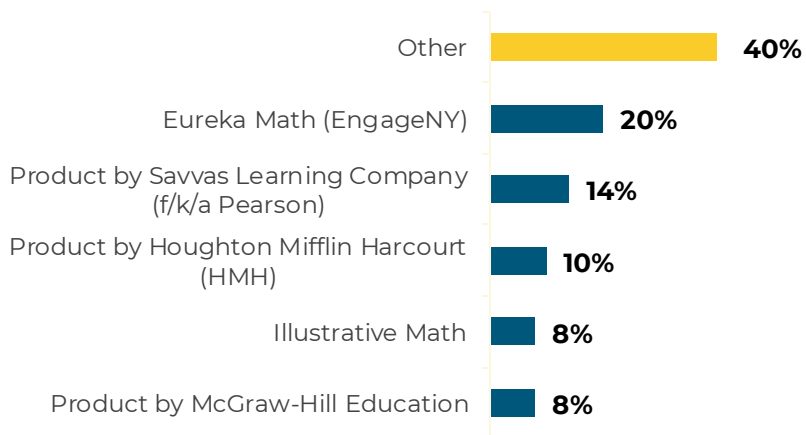
- **Level and extent of curriculum use:** Most respondents use their selected curriculum more often than other instructional materials, with over half spending between 1-5 years implementing this curriculum.
- **Curriculum implementation experience:** Overall, curriculum implementation experiences were positive or neutral for respondents. Satisfaction drivers include differentiation ability, amount of practice problems, standards alignment, and ease of implementation.
- **Curriculum modification:** While responses varied, most respondents ranked their curriculum between 5-8 out of ten for its ability to address specific student needs.
- **Challenges to implementation:** Most common challenges included insufficient learning/planning time, limited resources and support, differing student needs, and lack of teacher buy in.



## Eureka Math and Savvas Learning Company were frequently selected curricula, but many respondents reported using math curricula not listed.

When respondents selected Other, most of their responses were unique counts, with only three curriculums named more than once (iReady, other forms of Eureka Math, and Bridges). The full list of other math curriculums used by respondents is included below.

### What math curriculum are you implementing at your school? (n=50)



#### Other Math Curriculums:

- iReady (4)
- Other Eureka Math (Eureka Math Squared or Eureka Texas) (3)
- Bridges (2)
- Abeka by Abeka Book Publishers
- GoMath
- Hands on Equations by Borenson Math
- iLearn
- Math in Focus Singapore
- Numeracy Project
- Open Up Resources
- Origo
- Ready Math
- STEMScopes by Accelerate Learning and Sharon Wells
- TransMath

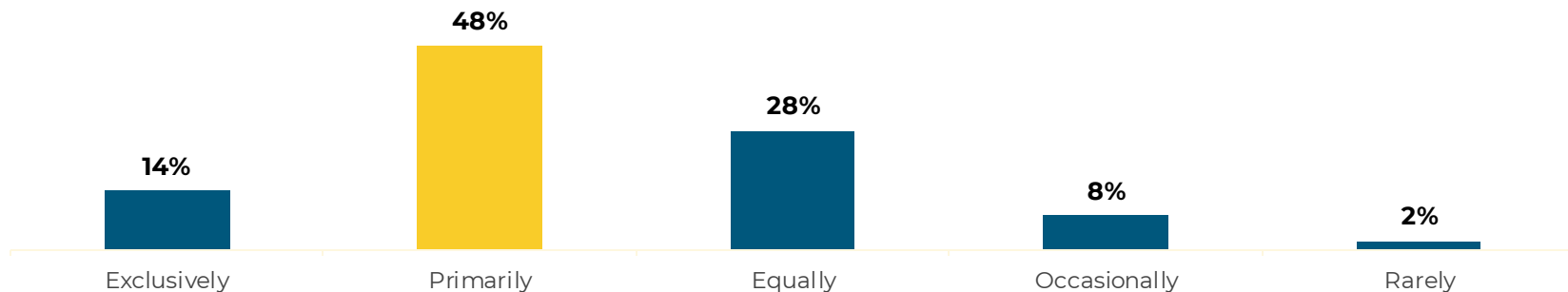




## Most respondents use their selected curriculum more often than other instructional materials.

More than half of respondents (62%) used their selected curriculum exclusively or as their primary instructional material, and over a quarter (28%) use the selected curriculum equally as much as other instructional materials.

**Pick the response that best describes how you use your curriculum in relationship to other curriculums or supplemental instructional materials. (n=50)**

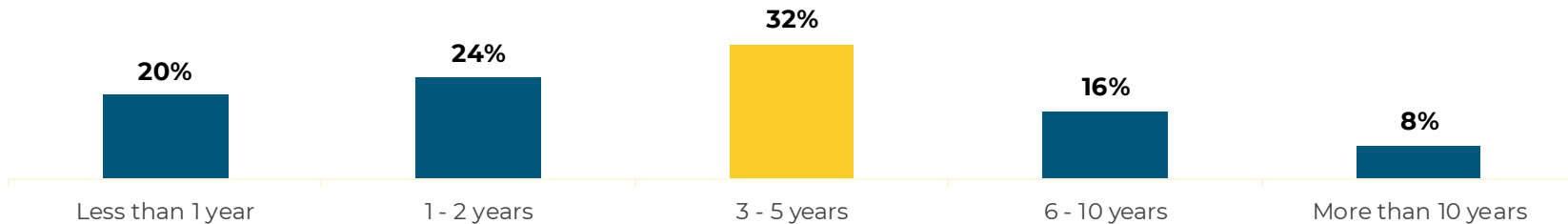




## Respondents varied in length of time spent implementing curriculum, with over half spending between 1-5 years.

Most respondents (76%) have been implementing their curriculum for less than 5 years, with more than half of responses (56%) in the range of 1-5 years.

### How long have you been implementing your curriculum? (n=50)





## The majority of curriculum implementation experiences (64%) have been positive.

Most respondents (64%) felt their experience implementing their curriculum was extremely or mostly positive. 10% of respondents felt their experience was mostly or extremely negative.

**Would you describe your experience implementing your curriculum as ... (n=50)**

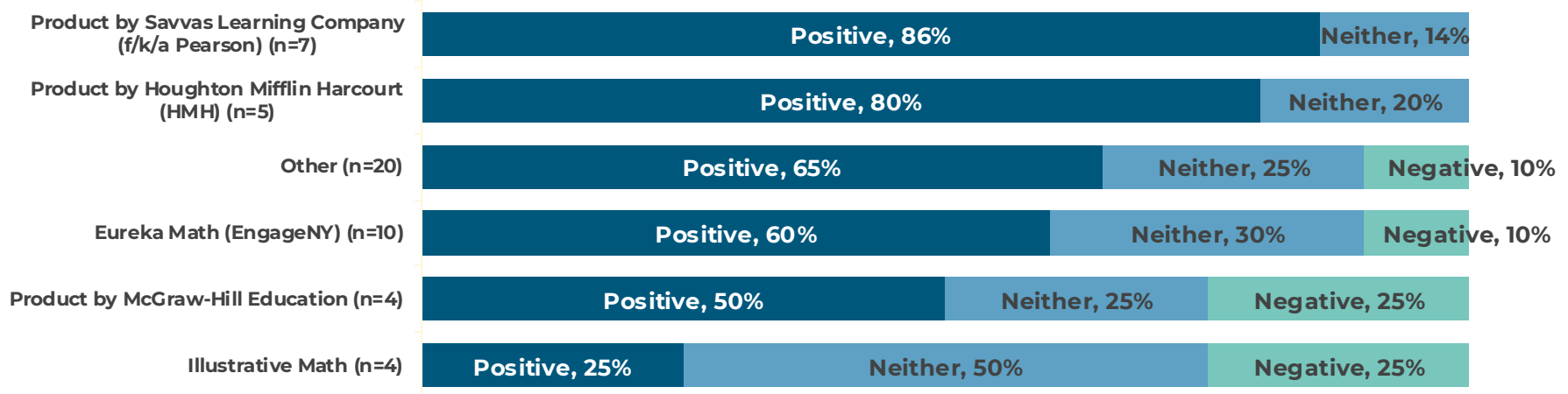




**Going Deeper |** Implementation experiences by curriculum varied, though Savvas, HMH, and Eureka Math users most frequently expressed positive experiences.

Curriculums with the most positive implementation experiences included Savvas Learning Company (86%), Houghton Mifflin Harcourt (80%), and Eureka Math (60%). Respondents using other curriculums also had majority positive experiences (65%). Negative experiences were most common with Illustrative Math (25%) and McGraw-Hill (25%).

**Would you describe your experience implementing your curriculum as ... (n=50)**





## Respondents show that key influences on perception of curriculum are differentiation ability, the amount of practice problems, standards alignment, and ease of implementation.

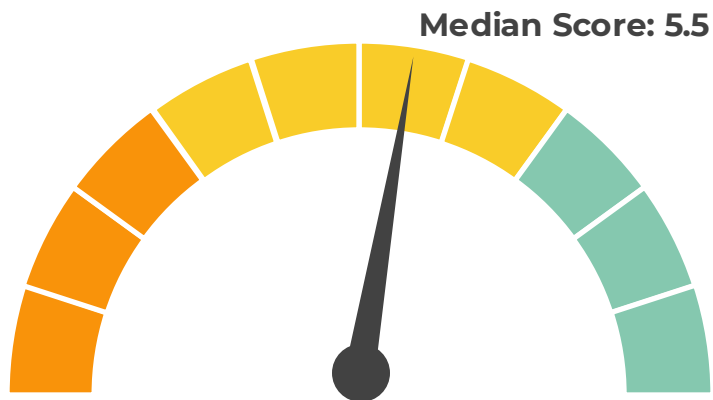
Rating	%	Would you describe your experience implementing your curriculum as ... In a few sentences, please elaborate on your overall experience implementing this curriculum. (n=49)
Extremely Positive	14%	"The teacher manual contains <b>differentiation</b> notes for the teacher to consider when presenting the lesson. Additionally, each lesson provides opportunities for student to engage in math discourse, to share ideas of their thinking process." – Elementary school teacher, Louisiana, implementing Eureka Math (EngageNY)
Mostly Positive	50%	"It is a good starting point but there is not enough resources for scaffolding <b>the standard and it is not to the rigor of the State Test.</b> " – Elementary school instructional coach, Texas, implementing Product by Savvas Learning Company (f/k/a Pearson)
Neither Positive Nor Negative	26%	"[Illustrative Math] is a great curriculum but is <b>difficult for students</b> who struggle in reading. It is very wordy." – Middle school teacher, Michigan, implementing Illustrative Math
Mostly Negative	8%	"There are <b>not enough problems</b> for students to practice the skills they are learning. For students with disabilities, there is too much language used and most of the problems are word problems." – Elementary school teacher, New York, implementing iReady Classroom Math by Curriculum Associates
Extremely Negative	2%	"No Spiral review! Assessments address more than the standard taught. My students have significant holes in their math knowledge base/automaticity. <b>I have to supplement</b> to fill in and provide practice." – Elementary school teacher, Alaska, implementing Ready Math



## While responses varied, most respondents reported neutral perceptions of their curriculum's modification abilities.

**On a scale of 1 to 10, how well does the following statement describe your experience with your curriculum? (n=49)**

*My curriculum excels at fitting with or has modifications to address specific student needs.*



0 = This statement is not at all true of my curriculum.  
10 = This statement aligns perfectly with my curriculum.

When asked to state how true a statement was about their curriculum, most respondents (78%) ranked their curriculum between 5-8 out of ten for its ability to address specific student needs. This indicates that many respondents only feel moderately satisfied with how well their curriculum can be modified.



# Curriculum implementation was most often challenged by needing more time for learning/planning, limited resources/support, student needs, and teacher buy in.

Reflect on what it is like to implement a new math curriculum. What are some challenges you and your peers face implementing a new math curriculum? (n=50)

## Learning & Planning Time

*“Time to review the materials and determine if the scope and sequence is appropriate.”*

-Elementary school teacher, Florida

## Lack of Support

*“Peers and I face struggles with **limited resources, inadequate training, and fears** of deviating from familiar routines, making it a daunting and overwhelming experience.”*

- Middle school instructional coach, Texas

## Student Needs

*“We find it difficult to always stay on pace with curriculum maps because of **school interruptions** and the differences in our class depending on **abilities levels.**”*

- Elementary school teacher, Tennessee

## Teacher Buy-In

*“It is a new challenge because a lot of teachers are used to their **own method.**”*

- Elementary school teacher, Texas

## Notable Patterns Within Responses

- **Teacher Buy-In:** Even among those with positive experiences, this aspect was often still seen as lacking.
- **Lack of Support:** Frequently mentioned by newer teachers.
- **Lack of Learning & Planning Time:** Still frequently noted by those with positive or neutral experiences.

Minor Theme:

- **Issues with Scope and Sequencing:** While not a major theme, commonly cited challenge among experienced teachers.



## EXPERIENCE WITH CURRICULUM-BASED PROFESSIONAL LEARNING

*"Sometimes curriculum specialists and companies want to WOW you with everything it offers and it's just too much all at once, teachers shouldn't feel like they have to be an expert at it after one professional development session. I have found coaching cycles and watching peer teachers to be the best types of PD for teachers."*

-Elementary school instructional coach, Virginia

This section explores educators' experiences with curriculum-based professional learning.

### Key Findings:

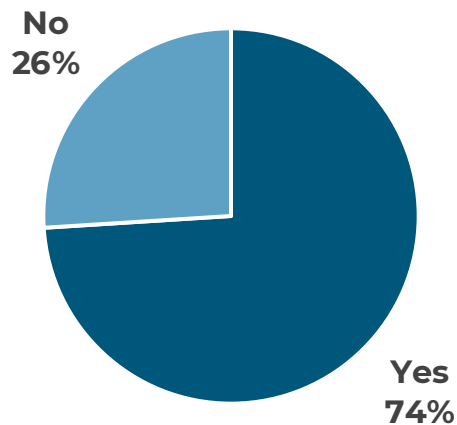
- **Overall satisfaction:** Most respondents who received CBPL felt that the training was “mostly” comprehensive, relevant, and useful.
- **Elements of highly satisfying CBPL:** Those who were highly satisfied with the CBPL they received had CBPL that was generally ongoing, delivered through multiple methods, and involved model lessons and curriculum workshops.
- **Challenges with time constraints:** Having enough time to dedicate to CBPL was a significant challenge for most respondents due to competing priorities, juggling multiple responsibilities, and the timing of their CBPL.





The majority of respondents (74%) received curriculum-based professional learning.

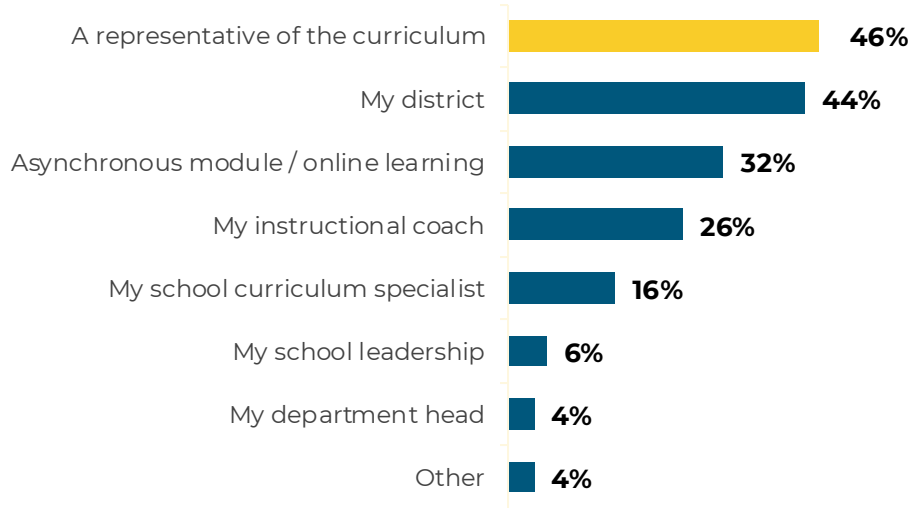
Have you received or engaged with curriculum-based professional learning of your current math curriculum?  
(n=50)





**For many respondents, CBPL was delivered by a representative of the curriculum or the district. Middle school educators were more likely to report receiving CBPL from asynchronous modules/online learning.**

### CBPL Delivered By:<sup>1</sup> (n=37)



### Cross Cut by Grade Band<sup>2</sup>

- Most elementary school educators received CBPL from a representative of the curriculum (59%) or their district (59%).
- Most middle school educators received CBPL from an asynchronous module/online learning (71%) or from a representative of the curriculum (71%).

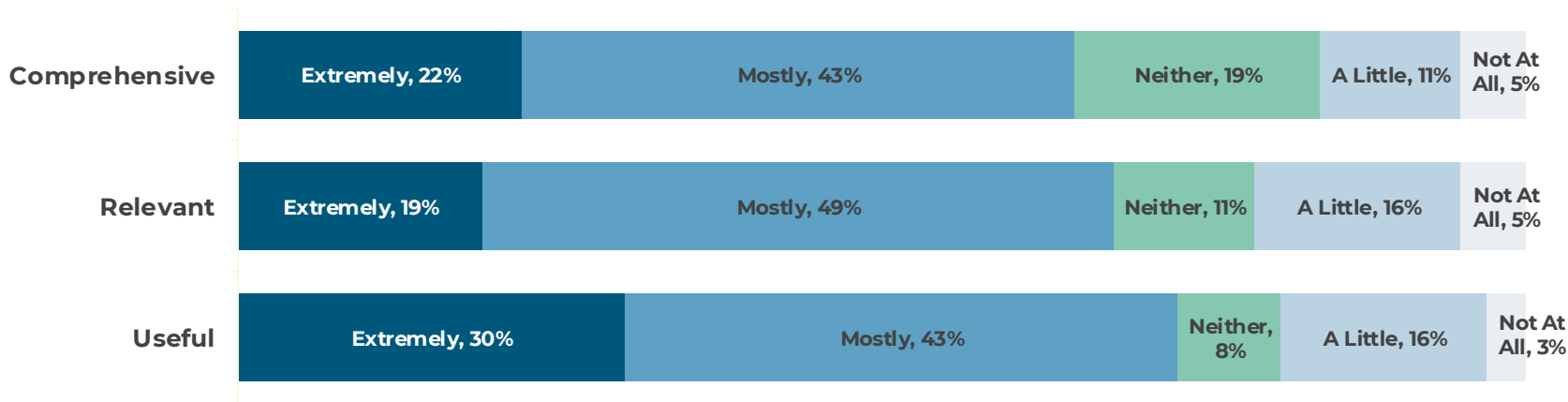
<sup>1</sup> No respondents reported receiving CBPL from external professional learning service providers or local university partners.

<sup>2</sup> ResultsLab performed crosscut analysis of this question by grade band. The full analysis is not displayed on this slide; however, the results of the analysis are included in the bullet points on the right-hand side of the slide.



Respondents indicated that the CBPL they received was “mostly” comprehensive, relevant, and useful. Focus groups may go deeper to explore what makes comprehensive, relevant, and useful CBPL.

How comprehensive,<sup>1</sup> relevant,<sup>2</sup> and useful<sup>3</sup> was the curriculum-based professional learning you received? (n=37)



<sup>1</sup>Comprehensive: Extensive and thorough training on curriculum implementation as compared to professional learning that is brief or insufficient in depth.

<sup>2</sup>Relevant: Recipients feeling that the professional learning on the curriculum directly pertained to implementation in the classroom and acknowledged real-life challenges and solutions to implementation.

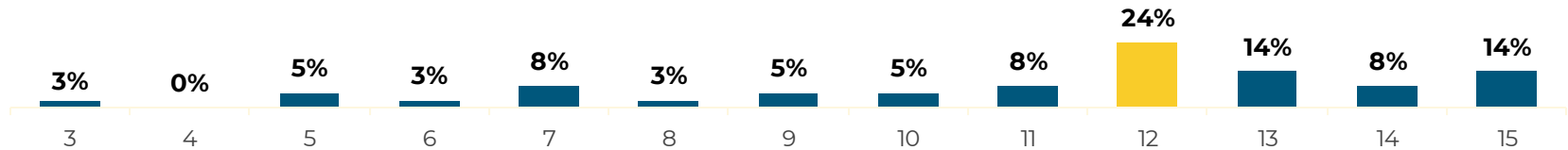
<sup>3</sup>Useful: Recipients feeling that the professional learning left them with tools, tips, and tactical skills for implementing the material in the classroom immediately.



## Most respondents (73%) who received CBPL had an overall satisfaction score of 10 or higher on a scale of 0 to 15.

Based on responses to the questions, “How comprehensive/relevant/useful was your curriculum-based professional learning?” an overall satisfaction score was calculated. On a scale of 0 to 15, many educators scored their CBPL as a 12, and 73% had a score of 10 or above.

**Distribution of Overall Satisfaction Scores<sup>1</sup> (n=37)**



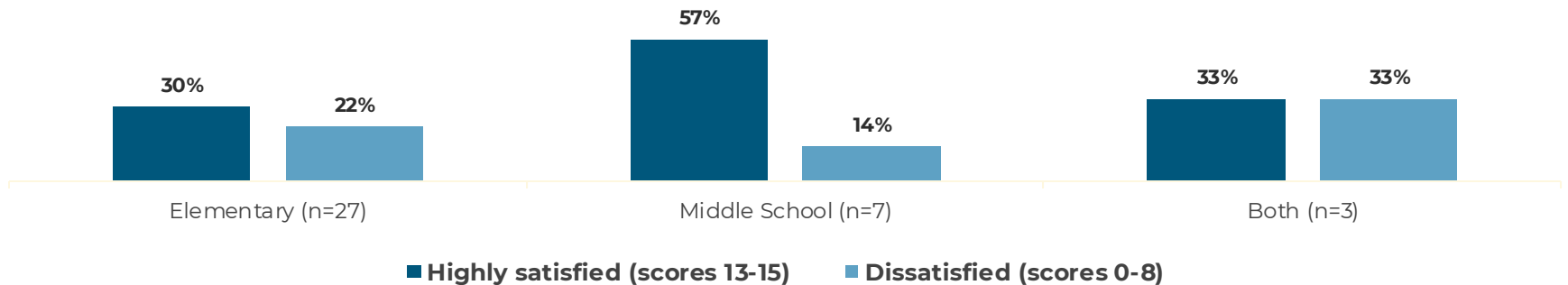
<sup>1</sup> The satisfaction score is the sum of ratings across the questions, “How comprehensive/relevant/useful was your curriculum-based professional learning?” “Extremely” responses received a score of 5. “Mostly” responses received a score of 4. “Neither” responses received a score of 3. “A Little” responses received a score of 2. “Not At All” responses received a score of 1, creating a scale of 0 to 15.



## Going Deeper | More middle school educators were highly satisfied with their CBPL compared to elementary school educators.

Many (57%) middle school educators scored their CBPL highly with scores between 13 and 15; in comparison, 30% of elementary school educators were highly satisfied with their CBPL. More elementary school educators (22%) were dissatisfied with their CBPL compared to middle school educators (14%).

**Distribution of Overall Satisfaction Scores**  
*Cross cut by grade level<sup>1</sup>*

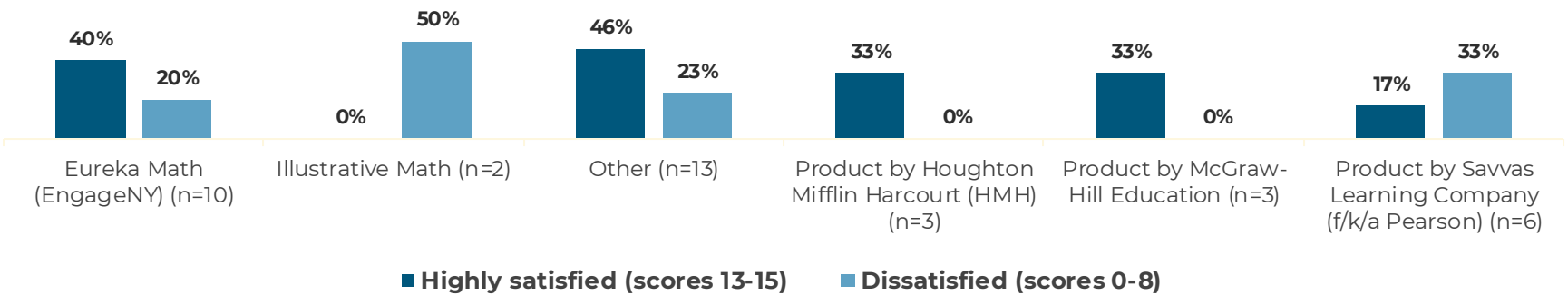




## Going Deeper | Many respondents were highly satisfied with the CBPL they received for Eureka Math and “Other” curriculum.

Many respondents scored the CBPL they received for Eureka Math (40%) and “Other” curriculum (46%) between 13 and 15, indicating that they were highly satisfied. In contrast, some respondents were dissatisfied with the CBPL they received for Illustrative Math (50%) and products by Savvas Learning Company (f/k/a Pearson) (33%), scoring these between 0 and 8.

**Distribution of Overall Satisfaction Scores** (n=37)  
*Cross cut by curriculum*





**Going Deeper** | Factors that contribute to satisfaction with CBPL include being taught through multiple methods, receiving ongoing training, delivery by a representative of the curriculum, and model lessons.

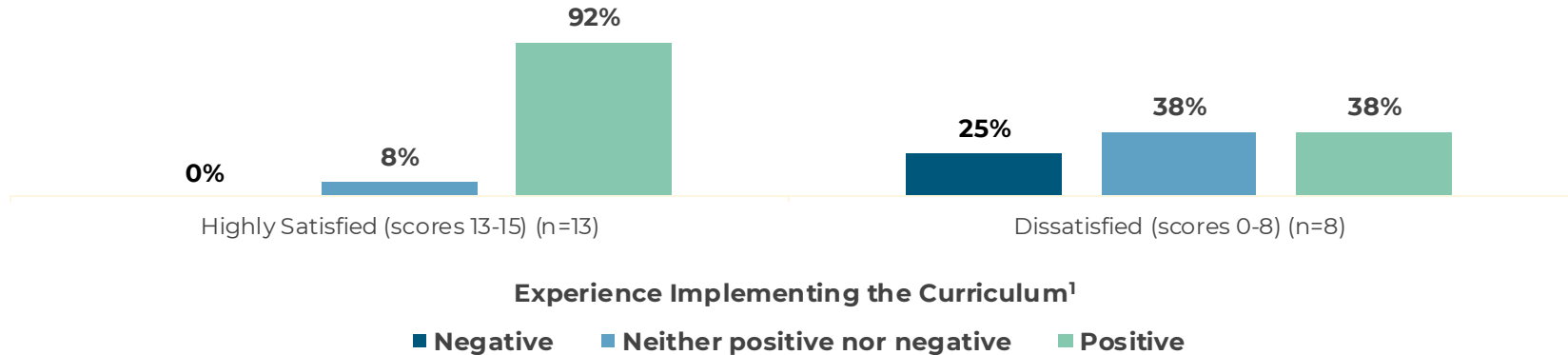
	Highly Satisfied Scores 13-15 (n=13)	Dissatisfied Scores 3-8 (n=8)
Delivery	<ul style="list-style-type: none"> <li>Most (77%) CBPL was delivered through <b>multiple methods</b>.</li> <li>Most CBPL was delivered by a representative of the curriculum (64%) or an instructional coach (62%).</li> </ul>	<ul style="list-style-type: none"> <li>Most (63%) CBPL was delivered through <b>only one method</b>.</li> <li>Most CBPL was delivered by the district (50%).</li> </ul>
Teaching Approach	<ul style="list-style-type: none"> <li>54% <b>began with an overarching explanation of theory and goals</b> of the curriculum.</li> </ul>	<ul style="list-style-type: none"> <li>63% <b>dove right into content on how to implement the curriculum</b>.</li> </ul>
Components	<ul style="list-style-type: none"> <li>Many received <b>model lessons</b> (100%), curriculum workshops (85%), and feedback and coaching (85%).</li> <li>Most (61%) rated the CBPL components they received as “extremely useful.”</li> </ul>	<ul style="list-style-type: none"> <li>Many received <b>Professional Learning Communities</b> (88%), curriculum workshops (63%), and feedback and coaching (63%).</li> <li>Many (50%) rated the CBPL components they received as “a little useful.”</li> </ul>
Strategies	<ul style="list-style-type: none"> <li>100% of CBPL <b>covered at least 2 or more concepts/strategies</b>.</li> <li>Most received training on curriculum pacing (92%) and support with math concepts (85%).</li> </ul>	<ul style="list-style-type: none"> <li>Most (63%) CBPL <b>covered only one concept/strategy</b>.</li> <li>Most received training on curriculum pacing (75%).</li> </ul>
Timing	<ul style="list-style-type: none"> <li>Most (85%) received <b>ongoing</b> CBPL training.</li> </ul>	<ul style="list-style-type: none"> <li>Most (63%) received <b>initial</b> CBPL training.</li> </ul>



## Going Deeper | Findings suggest that if educators have better experiences with CBPL, they're more likely to be happier with their experience implementing their curriculum as a whole.

Most respondents (92%) who were highly satisfied with their CBPL (scores 13-15) had positive experiences implementing their curriculum. Respondents who were dissatisfied with their CBPL (scores 0-8) had mixed experiences implementing their curriculum, with many respondents reporting negative (25%) or neutral (38%) experiences.

**Distribution of Overall Satisfaction Scores**  
*Cross cut by experience implementing the curriculum*



<sup>1</sup> Negative includes "extremely negative" and "mostly negative". Positive includes "extremely positive" and "mostly positive".

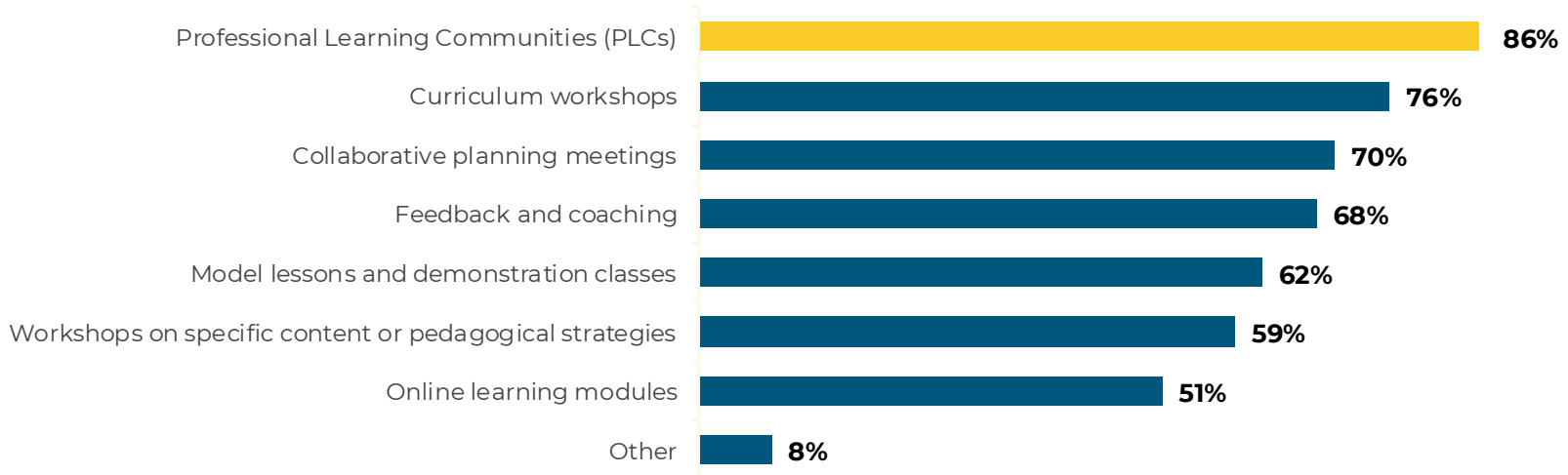




## Most respondents who received CBPL received Professional Learning Communities, curriculum workshops, and collaborative planning meetings.

Most respondents reported receiving PLCs, curriculum workshops, and collaborative planning meetings in their CBPL. Most respondents (70%) received 5 to 8 components. No respondents reported receiving only one component.

### Which best characterizes the types of CBPL you received? (n=37)

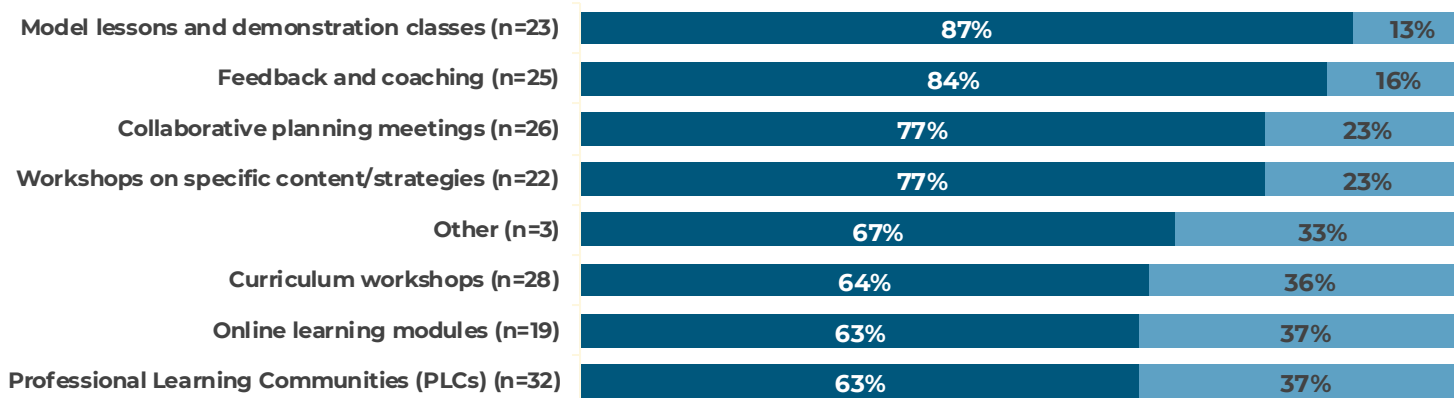




**Going Deeper** | Respondents reported that model lessons, feedback, and coaching were extremely useful while online learning modules and PLCs were less useful. Focus groups will explore these trends.

Most respondents who received model lessons and demonstration classes and/or feedback and coaching rated them as more useful. Some respondents who received online learning modules and/or Professional Learning Communities (PLCs) rated them as less useful.

### Which best characterizes the types of CBPL you received?<sup>1</sup> (n=37)



#### **Potential Further Exploration:**

Why are certain types of CBPL, such as PLCs, widely used but rated as less useful by educators?

■ More useful ("extremely useful" or "moderately useful") ■ Less useful ("a little useful" or "not useful at all")

<sup>1</sup> ResultsLab utilized the same scale as PRL 724 in the 2023 AMES Teacher survey (RAND, 2023).



**Data Validation** | In response to study findings, respondents on Slack reported that PLCs are useful spaces to collaborate and learn from others; they also suggested improvements, such as fostering open communication and having skilled facilitators.

Respondents (n=8) on Slack shared that PLCs are useful, particularly when they focus on a specific curriculum or geographic area (e.g., the county).

Respondents said that PLCs allow educators to collaborate with colleagues and learn from each other's experiences. However, PLCs are less useful when they have a wide range of participants who all use different curriculum.

**To improve PLCs, respondents recommended:**

- Fostering a culture of open communication, reflection, and feedback
- Having skilled facilitators lead PLCs
- Focusing on the curriculum, including discussing instructional strategies, differentiation, and assessment data
- Providing more time for group discussion

*"[PLCs] need to be a safe place for educators to ask questions pertaining to the curriculum and includes strategies that educators can use to reach all students."*

- Middle school teacher, Tennessee



**Data Validation** | In reviewing study findings on Slack, respondents shared that online learning is somewhat useful, noting its benefits are convenience and accessibility; however, they felt a mix of online and offline training could be beneficial.

Respondents (n=8) on Slack shared that online learning modules are sometimes useful.

Respondents report that online training is convenient, accessible and customizable. It can also be helpful as a first introduction to a new curriculum. However, respondents said there's less accountability with online training, and some respondents highlighted the need for a mix of online *and* offline training.

**To improve online training, respondents recommended:**

- Following up online training with forums where educators can ask curriculum providers and/or their peers questions
- Making online training more engaging, for example, using live presenters and breakout rooms and/or focusing on practical strategies for improvement
- Using educator feedback to improve the training experience

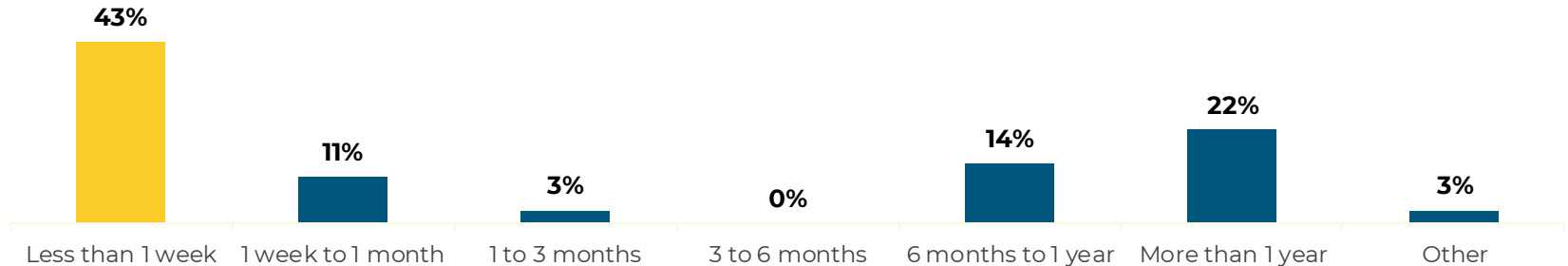
*“Online training is great for me because of my busy life, I am able to watch it at my convenience. Online training can be improved by having practical strategies included and showing ‘how to’ ideas.”*

- Elementary school teacher, Illinois



## For most respondents who received curriculum-based professional learning, CBPL lasted less than 1 week.

How long did the curriculum-based professional learning last? (n=37)



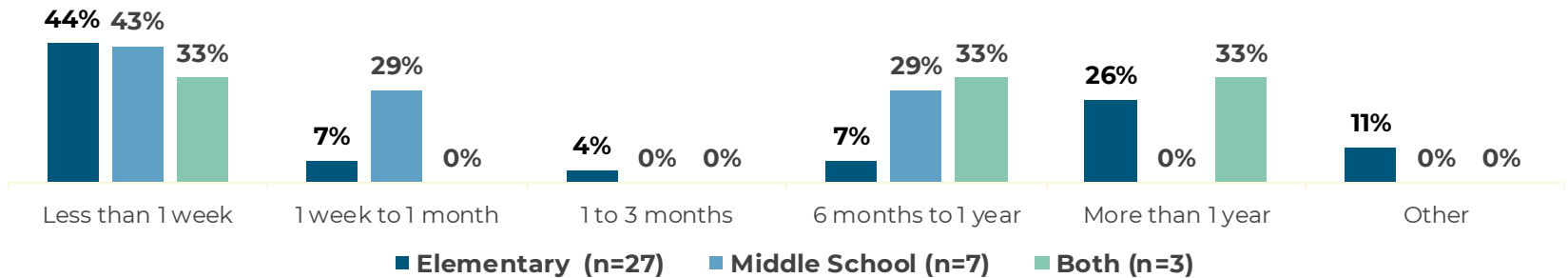
Respondents who selected “Other” reported that their CBPL lasted a half day, several times per year, and indefinitely.



## Going Deeper | Many elementary and middle school educators spent less than one week receiving curriculum-based professional learning.

Most elementary school educators spent less than 1 week (44%) or more than 1 year (26%) receiving CBPL. Many (43%) middle school educators also spent less than one week receiving CBPL.

### How long did the curriculum-based professional learning last? *Cross cut by grade level'*



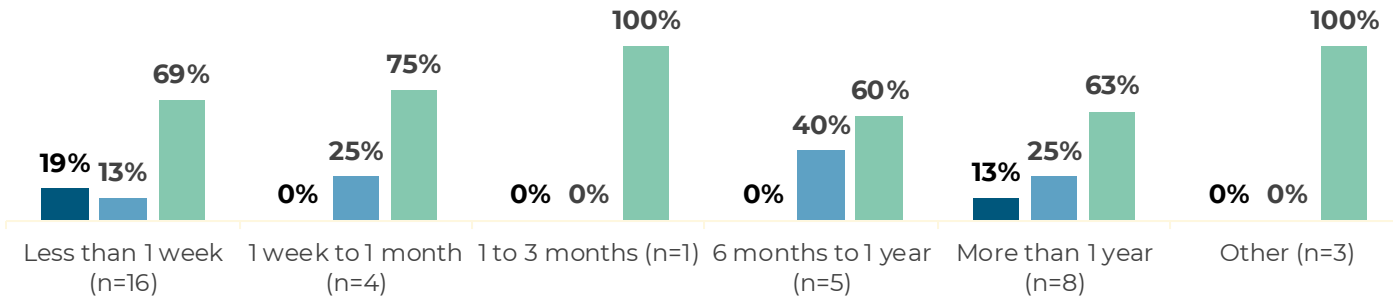


## Going Deeper | Respondents who received less than 1 week of CBPL or more than 1 year of CBPL had both negative and positive experiences implementing their curriculum.

Respondents who received less than 1 week or more than 1 year of CBPL had mixed positive and negative experiences implementing their curriculum. In contrast, respondents who received 1 week to 1 month; 1 to 3 months; or 6 months to 1 year of CBPL reported only neutral or positive experiences.

### How long did the curriculum-based professional learning last?

*Cross cut by experience implementing the curriculum*



#### **Promising Recommendation:**

The ideal duration for CBPL may lie between one week to one year for many educators.

#### Experience Implementing the Curriculum<sup>1</sup>

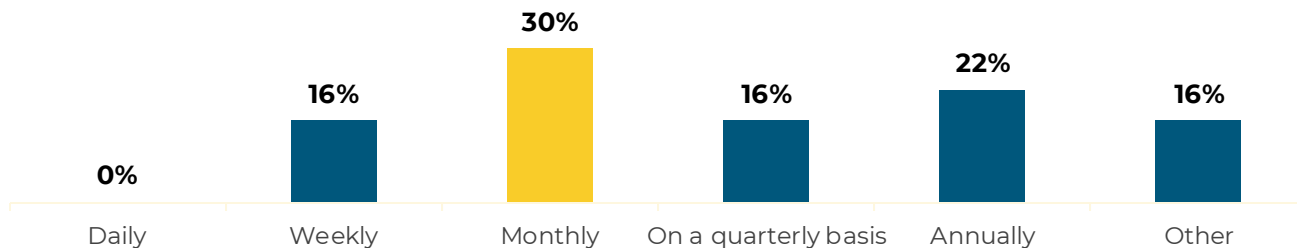
■ Negative ■ Neither positive nor negative ■ Positive

<sup>1</sup> Negative includes “extremely negative” and “mostly negative”. Positive includes “extremely positive” and “mostly positive”.



## Many respondents who received curriculum-based professional learning had CBPL monthly or annually.

How often did you receive curriculum-based professional learning? (n=37)



### Other:

- 1 time
- 2 days
- As needed online
- Maybe twice a year
- Once
- Semi annually



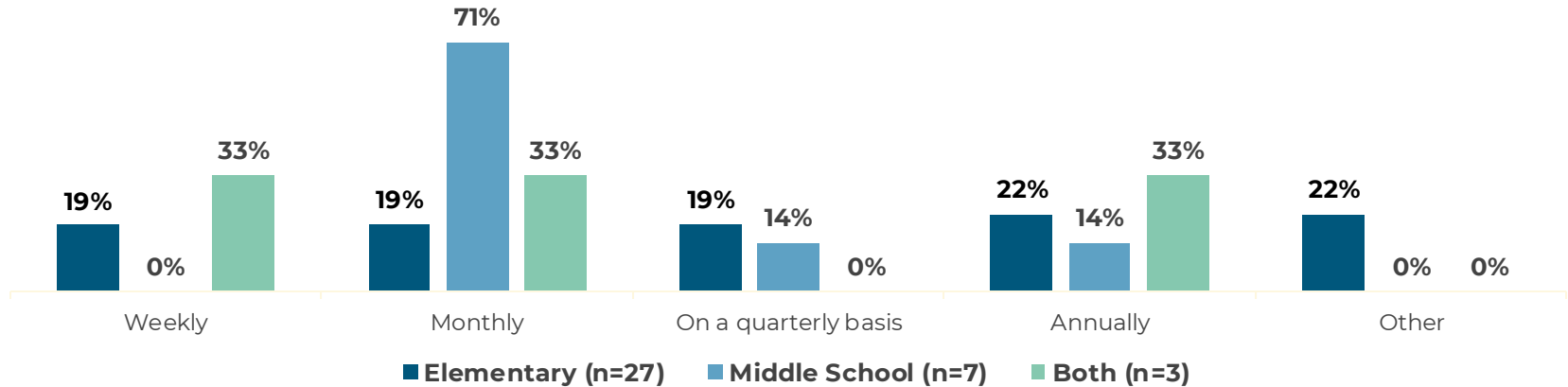


## Going Deeper | Most middle school educators received curriculum-based professional learning monthly while elementary school educators varied in their CBPL frequency.

Most middle school educators received CBPL monthly (71%). In contrast, elementary school educators varied in their CBPL frequency, with many receiving it annually (22%) or some other length of time (22%).

### How often did you receive curriculum-based professional learning?

*Cross cut by grade level<sup>1</sup>*



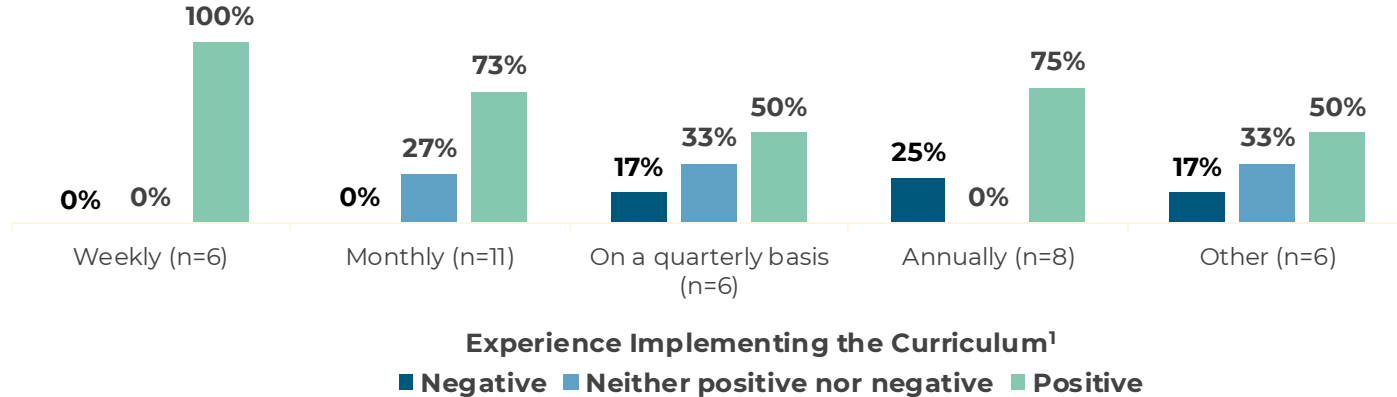


**Going Deeper** | Respondents who received CBPL quarterly or annually had positive and negative experiences implementing their curriculum; respondents who received CBPL weekly had only positive experiences.

Respondents who received CBPL on a quarterly basis, annually, or some other frequency had both positive and negative experiences implementing their curriculum. In contrast, respondents who received CBPL weekly or monthly reported only positive or neutral experiences.

### How often did you receive curriculum-based professional learning?

*Cross cut with experience implementing the curriculum*



**Promising Recommendation:**

Weekly or monthly training may be the ideal frequency for many educators.

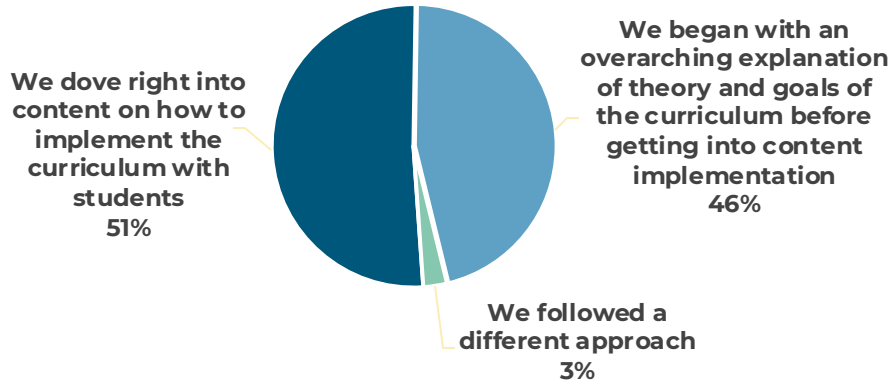
<sup>1</sup> Negative includes “extremely negative” and “mostly negative”. Positive includes “extremely positive” and “mostly positive”.



## Slightly over half of respondents who received CBPL dove into content on implementation while just under half began with overarching theory and goals of the curriculum first.

Respondents were almost evenly divided on whether their CBPL dove straight into how to implement the curriculum versus beginning with theories and goals of the curriculum. This suggests that neither approach is dominant; however, practitioner satisfaction with CBPL indicates a preference for beginning with theory.

### Which best describes the teaching approach that you experienced in your CBPL? (n=37)



### Cross Cut by Overall Satisfaction with CBPL

- Most respondents who were highly satisfied with their CBPL began with an explanation of theory and goals.
- Most respondents who were dissatisfied with their CBPL dove right into content on implementation.

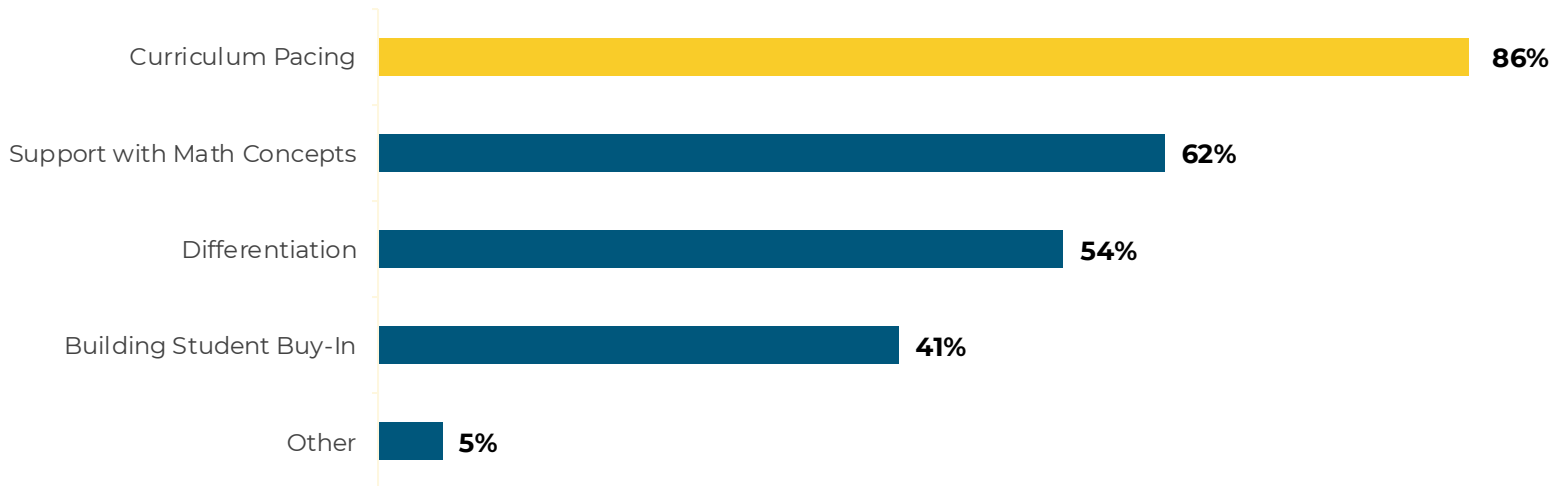
See [Slide 23](#) for more information.



## Most respondents who received curriculum-based professional learning reported that their CBPL provided them with guidance on curriculum pacing.

For most respondents (86%), their CBPL provided them guidance on curriculum pacing. Many respondents (55%) reported receiving guidance on 2 to 3 concepts or strategies from the list below. Some respondents (22%) reported receiving guidance on only one concept or strategy.

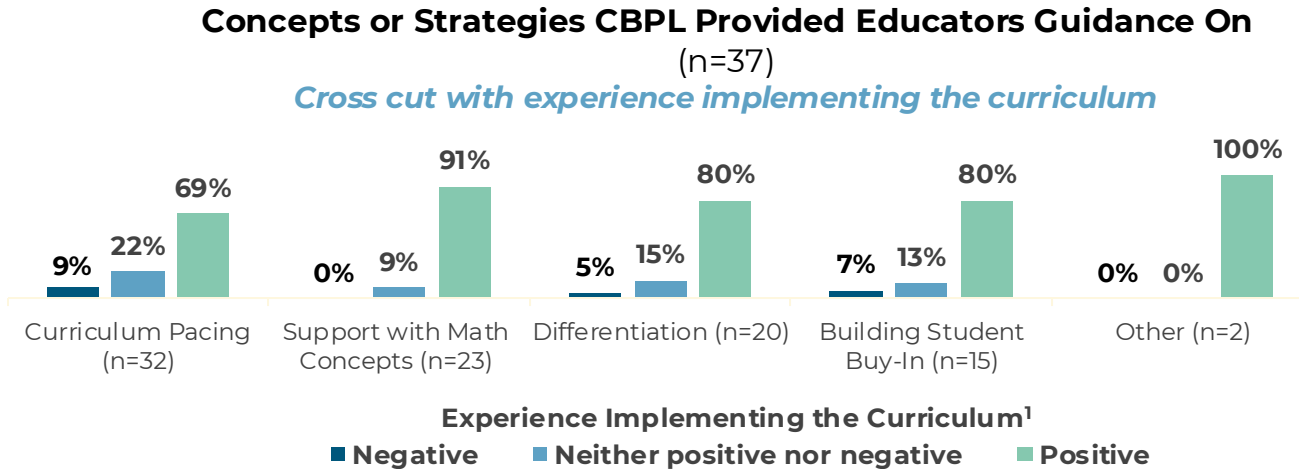
### Concepts or Strategies CBPL Provided Educators Guidance On: (n=37)





**Going Deeper** | In general, support with specific math concepts did not seem to correlate with a positive or negative experience with the curriculum overall.

Respondents who received guidance on curriculum pacing, differentiation, and building student buy-in had both positive and negative experiences implementing their curriculum. In contrast, respondents who received support with math concepts or other topics had only positive or neutral experiences.



**Potential Further Exploration:**

This is an area that could warrant future exploration, as the relationship between CBPL on specific math topics and overall satisfaction with curriculum implementation is unclear.

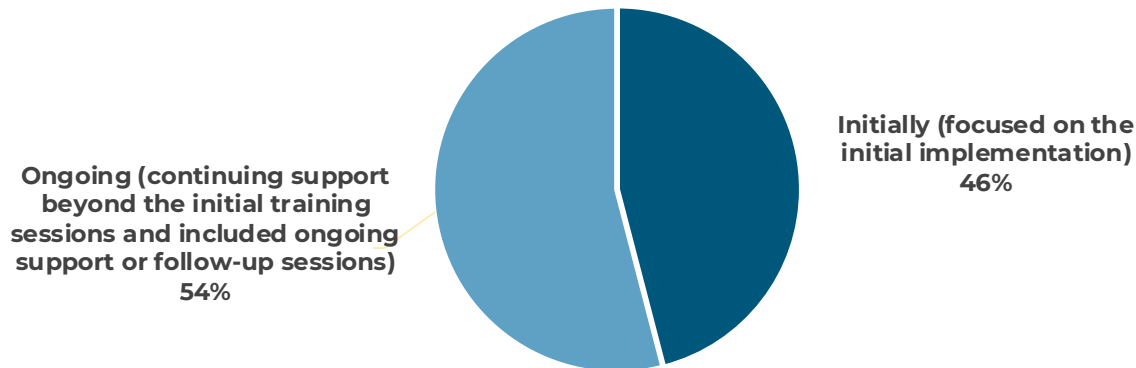
<sup>1</sup> Negative includes “extremely negative” and “mostly negative”. Positive includes “extremely positive” and “mostly positive”.



## Respondents who received CBPL were almost evenly divided between those who received initial training versus those who received ongoing support.

Over half of respondents reported receiving ongoing training on curriculum implementation that continued beyond the initial training sessions. Under half of respondents received training that focused on initial implementation only. This suggests that neither approach is dominant; however, crosscuts reveal different preferences of math practitioners.

### When did you experience this curriculum-based professional learning? (n=37)

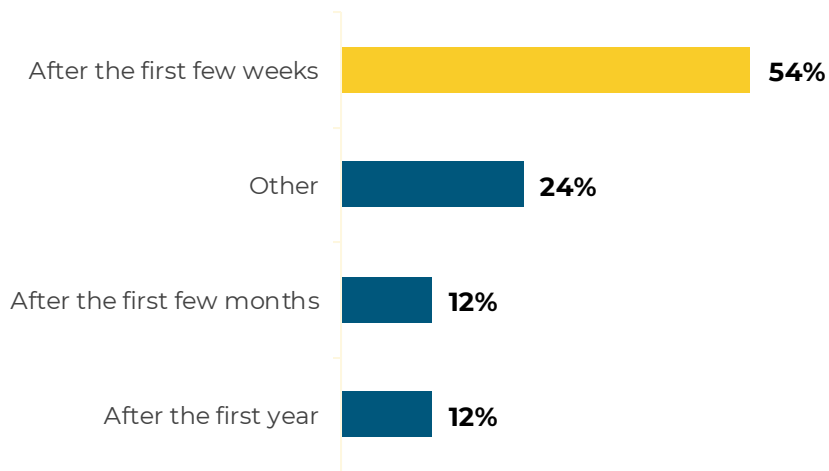




## For most respondents who received only initial training, professional learning stopped after the first few weeks of curriculum implementation.

For those whose CBPL only included the initial implementation of the curriculum, most (54%) had their professional learning stop after the first few weeks, or shortly after the initial implementation phase.

### At what point did professional learning stop? (n=17)



### *Cross Cut by Experience Implementing the Curriculum<sup>1</sup>*

- Respondents whose initial training ended after the first few weeks or after the first year reported both positive and negative experiences implementing their curriculum.
- Respondents whose initial training ended after the first few months or after some other length of time had only positive experiences implementing their curriculum.

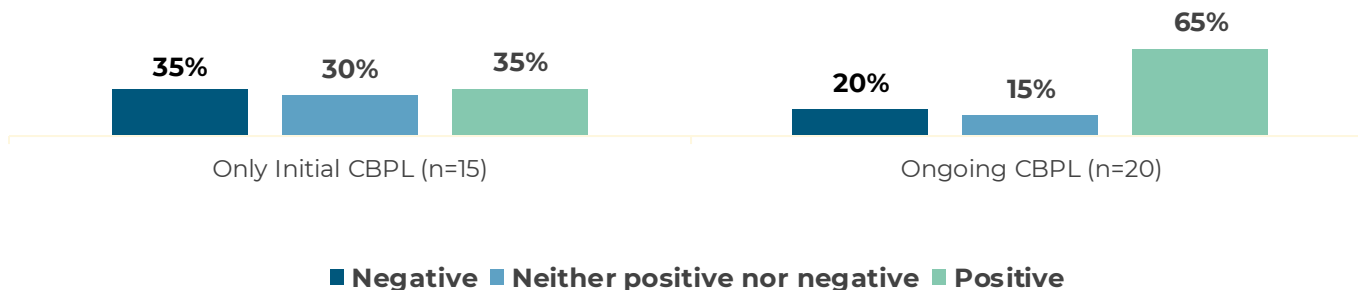
<sup>1</sup>This was a trend with low n counts, therefore ResultsLab did not provide the information in a separate chart.



## Those who received ongoing CBPL had more positive experiences with curriculum implementation once the CBPL ended than respondents who received only initial CBPL.

ResultsLab theming of qualitative responses showed that 65% of respondents who received ongoing CBPL had a positive experience implementing the math curriculum once the CBPL ended. In contrast, 35% of respondents who only received initial CBPL had a positive implementation experience once the CBPL ended.<sup>1</sup>

### Experiences Implementing Curriculum After CBPL Ended



#### **Promising Recommendation:**

Educators receiving ongoing CBPL have more positive experiences with curriculum implementation after their CBPL ends.

<sup>1</sup> "Initial" training means that the training focused on initial implementation and did not include continuing support beyond the initial training sessions.





**Going Deeper** | When CBPL ended, those who received only initial<sup>1</sup> training were evenly split between positive and negative experiences post-CBPL. This indicates an area for further exploration in focus groups.

**Please use one sentence to describe your experience implementing the curriculum once the curriculum-based professional learning ended. (n=17)**

<b>Positive Experiences (35%)</b>	<b>Negative Experiences (35%)</b>
<ul style="list-style-type: none"><li>• Satisfied with training and resources</li><li>• Received additional support, e.g., from instructional coaches</li><li>• Ready to implement the curriculum</li></ul>	<ul style="list-style-type: none"><li>• Wanted more training prior to curriculum implementation</li><li>• Felt training received was inadequate or confusing</li><li>• Had to search for additional resources independently or with other educators</li></ul>

**“I found the provided teacher materials very helpful** so it worked well for me plus we had an instructional coach available to help.”

- Elementary school teacher, Wisconsin, implementing Eureka Math (EngageNY)

**“It was difficult and I had to look onto resources** such as teacherspayteachers.com and do my own research via google; I had to also use some of the former curricular resources as a supplement until I got the hang of it.”

- Elementary school teacher, Tennessee, implementing product by Savvas Learning Company (f/k/a Pearson)

<sup>1</sup>“Initial” training means that the training focused on initial implementation and did not include continuing support beyond the initial training sessions.



**Going Deeper** | In contrast, those who received ongoing CBPL mostly viewed their experience implementing the curriculum after CBPL ended as positive.

**How does / did your experience with ongoing curriculum-based professional learning compare to your experience with professional learning during the early stages of implementation? (n=20)**

<b>Positive Experiences (65%)</b>	<b>Negative Experiences (20%)</b>
<ul style="list-style-type: none"><li>• Continued support from experts</li><li>• Able to focus more in-depth on specific topics</li><li>• Deepens understanding of the curriculum</li><li>• Able to experience the curriculum and ask targeted questions based on real-world implementation</li></ul>	<ul style="list-style-type: none"><li>• Ongoing sessions were sporadic and infrequent</li><li>• Content repetitive and not as helpful as initial training</li><li>• Buy-in not as high as initial training</li></ul>

**“Ongoing curriculum-based professional learning has been a game-changer!** Unlike the initial implementation phase, which felt overwhelming and focused on mere survival, ongoing support has allowed me to dive deeper, refine my craft, and truly thrive. It’s like going from just ‘getting by’ to ‘getting it right’ – a night-and-day difference!”

- Middle school instructional coach, Texas, implementing product by Houghton Mifflin Harcourt (HMH)

**“The ongoing has not been as helpful as the initial year** of the implementation when there was more meaning and buy-in by educators in my district.”

- Elementary school teacher, Iowa, implementing the Numeracy Project

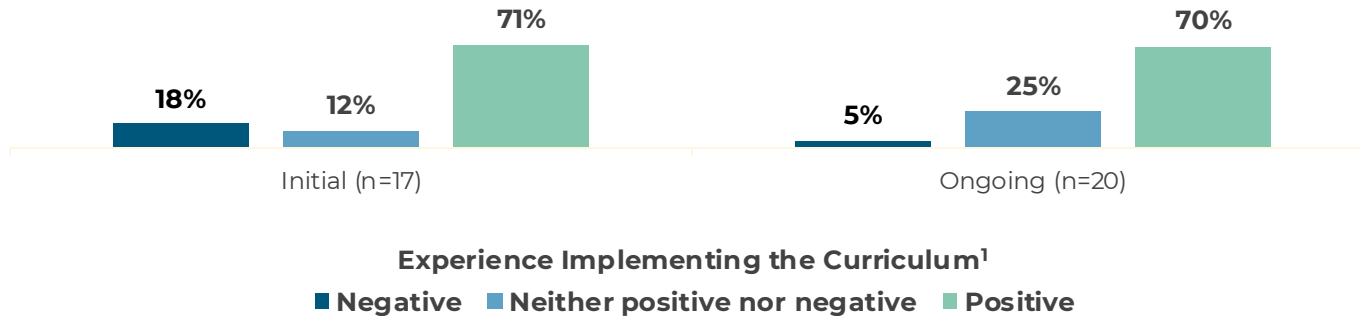


**Going Deeper** | Respondents who received ongoing CBPL had a positive experience implementing the curriculum compared to those who received only initial CBPL.

18% of respondents who received only initial CBPL had negative experiences implementing their curriculum compared to 5% of respondents who received ongoing CBPL and had negative experiences.

### When did you experience this curriculum-based professional learning? (n=37)

*Cross cut by experience implementing the curriculum*



#### **Promising Recommendation:**

Providing ongoing CBPL could help decrease negative experiences with curriculum implementation for some educators.

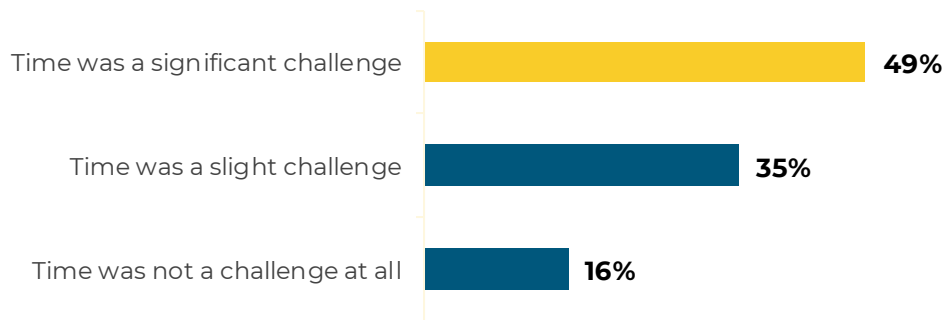
<sup>1</sup> Negative includes “extremely negative” and “mostly negative”. Positive includes “extremely positive” and “mostly positive”.



## Many respondents who received curriculum-based professional learning felt that having dedicated time for CBPL was a significant challenge.

For many respondents (49%), having the time to dedicate to curriculum-based professional learning was a significant challenge. Existing research shows that teachers highlight time constraints for engaging in PL experiences annually (NEA/Learning Forward, 2017). Additionally, district and school leaders flag time constraints as the biggest challenge for developing and/or engaging in PD/PL (EdWeek, 2019).

### To what extent was having the time to dedicate to curriculum-based professional learning a challenge? (n=37)



#### **Promising Recommendation:**

CBPL providers can work with school districts to consider the larger systems of time and teacher demands and build in buffers for CBPL.

*"The biggest challenge is always so much to learn at once."*  
- Elementary school teacher, New York



**Going Deeper** | Time was a significant challenge across all grade bands and especially for educators who had 0-7 years of teaching experience or those who'd used the curriculum for less than 2 years.

	Time was a significant challenge	Time was a slight challenge	Time was not a challenge at all
Grade Band	All educators who teach <b>both</b> middle and elementary school; many <b>elementary</b> (44%) and <b>middle</b> (43%) school educators.	Most <b>middle</b> (57%) and some <b>elementary</b> (33%) school educators.	Some <b>elementary</b> (22%) school educators.
Years of Experience	Most educators with <b>0-7 years</b> of experience (75%) and some educators with <b>8-15</b> (46%) and <b>16-20+</b> (45%) years of experience.	Some educators with <b>8-15</b> (31%), <b>0-7</b> (25%) and <b>16-20+</b> (23%) years of experience.	Some educators with <b>8-15</b> (23%) and <b>16-20+</b> (15%) years of experience.
Curriculum	Most educators using curriculum from <b>other</b> providers (62%), <b>Eureka Math</b> (60%), and <b>Illustrative Math</b> (50%).	All educators using products by <b>HMH</b> (100%). Most educators using <b>Illustrative Math</b> (50%) and products by <b>Savvas Learning Company</b> (50%).	Some educators using curriculum from <b>other</b> providers (23%), <b>Eureka Math</b> (20%), and products by <b>Savvas Learning Company</b> (17%).
Time Using Curriculum	Most educators who have used their curriculum for <b>less than 1 year</b> (80%) or <b>1-2 years</b> (67%).	Most educators (53%) who have used their curriculum for <b>3-5 years</b> .	Most educators who have used their curriculum for <b>6-10</b> (60%) or <b>more than 10</b> (67%) years.



## The most common barriers to educators maximizing their CBPL include insufficient time allocated for CBPL, the need to juggle many responsibilities, and scheduling of CBPL at inconvenient times.

For respondents who felt like the time to implement CBPL was a slight or significant challenge (n=31), they shared that there was not enough dedicated time for CBPL among other barriers. The themes below are listed in decreasing order of frequency.

### There was not enough time for CBPL

“Other than our built in professional learning days before the school year, **there isn't a lot of time for PD**. We do our best to work time into CLT (collaborative learning team) meetings but that's only 45 minutes once a week and we have a lot to accomplish in that amount of time.” – Elementary school instructional coach, Virginia

### CBPL had to be juggled with many other competing responsibilities

“Time is a precious resource, and when push comes to shove **there are often more pressing tasks** requiring teacher attention. It truly needs to be dedicated time set aside by school/district staff.” – Elementary and middle school instructional coach, New Mexico

### CBPL should have been timed or scheduled differently

“**Training occurs at the beginning of the school year** when we are trying to get ready for students to come and the year to begin. **It's overwhelming and stressful** trying to get everything done and learn a new textbook/curriculum.” – Middle school teacher, South Carolina



**Data Validation** | According to follow-up data collected on Slack, educators would de-prioritize administrative tasks, such as emails and paperwork, to have more time for professional learning.

When asked what they would prioritize so they could have more time for professional learning, some respondents (n=7) mentioned administrative tasks, like checking email and filling out paperwork. Others were open to completing professional learning outside of work hours, such as during the summer (if paid).

*“I wish I could take out the **unimportant paperwork**, so I could spend more time finding useful strategies for my students.”*

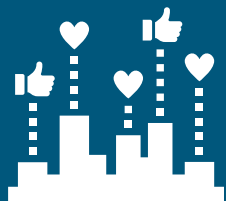
- Elementary school teacher, Illinois

*“I might rearrange my time **checking and responding to emails** to make time for professional learning.”*

- Elementary school teacher, North Carolina

*“There is **not much** to de-prioritize out of my weekly tasks and work.”*

- Middle school teacher, Vermont



## RECOMMENDATIONS FOR CURRICULUM-BASED PROFESSIONAL LEARNING

*"I believe anytime we adopt a new curriculum, we should be thoroughly trained with a helpline available! A lot of the time we are given new curriculum and expected to muddle through and figure things out ourselves."*

*-Elementary school teacher, Texas*

This section explores 1) the ideal amount of time educators would like to spend on curriculum-based professional learning, and 2) recommendations for future curriculum-based professional learning.

### Key Findings:

- **Significance of time:** While 1-4 hours per month was often ideal, respondents report having less than 2 hours or no time at all for professional learning about curriculum implementation.
- **Training topic interest areas:** Respondents express interest in professional learning topics such as model lessons, strategy workshops, and scaffolding learning progression, with a need for more focus on differentiation and tangible implementation methods, particularly in math curriculum training.

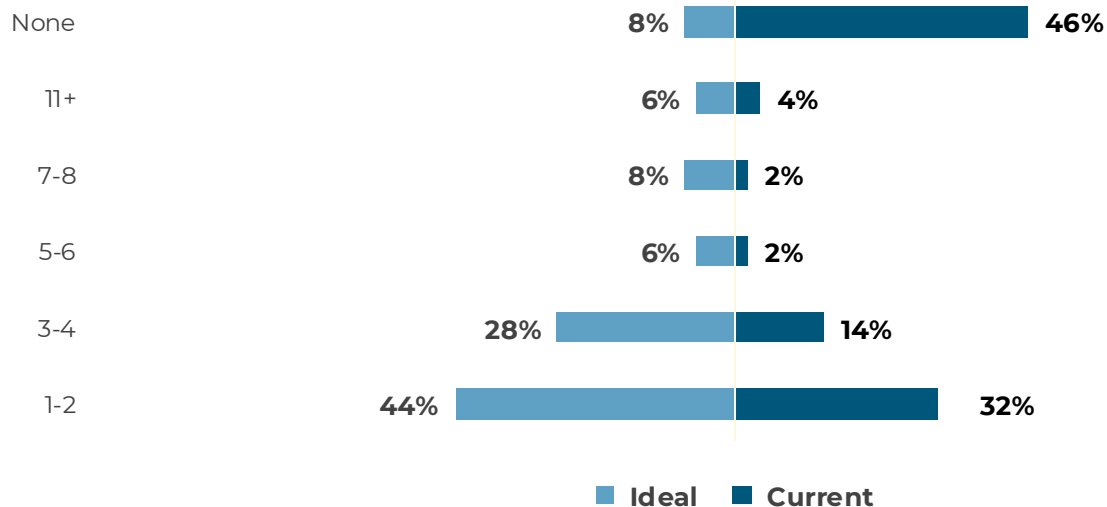




While 1-4 hours per month was often ideal, respondents report having less than 2 hours or no time at all for professional learning about curriculum implementation.

How many hours per month would you ideally spend vs currently spend on professional learning for implementing your curriculum?

(n=50)



**Going Deeper:**

School districts could support curriculum implementation by providing more time for professional learning. Focus groups could explore what should be de-prioritized to allow for more PL time.



## Providers might consider aligning CBPL delivery approaches with educators' preferences for model lessons, strategy workshops, and scaffolding learning progression.

Educators appear to be most interested in training that focuses on building important skills for implementation, specifically modeling curriculum use (16%), workshops on specific content or strategies (14%), and direction on how to scaffold learning progressions (12%).

### Top Three CBPL Approaches for Supporting Curriculum Implementation: (n=50)



### *Respondents' Experiences with Model Lessons and Workshops on Specific Content/Strategies*

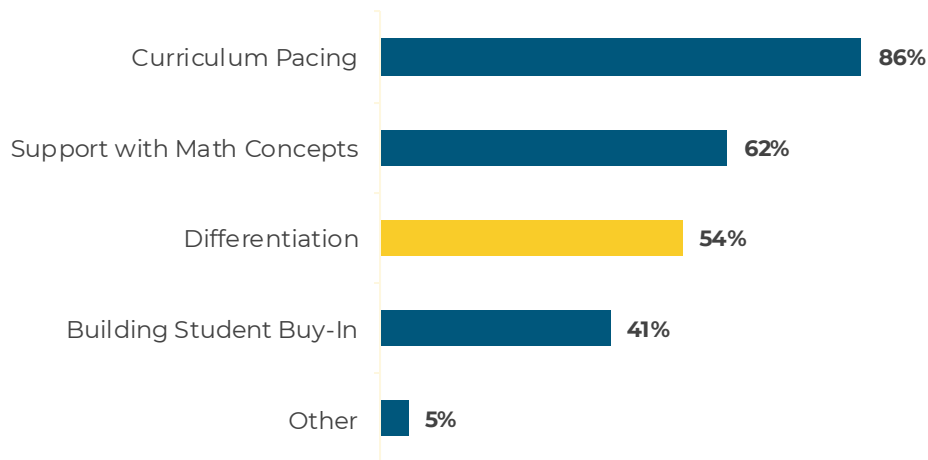
- 100% of respondents who were highly satisfied with their CBPL received model lessons.
- 87% of respondents rated model lessons as extremely or moderately useful.
- 77% of respondents rated workshops on specific content or strategies as extremely or moderately useful.



## When compared to PL curriculum topics that have been provided, practitioners indicate a need in CBPL for more content on differentiation.

Respondents ranked differentiation and support with math concepts as their top desired focus areas for professional learning on curriculum implementation. When compared to CBPL curriculum topics that have been provided, there is a need to provide more coverage of differentiation.

**Concepts or Strategies on which Educators Received CBPL Guidance (n=37)**



**Practitioner-Reported Priority Focus Areas for PL to Better Support Curriculum Implementation (n=49)**

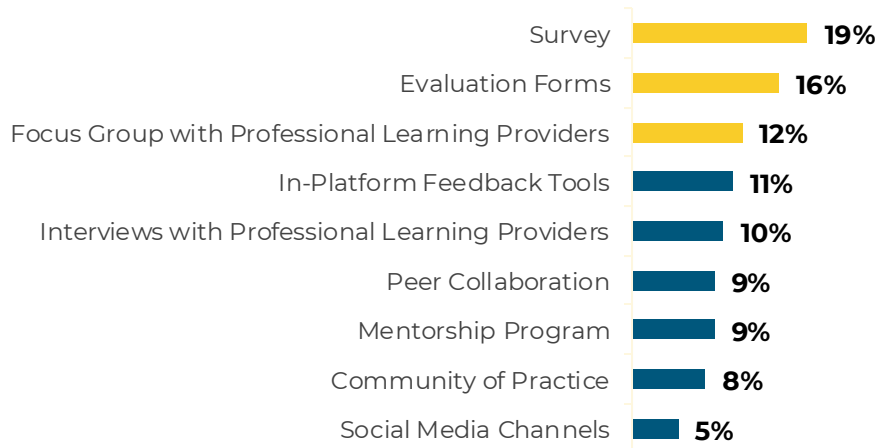
Learning Area	Average Score (1-4)
Differentiation	2.00
Support with Math Concepts	2.10
Curriculum Pacing	2.67
Building Student Buy-In	3.22



## When involving community insights in CBPL development, providers should consider the following feedback avenues: surveys, evaluation forms, and focus groups.

All respondents reported that they are willing to provide feedback to providers of CBPL. Many would prefer to offer that feedback through surveys (19%), evaluation forms (16%) and focus groups with providers (12%).

### Top Three Ways Educators Would Be Interested in Offering Feedback to CBPL Providers (n=50)





## Respondents recommend trainings be more focused on how to implement curriculum in tangible ways and that educators are given more time to learn and plan.

Patterns found within years of experience also showed more experienced educators asking for more time to learn and plan, while less experienced educators more often recommended video tutorials and classroom demonstrations.

### More Tangible Implementation Support

“Don't waste the educators time by reading pre-prepared slides. Find people to deliver the professional learning **who have been in a classroom recently**. (No one wants to be taught by a salesperson.)...Help out with ideas that may be used if the curriculum fails at times. **No curriculum is foolproof.**” – Middle school teacher, Iowa, 20+ years of experience

### More Time to Plan & Learn Materials

“Teachers **need time** to review and understand the curriculum to ensure all standards are covered.” – Middle school teacher, California, 16-19 years of experience

### Implementation Focus Training

“**Video tutorials**, Talking points for PLC time, **Make it fun and interactive** - a sit and get session is OLD NEWS!” – Elementary school teacher, Wisconsin, 20+ years of experience

### Asynchronous Training and Demos

“Have **online walkthroughs** available 24/7” – Elementary school instructional coach, Texas, 0-3 years of experience



## Findings suggest that barriers to CBPL can be broken down by building in time for training, protecting that time, and ensuring that the time provided is adequate for learning.

Respondents who received CBPL and who felt like the time to implement CBPL was *not* a challenge (n=6)<sup>1</sup> reported that time for CBPL was built in, protected, and adequate for their needs.

Time for CBPL was built into educators' schedules

**"Our school built in the times for us** and had our classes covered while we were in classes." – Elementary school teacher, Alabama

Time for CBPL was supported by ensuring educators were able to use the CBPL time they were given

**"My district coordinator ensured that we had time** to work with the specialist." – Elementary school teacher, South Carolina

The amount of time provided for CBPL was adequate for learning

"I feel like **the allotted time was perfect** to feel secure in teaching eureka." – Elementary school teacher, Louisiana

<sup>1</sup>All respondents (n=6) were elementary school educators.



**Professional Learning in Math  
Study**

# NEXT STEPS



# NEXT STEPS | Opportunities

To support the quality of HQIM implementation and student outcomes, the following audiences can ...

## Curriculum-based professional learning providers:

- **Increase accessibility and modalities of training:** Provide accessible training options (self-paced and online training modules) and new training modalities (model lessons, strategy workshops, and scaffolding learning progression).
- **Ensure training is focused on implementation:** Focus on realistic application (classroom demonstrations, more realistic case scenarios). Use trainers with in-classroom experience.
- **Expand training topic areas:** Allow differentiated training (by years of experience, grade band, and classroom needs) in key topic areas (differentiation and support with math concepts).
- **Engage with educators:** Educators want to give feedback to providers via surveys, evaluation forms, or focus groups.

## School districts:

- **Ensure sufficient time for comprehension and implementation:** Build in time for educators to digest the material, attend trainings, and plan for curriculum implementation.
- **Build buy-in first:** Listen to educator concerns and build support beforehand to enhance curriculum adoption.
- **Provide ongoing support:** Ensure continuous support with dedicated staff, regular check ins, helplines, and protected time for educators.
- **Listen to educator voices:** Be on the lookout for formal and informal feedback on what educators want from their CBPL and listen to what has already been shared.





**Data Validation** | Following the online journal, respondents on Slack agreed with ResultsLab's recommendations on training accessibility and differentiation, the focus of training, and providing educators more time.

ResultsLab asked respondents (n=9) on Slack to share their feedback on four of eight recommendations. Generally, respondents agreed with ResultsLab's recommendations.

#### Increase accessibility & modalities of training

*"I **agree with self-paced** training. To me, it is very important that training is **realistic**, not just someone speaking about a topic."*

-Elementary school teacher, Illinois

#### Ensure training is focused on implementation

*"This **would be a God send** ... The PLCs **need to have real life lesson plans and activities** that the educator can use in the classroom."*

- Middle school teacher, Tennessee

#### Allow differentiated training

*"I **fully agree** ... It is so important that trainings are taught the same way we teach our students ... **differentiated to each person's needs and level.**"*

- Middle school teacher, Vermont

#### Ensure sufficient time for comprehension and implementation

*"It is **imperative that school districts build in time** for teachers to not only receive the training but also allow time to process and understand within their individual settings."*

- Elementary school teacher, North Carolina

#### Other Respondent Feedback

- **Role of Curriculum Providers:** One respondent shared that curriculum providers overall should ensure that educator can implement the curriculum with fidelity and make adjustments to meet the needs of individual adult learners.
- **Challenges with Time and Funding:** One respondent shared that finding the time to implement the recommendations would be difficult – particularly in rural areas with limited funding.

**THANK YOU!**



**Professional Learning in Math  
Study**

# APPENDIX



# REFERENCES

EdWeek. (2019). Assessment Problems and Proposed Solutions: What District Leaders Want. *EdWeek Market Brief*. Retrieved from [https://pages.edweek.org/MB-Big-Splash-2019---Assessment\\_MB-Big-Splash-2-Prospect-LP.html](https://pages.edweek.org/MB-Big-Splash-2019---Assessment_MB-Big-Splash-2-Prospect-LP.html).

NEA/Learning Forward. (2017, Aug 25). The State of Teacher Professional Learning. *Learningforward.org*. Retrieved from <https://learningforward.org/report/state-of-teacher-professional-learning/>.

RAND. (2023). PRL 724 - Indicate whether you participated in each of the following types of professional learning activities this school year (2022-23). If you have, to what extent has each been useful for improving your mathematics instruction? *2023 American Mathematics Education Study (AMES) Teacher*. Retrieved from <https://bentobento.info/surveys/239>.



# STUDY APPROACH | Phases

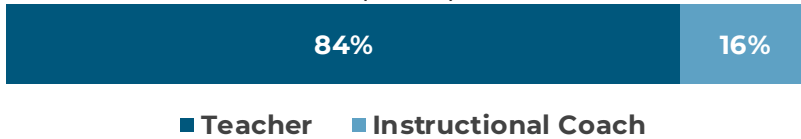
Phase	Approach + Goal	Participants	Deliverable(s)
Professional Learning Rapid Study <b>COMPLETE</b>	Open-Ended Questions in Slack	Math educators in the K-12 Practitioner Panel Slack workspace	Raw data and emergent findings in slide form to inform conversations at the February “Foundation Week”
Phase I: Professional Learning Online Journal <b>COMPLETE</b>	Online journal distributed to math practitioners including math teachers and math instructional coaches	<p>Math teachers and coaches who engage with math students in grades K-8 and in all in all states, with an oversampling of teachers who use Eureka Math and/or Illustrative Math.</p> <p>There will be a higher proportion of participants from states with larger populations (CA, TX, NY, and FL) and participants working at schools with 51+% of students who are Black/African American, Hispanic/Latinx, or eligible for free or reduced lunch in alignment with these populations making up a larger portion of the network.</p>	<p>Emergent findings in slide form to share early insights and update foundation POs on project progress.</p> <p>Complete synthesis deck with applications and high-level takeaways.</p>
Phase II: Professional Learning Focus Groups <b>UPCOMING</b>	Focus Group Discussions with math teachers and coaches who use Eureka Math or Illustrative Math	TBD	Added slides to the synthesis deck above exploring qualitative themes, applications, and recommendations.



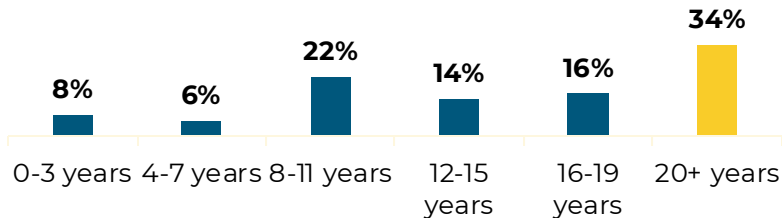
# STUDY APPROACH | Demographics

Most (84%) online journal respondents are teachers. Many (34%) have been in their role for 20 or more years. Many work in Texas (14%), New York (8%), or Tennessee (8%).

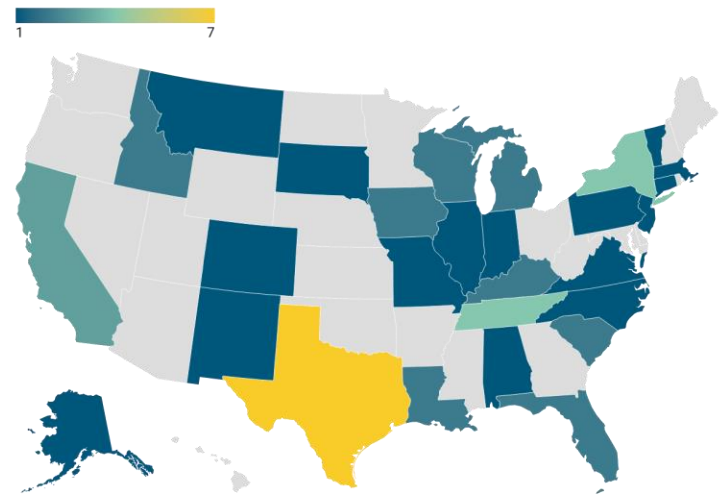
### Study Participants by Role (n=50)



### Years in Role (n=50)



### In which state do you currently work (your school district)? (n=50)



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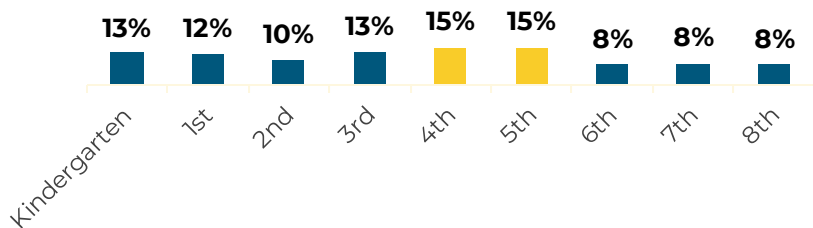


# STUDY APPROACH | Demographics

Many online journal respondents work with students in 4<sup>th</sup> or 5<sup>th</sup> grade. Most respondents work in schools where most students (50% or above) are eligible for free or reduced lunch.

**In your current role, in which grades do you work with students most frequently? Select all that apply.**

(n=50)



**Respondents work with student populations that are a majority (over 50%): (n=50)**

