



Assessing ELA and Math Curriculum Shifts: A Practical Guide for Measurement and Progress Monitoring

A library of instruments for education research and school improvement

EdInstruments is a developing library of educational measurement tools intended to be a resource for scholars, educators, schools, districts, and the general public.

To date, the field of education research has demonstrated little agreement or consistency on how to define, measure, and organize the full range of outcomes related to student success and well-being. Without a comprehensive catalog of what is available, the field has lacked a collective understanding of what is and isn't being measured and what measures still need to be developed. Further, researchers often create measurement tools from scratch rather than building on existing measures, impeding comparability of studies and progress in the field. EdInstruments aims to improve educational opportunities for students by addressing these issues. The annotated database not only gives researchers, schools, and school leadership a detailed overview of the tools currently available, but also illuminates where there are gaps. Our goal is to spur development of needed tools and to help the field move towards greater consensus regarding the measurement instruments that are most useful and reliable.



Research Partnership
for Professional Learning

Transforming student learning through teacher professional learning

We are advancing educational equity for every student, including those who have been historically pushed to the margins of our education system. Together, we study teacher learning to identify, share, and enact PL that improves teachers' practices and students' classroom experiences, well-being, and academic growth. We envision a world where all students and educators are valued, supported, engaged, and thriving in equitable, rigorous, and joyful learning environments that prepare them to be successful lifelong learners.

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1 Introduction

Across the country, school districts are betting that teachers' use of high-quality instructional materials (HQIM) will profoundly improve student achievement,¹ particularly when teachers are supported by professional learning (PL) grounded in the curriculum.²

How will we know whether these efforts are working?

Rigorous studies have confirmed that HQIM can produce large and positive effects on student learning.³ But curricular shifts are notoriously difficult to track.⁴ This is in part because the field lacks common measurement instruments that are practical and easy to use, leaving states, districts, and PL providers to develop custom tools to gather data on their HQIM and curriculum-based PL (CBPL) efforts.⁵ We are therefore short on broader insights into where and under what conditions the promise of HQIM and CBPL is being realized.

This updated toolkit provides a set of shared instruments to measure critical aspects of curriculum implementation in **English Language Arts (ELA) and Mathematics across grades 3–12**. The toolkit's surveys and classroom observation protocols are designed to help PL providers, district leaders, coaches, and others ask and answer questions about HQIM and CBPL implementation and outcomes. The tools can be tailored by subject area (ELA or Math) and used to gather data for continuous improvement, planning, and resource allocation.

The instruments and Shared Measures Construct Map (below) were compiled and reviewed by the Research Partnership for Professional Learning (RPPL) in concert with PL providers and researchers.



What's new in this version?

The toolkit is an update to a [previous version](#) focused only on curricular shifts in ELA. The survey instruments include both a subject-agnostic version and versions specific to either ELA or Math.

The update also has a sharpened scope and includes revisions to our original ELA measurement system based on learnings from a pilot conducted with PL providers within RPPL's network and the districts in which they provide PL. In particular, the updated toolkit includes more opportunities to triangulate patterns across data sources and offers multiple instrument configurations for different use-cases.

Who is this for?

This toolkit supports PL providers, district leaders, and coaches who want to track implementation progress and PL quality across the first several years of ELA and/or Math curriculum shifts. The measures included in the toolkit can be used to:

- understand the state of CBPL and HQIM implementation across the system
- support improvement efforts, tracing links in a theory of change and surfacing points of breakdown

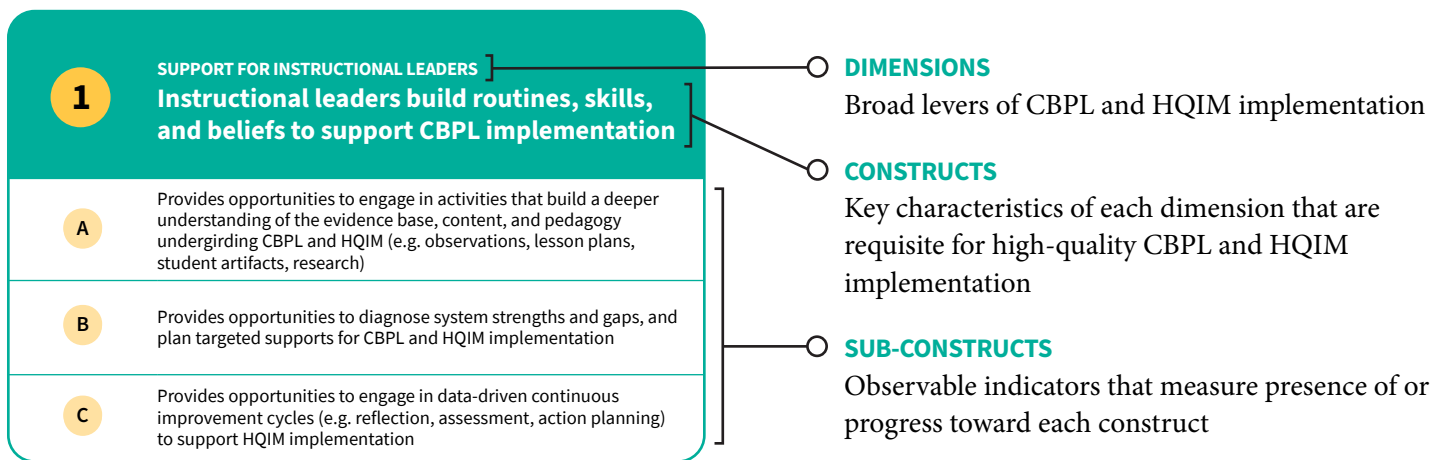
Users can implement the toolkit as a comprehensive suite of four instruments or select individual instruments, or dimensions within instruments, that are most relevant to their specific context and needs.

Importantly, the instruments in this toolkit are not designed for evaluating individual students, teachers, or schools.

2 Key Areas to Measure

This toolkit is a comprehensive measurement system, grounded in a Theory of Change that highlights aspects of CBPL and HQIM implementation which district leaders and PL providers can influence directly. The toolkit is designed specifically for CBPL and HQIM implementation and is intended to be used during implementation efforts, rather than earlier phases such as curriculum selection or adoption.

The toolkit construct map is organized by:



1

SUPPORT FOR INSTRUCTIONAL LEADERS

Instructional leaders build beliefs, routines, and skills to support CBPL implementation.

We focus on supports that are fundamental to CBPL and HQIM implementation for leaders — deepening their **understanding of the evidence base** for CBPL and HQIM, **diagnosing system strengths and gaps** to inform planning, and **leading data-driven continuous improvement cycles** to strengthen implementation.⁶

3

TEACHER PROFESSIONAL LEARNING

Teachers build routines, skills, and beliefs to implement HQIM.

Evidence suggests that key elements of PL — **deepening content and pedagogical understanding**, **guided practice**, **opportunities for reflection**, **targeted feedback**, and **collaboration** — help teachers implement new instructional practices and curriculum materials with confidence.⁸

5

TEACHER INSTRUCTIONAL PRACTICE

Teachers implement HQIM with integrity while adapting to their students' needs and identities.

We focus on how teachers take up, interpret, and **enact the core components of HQIM** — like grade-level rigor — while potentially **adapting other components** of the curriculum to accommodate their students or contexts. Implementing with fidelity a curriculum's central principles is associated with successful outcomes, but “productive adaptations” of some program aspects can also enhance student learning gains.¹¹

2

INSTRUCTIONAL LEADERSHIP

Instructional leaders (e.g. district leaders, principals, APs, instructional coaches/leads, etc.) provide ongoing support for CBPL and HQIM implementation.

Leading effective HQIM implementation requires a vision for how CBPL and HQIM can support student learning along with the ability to **communicate**, **execute**, and **continuously improve** upon that vision.⁷

4

TEACHER MINDSETS AND BELIEFS

Teachers view implementing and adapting HQIM as impactful for students.

Teachers' **beliefs and mindsets** are one mechanism through which curricular shifts can lead to improved student learning. This includes teachers' belief that HQIM are a critical tool to provide all students with rigorous, grade-appropriate content and the belief that all students can excel without diluting the rigor of content.⁹ Evidence suggests these beliefs can translate into teacher behaviors or expectations that in turn make HQIM success more likely.¹⁰

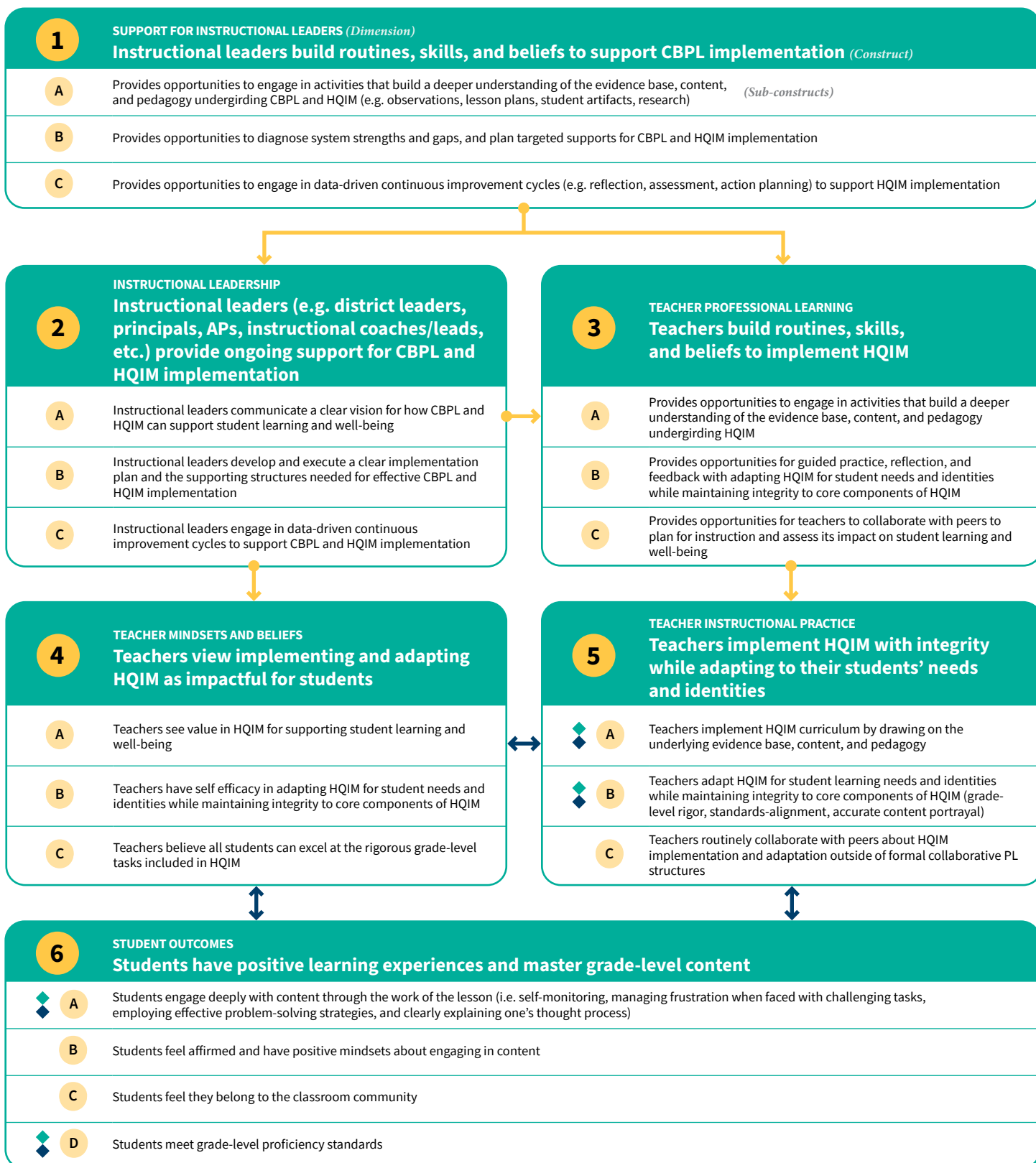
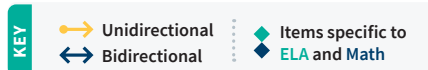
6

STUDENT OUTCOMES

Students have positive learning experiences and master grade-level content.

Students learn best in an environment where they feel that their **identities are respected and affirmed**¹² and when they are **challenged with rigorous, grade-appropriate texts, questions, and tasks**.¹³ To capture this, we include social-emotional outcome measures like belonging and affirmation as well as academic measures to ensure both academic and personal growth are measured as part of HQIM implementation.

Shared Measures Construct Map



Overview of Instruments

[See Recommendations](#)

Leader Survey

A survey administered to district leaders, school leaders, coaches, and/or PL facilitators to measure perceptions of:

- professional supports received
- the district's vision and approach to implementing HQIM
- the nature of teachers' PL experiences

Math Items: 41

Teacher Survey

A survey administered to teachers to measure perceptions of:

- the nature of the PL they participated in
- the utility of the PL they participated in
- their instructional leadership

Math Items: 48

Classroom Observation

A rubric used by a trained observer (e.g. a coach or school leader) to gather and score evidence of how:

- teachers are implementing and adapting HQIM
- teachers facilitate lessons on math, foundational reading skills, or text-based comprehension
- students are engaging with ELA/Math content

Math Items: 14

Student Survey

A survey administered to the students of teachers that participate in PL to measure:

- their sense of belonging
- their engagement with ELA/Math content

Math Items: 23

Tailoring the Toolkit to Your Needs

This toolkit is designed to be flexible, allowing PL providers, district leaders, and coaches to choose the components that best fit their goals and context. For example, for those interested in understanding the state of CBPL and HQIM implementation across the system, the toolkit can help ask and answer questions like:

- What is the current status of CBPL and HQIM implementation overall?
- How does CBPL and HQIM implementation vary across the system?
- How has CBPL and HQIM implementation changed over time?
- How does CBPL and HQIM implementation in my context compare with other contexts (benchmarking)?

And for those interested in using the toolkit for continuous improvement efforts, such as tracing links in a theory of change and surfacing points of breakdown, the toolkit can help users ask and answer questions like:

- How do perceptions differ across stakeholder groups (triangulating viewpoints)?
- What drives variation in implementation and outcomes across the system?
- What are the strengths and weaknesses of the system?
- To what extent do the causal links in a theory of change show up in the data?
- To what extent is the system improving over time?

Consider the recommendations and information below, and download the Excel companion spreadsheet to filter the toolkit by your core purpose.

- Avoid picking single survey items ad hoc. Begin with a clear purpose and think about how to integrate chosen items or instruments into your existing tools or routines.
- Consider what data will be most valuable for your partners and for your own continuous improvement and progress monitoring purposes.
- Some sub-constructs appear on multiple surveys (for example, on both the teacher survey and leader survey). Therefore multiple tools can be used together to collect data on these sub-constructs and triangulate across respondent types or gain a deeper understanding of implementation from multiple perspectives.

3

Recommendations for Use

This toolkit is designed to help organizations and districts collect useful, timely, and consistent information about professional learning. The surveys and classroom observation protocol were designed to be flexible and modular because practitioners engaging in measurement activities face different constraints than researchers. However, this flexibility introduces a challenge. Decisions made for pragmatic reasons — such as which survey components a district should administer, or how many teachers a PL organization should survey or observe and on what timeline — can have consequences for the claims that the district or organization wants to make about CBPL and HQIM.

There are no hard and fast rules or magic thresholds for optimal data collection. Instead, decisions about how to collect data should be context-dependent and grounded in the specific questions that a practitioner or researcher wants to ask or inferences they wish to draw. For example, there are different considerations if data will be used to assess:

- the **status** or **quality** of CBPL and HQIM implementation at a specific point in time
- how CBPL and HQIM implementation **vary** across the system
- how implementation has **changed over time**
- how CBPL and HQIM implementation **compares** between two or more sites or organizations (benchmarking)

Below are high-level guidelines that balance research standards with practical constraints. The goal is to help PL providers, district leaders, and coaches make informed decisions about how to collect data and implement the instruments in this toolkit. We focus our guidelines on understanding the status of CBPL and HQIM implementation at a single point in time and include minimal comments on other use cases.

Data Collection Principles

This toolkit supports professional learning providers, district leaders, and coaches who wish to understand the state of CBPL and HQIM implementation across the system and support continuous improvement. The instruments in this toolkit are **not designed for evaluating individual students, teachers, or schools.**

Users are encouraged to consider the following principles:

1. **Representativeness matters** — if you seek to understand practice across a district, conducting 20 observations in classrooms that represent the entire district is better than conducting 30 observations among the highest-performing teachers who volunteer to be observed.
2. **More is always better** —
 - a. A 90% response rate allows more confidence in the conclusions drawn from the data than a 70% response rate.
 - b. The use of more than one instrument in the toolkit — and triangulating data collected from different audiences, such as leaders and teachers, or teachers and students — will generally increase the credibility of conclusions, over and above the conclusions drawn from a single instrument. Using more than one method to collect data can also give important nuance to the conclusions. For example, where surveys can be widely administered to understand what teachers believe in theory, observations can be used to deeply understand how teachers enact those beliefs in practice, providing a more complete picture of curriculum implementation.¹⁴
3. **Change over time requires higher-quality data collection** — Additional considerations appear in the guidelines below for data collected on more than one occasion with the intent to explore change over time. The higher standard for data collected at two or more time points helps ensure that differences observed over time reflect true change rather than measurement error or shifts in the sample.

High-Quality Data Collection

TOOL	IMPLEMENTATION GUIDANCE	ADDITIONAL CONSIDERATIONS FOR EXPLORING CHANGE OVER TIME
Leader Survey	Minimum 70% — 80% response rate ^A	For an apples-to-apples comparison, the same leaders (respondents) should be members of the sample at each occasion of measurement
Teacher Survey	Minimum 70% — 80% response rate	For an apples-to-apples comparison, the same teachers (respondents) should be members of the sample at each occasion of measurement
Classroom Observation Protocol	Provide observers with training. For example, observers should practice rating teacher instructional practices together to norm their ratings prior to the start of observation for data collection. This will increase the likelihood of fair and reliable ratings Randomly select classrooms for observation to ensure a representative sample, in the event not all teachers can be observed Observe each classroom on two different occasions, using two different observers, to help reduce the impact of possible rater bias. These two ratings comprise one observation cycle; multiple cycles enable the measurement of change over time Avoid observing at times that are not representative of typical instruction, for example, close to school holidays or state testing windows	For an apples-to-apples comparison, the same sample of teachers should be observed from one observation cycle to the next Estimating change over time can be particularly complex for classroom observation data — the more observation timepoints the better, particularly if there is a desire to explore variation in growth over time¹⁵
Student Survey	Minimum 70% — 80% response rate	For an apples-to-apples comparison, the same students (respondents) should be members of the sample at each occasion of measurement

^A These minimum response rate recommendations are based on empirical research and professional guidelines for the response rates likely to improve study designs and reduce bias in conclusions drawn from survey data, particularly when data are collected from a relatively small number of respondents. Bias refers to a situation in which the share of teachers, leaders, or students who respond to a survey do not represent (generalize to) all of the teachers, leaders, or students they represent, which can result in misleading conclusions. The recommended response rate is a range because the rate that produces data representative of an entire target audience - whether teachers, leaders, or students - will differ from one context to the next. See American Association for Public Opinion Research. (2022). [AAPOR Standards best practices](#); Groves, R. M., Fowler Jr., F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2009). *Survey Methodology* (2nd ed.). Wiley; Office of Management and Budget. (2006). [Standards and guidelines for statistical surveys](#); Saldivar, M. G. (2012). [A primer on survey response rates](#) [White Paper]; Tipton, B., & Olsen. (2018). Tipton, E., & Olsen, R. B. (2018). A review of statistical methods for generalizing from evaluations of educational interventions. *Educational Researcher*, 47(8), 516–524; Tipton, E., Hallberg, K., Hedges, L. V., & Chan, W. (2017). Implications of Small Samples for Generalization: Adjustments and Rules of Thumb. *Evaluation Review*, 41(5), 472–505. <https://doi.org/10.1177/0193841X16655665>.

Data Collection Calendar

Choose the data collection calendar based on the frequency your team has the capacity to manage. We recommend starting with fewer touchpoints and building up over time as systems strengthen.

- **Annual:** One point of data collection, ideally in early spring, to capture perceptions before the end of year.

SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
JANUARY	FEBRUARY	MARCH	APRIL
	• Leader Survey • Teacher Survey • Classroom Observations		• Student Survey
MAY	JUNE	JULY	AUGUST

- **Bi-annual:** Two touchpoints, in fall and spring, to provide a beginning- and end-of-year perspective.

SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
• Leader Survey • Teacher Survey • Classroom Observations • Student Survey			
JANUARY	FEBRUARY	MARCH	APRIL
		• Leader Survey • Teacher Survey • Classroom Observations • Student Survey	
MAY	JUNE	JULY	AUGUST

- **Three times per year:** Early fall, winter, and spring, allowing for closer monitoring of curriculum implementation.

SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
• Leader Survey • Teacher Survey • Classroom Observations • Student Survey			
JANUARY	FEBRUARY	MARCH	APRIL/MAY
• Leader Survey • Teacher Survey • Classroom Observations • Student Survey			• Leader Survey • Teacher Survey • Classroom Observations • Student Survey
JUNE	JULY	AUGUST	

Classroom Observation Protocols and Training

The toolkit's teacher instructional practice dimension is measured in part through classroom observations, which can provide important information about how teachers implement HQIM and enact what they learned in CBPL. The toolkit includes a Classroom Observation Protocol to collect data, with one version each for ELA and Math. The toolkit's protocol combines elements from three published observation rubrics (see table below for sources) that were all designed to gather evidence on instructional quality. RPPL recommends that teams using this toolkit's Classroom Observation Protocols engage in the following best practices and training to ensure that raters use the protocols in fair and reliable ways. Reliability in this context refers to both a single rater's consistent rating over time as well as agreement between two or more different raters who observe and score the same classroom.

Best practices. An observation instrument articulates criteria for instructional quality, and observers look for evidence those criteria are met and score the evidence at some level of performance. To ensure that ratings are reliable across observation instances and across the different people conducting observations, teams should take the time to provide training on the classroom observation protocol. Training should include opportunities for multiple observers to rate the same educator (or video of educator performance) and debrief to make meaning of the evidence together, norm ratings, and ensure agreement.¹⁶

Formal training. The following table lists the existing observation rubrics that were sampled, combined, and adapted for the Classroom Observation Protocols in this toolkit. Links to the source rubrics' formal training and certification process are included. **Completing the relevant training and certification prior to conducting observations is a critical step to ensure your team collects high-quality and consistent observation data.**

	Contributing rubrics	Publisher/author	Description	Link to formal training/certification
Classroom Observation Protocol for ELA	Integrity Walk tool	UnboundEd	Seven domains that measure key aspects of curriculum usage highlighted in research	
	Tools for Equitable Reading Instruction Foundational Skills (TERI:FS) and Text-Based Comprehension (TERI:TBC)	University of Virginia	Nine dimensions ^B that measure instructional quality and presence of research-based instruction practices that support readers — five dimensions for foundational skills and four for text-based comprehension	Use the contact form here to enroll
Classroom Observation Protocol for Math	Integrity Walk tool	UnboundEd	Seven domains that measure key aspects of curriculum usage highlighted in research	
	Mathematical Quality of Instruction (MQI) rubric	Heather Hill, Center for Education Policy Research, Harvard University	Three dimensions ^C that measure the quality of math content as well as interactions between teachers, students, and content	Complete the request form here to enroll in asynchronous and self-paced training ^D

B The nine dimensions in the Classroom Observation Protocol that were sourced from the Tools for Equitable Reading Instruction rubrics (TERI:FS and TERI:TBC) are a subset of the two source rubrics. The select dimensions, five out of 13 from TERI:FS and four out of 12 from TERI:TBC, were selected following an analysis of the TERI dimensions that were most predictive of student outcomes. Information about the TERI rubrics, including requests for access to the full rubrics and scoring supports, can be found [here](#).

C The three dimensions in the Classroom Observation Protocol that were sourced from the Mathematical Quality of Instruction (MQI) rubric are a subset of the source rubric. These three dimensions were selected for conceptual alignment with sub-constructs in the Shared Measures Construct Map. The full MQI rubric may be accessed [here](#).

D For the purposes of this toolkit, RPPL recommends three training modules: “Classroom Work is Connected to Mathematics,” “Richness of the Mathematics,” and “Working with Students and Mathematics”

4 Toolkit Development

This toolkit represents consensus recommendations developed by the [Research Partnership for Professional Learning](#) (RPPL) working with a set of **key organizations all focused on building the conditions for more effective curriculum-based PL**.



We are advancing educational equity for every student, including those who have been historically pushed to the margins of our education system. Together, we study teacher learning to identify, share, and enact PL that improves teachers' practices and students' classroom experiences, well-being, and academic growth.



We bring together scholars to tackle persistent challenges in education with a focus on reducing educational inequities. Through applied research training, engaged scholarship, sustained partnerships, and efforts to generate actionable knowledge, our goal is to improve the creation, synthesis, and application of educational research.



We partner with districts to develop the systems, practices, and beliefs that strengthen the instructional core. We help educators implement high-quality instructional materials with integrity: aligning curriculum, assessment, and professional learning, with tools and support designed to ensure consistent, rigorous instruction that advances learning for all students.



Teaching Lab is a nonprofit organization on a mission to fundamentally shift the paradigm of teacher professional learning in pursuit of excellent educational outcomes for every child.



We partner with school systems to build and sustain the conditions, teaching, and leadership to ensure that the students furthest from opportunity succeed in school and in life.



We strengthen instructional leadership in schools, school systems, and states to ensure teachers have the support they need to improve learning experiences and learning outcomes for students—with attention to students of color, students experiencing poverty, multilingual learners, and students with disabilities.



We work to end the injustice of educational inequality by providing excellent teachers to the students who need them most and by advancing policies and practices that ensure effective teaching in every classroom.



By cultivating the mindsets, knowledge, and skills at the heart of truly transformative teaching and learning, we can break the predictability of historic achievement patterns so all kids thrive.

Alongside the six organizations that anchored the development of the toolkit, we also received invaluable feedback from the following partner organizations below on the **Math-specific components**, gathered through a series of focus groups:



Toolkit Development Process

The instruments in this toolkit are the result of a two-year consensus process that balanced academic rigor with practical feasibility.



STAGE 01

Identifying Areas of Focus

Working group members identified a series of shared constructs and sub-constructs that each organization considered central to its theory of action about how high-quality instructional materials and curriculum-based PL could improve classroom outcomes.

STAGE 02

Reviewing Possible Measurement Instruments and Items

The group conducted a review of instruments used in research and practice that measured the shared constructs. This culminated in a comprehensive literature review that identified over 4,000 articles, reports, and briefs, which were narrowed to more than 500 sources for a close reading.

STAGE 03

Constructing a Shortlist

Research leads in the working group conducted an initial screening of instruments for relevance, quality, and feasibility. Then they created a shortlist of 4–8 instruments per sub-construct, attending especially to content alignment, psychometric evidence, and usability in practice.

STAGE 04

Selecting Measurement Tools

Working group participants individually reviewed each instrument shortlisted for each sub-construct, assessing strengths and limitations, including psychometric rigor and ease of administration. Then, the group collaboratively built recommendations from the short-listed options, selecting tools that would effectively meet measurement needs while maintaining a manageable number of items that could be used across different contexts and respondents.

STAGE 05

Piloting and Adapting Measures

Organizations piloted a subset of instruments and items with district partners to test feasibility and relevance in practice. The insights from the pilot and feedback from working group members led RPPL to refine and adapt the instruments into a common measurement system that could be implemented across subject areas.

5

Preliminary Insights from Year 1 Pilot

In Spring 2025, several PL providers within the RPPL network partnered with districts to pilot a subset of the measurement toolkit focused on ELA curriculum implementation. The shared measures pilot informed key updates to the toolkit, which included:

- Shifting from an ELA-specific toolkit to a **subject-agnostic framework with ELA- and Math-specific measures**, enabling use across content areas for PL providers and district leaders alike.
- Restructuring the measurement toolkit as a **Theory of Action** that highlights the key levers district leaders and PL providers can use to improve HQIM implementation and related student outcomes. This included replacing the School & System Conditions dimension with the Support for Instructional Leaders dimension as a key lever for driving the Instructional Leadership dimension.
- **Combining academic and social-emotional learning sub-constructs** into a single student outcomes dimension, reflecting the many connections and feedback loops between these outcomes.
- Refining the criteria for what's included in the toolkit to focus on constructs and measures directly **related to HQIM implementation**, rather than those that measure high-quality leadership, professional learning, or instruction in general. We also prioritized measures that apply across **all stages of HQIM implementation post adoption**.
- **Adding teacher collaboration** as a key feature of CBPL and a key driver of high-quality implementation of HQIM for all students, in alignment with RPPL's publication [Defining Curriculum-Based Professional Learning: Building a Common Language](#), and feedback received on the original toolkit.
- Adding **opportunities to triangulate data across sources** and **clear pathways** for tailoring the toolkit for different uses and audiences.

Through our [Data and Infrastructure](#) initiative, RPPL analyzed and visualized the Year 1 shared measures data of the PL providers participating in the pilot. These analyses provided a deeper view of each PL organization's CBPL efforts supporting curriculum shifts in various district contexts and offered shared benchmarks to surface strengths and opportunities to refine their PL design.

In Year 2, RPPL partners will continue piloting the ELA shared measures with a focus on four key learning questions:

- What about PL design has to be happening to drive instructional improvement?
- What aspects of PL design drive instructional improvement?
- How does train-the-trainer compare to direct-to-teacher PL (e.g., scale vs. quality)?
- What supports should PL providers prioritize for supporting HQIM implementation in ELA?

By measuring similar outcomes using the same instruments and approaches, the pilot will generate shared learning for the RPPL partners and the field about supporting HQIM implementation through PL.

6

Implementation Snapshots

PL Network in Rhode Island: Common Measures for Shared Improvement

The Professional Learning Network in RI (PL Network) is a partnership between the Rhode Island School Superintendents Association and the Annenberg Institute that brings together Rhode Island districts to collaborate and learn from one another on improving classroom instruction and student outcomes through CBPL. The PL Network uses shared measures to monitor district progress, guide continuous improvement, and strengthen collective learning.

In Year 1, the PL Network initially relied upon the existing measurement tools in each of the six districts to track progress, but the approach proved time-consuming and difficult to sustain. When the ELA Measurement Toolkit was released, the network pivoted and piloted the student, teacher, and leader surveys as a one-time pulse check to learn:

- how students were experiencing curriculum and instruction,
- how teachers were experiencing professional learning, and
- how leaders perceived PL and curriculum shifts.

Partner districts found the data compelling, with several incorporating them into school board presentations and planning processes for the next school year. For example, in one district the student survey showed that students did not feel like they were “thinking hard” in class. At the same time, teachers said they both did not have access to the materials necessary to implement their curriculum and that their professional learning did not equip them to help deepen students’ understanding of the content. The aligned teacher and student surveys helped the district identify teacher support for deeper high-quality curriculum implementation as a next step for their professional learning strategy.

Building on learnings from Year 1, the network is narrowing its focus in Year 2 to elementary and middle grade math, aiming to deepen students’ cognitive engagement and strengthen readiness for Algebra I by the end of 9th grade. In line with these new learning goals, the network selected a subset of math-specific items from the updated toolkit to serve as a shared measurement system across the PL Network. Surveys will be administered three times a year and embedded into existing district data routines to reduce burden on staff. Year 2 data will inform deep dive visits to each district, where network-wide trends will be shared for collective learning and district-specific findings will support joint meaning-making and progress monitoring against each district’s goals.

The measurement toolkit has been designed for the very purpose of being nimble and adaptable across contexts and evolving priorities. For the PL Network, that meant using it in Year 1 as a one-time pulse check and then adapting it to a narrower math focus in Year 2.

Instruction Partners: Communicating with Partners

As one of RPPL's partners piloting the ELA shared measures in Spring 2025, Instruction Partners (IP) set out to test the toolkit and help inform this update. IP integrated the teacher and leader survey items into its existing instruments. Incorporating the instruments from the toolkit helped deepen data collection and strengthen conversations with district partners about conditions for effective PL and curriculum implementation.

Using Year 1 data from the survey items, along with additional qualitative data from focus groups, interviews, and artifacts, IP produced diagnostic reports for its school and district partners. These reports summarized strengths and opportunities for improvement across the IP's Enabling Conditions framework. Findings were shared at summer leadership summits and used to guide district leaders' planning for the new school year. Importantly, because the survey items are now common measures across partners, IP can not only provide districts with consistent, comparable yearly data but also benchmark implementation across partners to drive continuous improvement.

IP plans to continue to embed the toolkit items into its existing instruments, collecting data to support diagnostic reporting for its district partners while contributing to the Year 2 ELA shared measures pilot as well.

7

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Endnotes

1. CCSSO, 2021, 2024; Doan et al., 2022; EdReports, 2025; Opfer et al., 2017; Partelow & Shapiro, 2018; Steiner, 2024
2. CCSSO, 2024; Chu et al., 2022; Darling-Hammond et al., 2017; EdReports, 2025; Steiner, 2017
3. Agodini et al., 2009; Blazar et al., 2019; Boser et al., 2015; Chingos & Whitehurst, 2012; Gallagher, 2021; Lynch et al., 2019; Novikoff & Dee, 2025; Steiner, 2017
4. Alicea et al., 2023; Chingos & Whitehurst, 2012; Partelow & Shapiro, 2018; Polikoff, 2018; Steiner, 2017
5. Alicea et al., 2023
6. Ward et al., 2024; EdReports, 2025
7. Miller & Partelow, 2019; National Comprehensive Center, 2023; Short & Hirsch, 2020; Steiner, 2024
8. Darling-Hammond et al., 2017; Desimone, 2009; Hill et al., 2013, 2022; Hill & Papay, 2022
9. Doan & Shapiro, 2023; Eells, 2011; TNTF, 2024; Wolf & Brown, 2023; Yaeger et al., 2022
10. Wolf & Brown, 2023; Yaeger et al., 2022
11. Hill et al., 2022; Hill & Erickson, 2019; Kim, 2019; Kim et al., 2017; McLaughlin & Mitra, 2001; McMaster et al., 2014; Steiner, 2017
12. Healey & Stroman, 2021; Immordino-Yang et al., 2019
13. ACT, 2006; Center for Public Education, 2025; Shanahan, 2025; Steiner, 2024
14. Desimone et al (2025)
15. Boguslav & Cohen (2023); Briggs & Alzen (2019)
16. Danielson (2012); Marshall (2013)

Instruments

Leader Survey

Provides opportunities to engage in activities that build a deeper understanding of the evidence base, content, and pedagogy undergirding CBPL and HQIM (e.g. observations, lesson plans, student artifacts, research).

1. To what extent did the PL you experienced between [time] through today help you understand the evidence base for the use of high-quality instruction materials?

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

2. To what extent did the PL you experienced between [time] through today help you understand the pedagogical ideas within [the curriculum]?

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

3. To what extent did the PL you experienced between [time] through today help you develop a coherent vision for instruction aligned to [the curriculum]?

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

4. To what extent did the PL you experienced between [time] through today help you communicate a coherent vision for instruction aligned to [the curriculum]?

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

Provides opportunities to diagnose system strengths and gaps, and plan targeted supports for CBPL and HQIM implementation.

1. To what extent did the PL you experienced between [time] through today help you identify strengths and gaps in your system related to [curriculum] implementation?

Not at all

Minimally

Somewhat

To a great extent

To a very great extent

2. To what extent did the PL you experienced between [time] through today help you plan targeted supports to address identified gaps in [curriculum] implementation?

Not at all

Minimally

Somewhat

To a great extent

To a very great extent

3. To what extent did the PL you experienced between [time] through today help you align system-level supports with the needs of teachers and students in implementing the [curriculum]?

Not at all

Minimally

Somewhat

To a great extent

To a very great extent

Provides opportunities to engage in data-driven continuous improvement cycles (e.g. reflection, assessment, action planning) to support HQIM implementation.

1. To what extent did the PL you experienced between [time] through today help you use data (e.g. student experience data, student assessment data, teacher observation data) to plan for [curriculum] implementation?

Not at all

Minimally

Somewhat

To a great extent

To a very great extent

2. To what extent did the PL you experienced between [time] through today help you use data (e.g. student experience data, student assessment data, teacher observation data) to support teachers with implementing the [curriculum]?

Not at all

Minimally

Somewhat

To a great extent

To a very great extent

3. To what extent did the PL you experienced between [time] through today help you engage in continuous improvement cycles (e.g. reflection, assessment, action planning) to support teachers in implementing the [curriculum]?

Not at all

Minimally

Somewhat

To a great extent

To a very great extent

Instructional leaders communicate a clear vision for how CBPL and HQIM can support student learning and well-being.

1. To what extent has [your district] established a coherent strategy for mathematics teaching and learning?

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

2. To what extent has [your district] established a strong vision for how our [curriculum] materials can support student learning?

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

3. To what extent has [your district] established clear expectations for how you should support teachers with implementing the [curriculum] materials effectively?

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

Instructional leaders develop and execute a clear implementation plan and the supporting structures needed for effective CBPL and HQIM implementation.

1. To what extent has [your district] developed a strong plan for how to support teachers with using [curriculum]?

Not at all

Minimally

Somewhat

To a great extent

To a very great extent

2. To what extent has [your district] established structures (e.g., roles, schedules, routines) that support the effective implementation of high-quality instructional materials?

Not at all

Minimally

Somewhat

To a great extent

To a very great extent

Instructional leaders engage in data-driven continuous improvement cycles to support CBPL and HQIM implementation.

1. To what extent does feedback from teachers inform the focus of your professional learning experiences on [curriculum]?

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

2. To what extent does teacher observation data inform the focus of your professional learning experiences on [curriculum]?

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

3. To what extent does student data inform the focus of your professional learning experiences on [curriculum]?

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

Provides opportunities to engage in activities that build a deeper understanding of the evidence base, content, and pedagogy undergirding HQIM.

1. To what extent did the PL you've experienced between [time] through today provide you with opportunities to see concrete examples of effective [curriculum] use?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

2. To what extent did the PL you've experienced between [time] through today provide you with opportunities to reflect on the evidence base behind the [curriculum]?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

3. To what extent did the PL you've experienced between [time] through today provide you with opportunities to share beliefs about the quality of the [curriculum]?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

4. To what extent did the PL you've experienced between [time] through today provide you with opportunities to review instructional materials from the [curriculum]?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

5. To what extent did the PL you've experienced between [time] through today provide you with opportunities to identify core learning objectives from the [curriculum]?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

6. To what extent did the PL you've experienced between [time] through today provide you with opportunities to consider the alignment between [curriculum] and state standards?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

7. To what extent did the PL you've experienced between [time] through today provide you with opportunities to understand the pedagogical principles and instructional strategies that shape the [curriculum]?

- No opportunities
- Very limited opportunities
- Limited opportunities
- Substantial opportunities
- Extensive opportunities

8. To what extent did the PL you've experienced between [time] through today provide you with opportunities to complete the work students would be doing?

- No opportunities
- Very limited opportunities
- Limited opportunities
- Substantial opportunities
- Extensive opportunities

9. To what extent did the PL you've experienced between [time] through today provide you with opportunities to prepare for implementing instructional routines from [curriculum] lesson?

- No opportunities
- Very limited opportunities
- Limited opportunities
- Substantial opportunities
- Extensive opportunities

10. To what extent did the PL you've experienced between [time] through today provide you with opportunities to rehearse key moments of instruction for an upcoming lesson?

- No opportunities
- Very limited opportunities
- Limited opportunities
- Substantial opportunities
- Extensive opportunities

11. To what extent did the PL you've experienced between [time] through today provide you with opportunities to select core tasks from a [curriculum] lesson?

- No opportunities
- Very limited opportunities
- Limited opportunities
- Substantial opportunities
- Extensive opportunities

Provides opportunities for guided practice, reflection, and feedback with adapting HQIM for student needs and identities while maintaining integrity to core components of HQIM.

1. To what extent did the PL you've experienced between [time] through today provide you with opportunities to analyze student work?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

2. To what extent did the PL you've experienced between [time] through today provide you with opportunities to adapt core tasks from a [curriculum] lesson to address student needs?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

3. To what extent did the PL you've experienced between [time] through today provide you with opportunities to adapt core tasks from a [curriculum] lesson to better affirm student identities?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

4. To what extent did the PL you've experienced between [time] through today provide you with opportunities to reflect on the effectiveness of teachers' instruction using [curriculum]?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

5. To what extent did the PL you've experienced between [time] through today provide you with opportunities to receive constructive feedback on lesson preparation?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

6. To what extent did the PL you've experienced between [time] through today provide you with opportunities to receive constructive feedback on lesson facilitation?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

7. To what extent did the PL you've experienced between [time] through today provide you with opportunities to receive constructive feedback on the use of student work/data?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

8. To what extent did the PL you've experienced between [time] through today provide you with opportunities to embed strategies for building strong student-teacher relationships into a [curriculum] lesson?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

Provides opportunities for teachers to collaborate with peers to plan for instruction and assess its impact on student learning and well-being.

1. To what extent did the PL you've experienced between [time] through today provide you with opportunities to learn effective strategies you can use to collaborate with teachers at your school outside of PL sessions?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

2. To what extent did the PL you've experienced between [time] through today provide you with opportunities to collaborate with teachers to understand a unit or lesson from the [curriculum]?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

3. To what extent did the PL you've experienced between [time] through today provide you with opportunities to collaborate with teachers to plan for instruction using [curriculum]?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

4. To what extent did the PL you've experienced between [time] through today provide you with opportunities to collaborate with teachers to review data on students' mastery of objectives from [curriculum]?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

Teacher Survey

Instructional leaders communicate a clear vision for how CBPL and HQIM can support student learning and well-being.

- 1. To what extent has [your district] established a coherent strategy for mathematics teaching and learning?**

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

- 2. To what extent has [your district] established a strong vision for how our [curriculum] materials can support student learning?**

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

- 3. To what extent has [your district] established clear expectations for how to implement the [curriculum] materials effectively?**

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

Instructional leaders develop and execute a clear implementation plan and the supporting structures needed for effective CBPL and HQIM implementation.

1. To what extent has [your district] developed a strong plan for how to support teachers' with using [curriculum]?

Not at all

Minimally

Somewhat

To a great extent

To a very great extent

2. To what extent has [your district] established structures (e.g., roles, schedules, routines) that support the effective implementation of high-quality instructional materials?

Not at all

Minimally

Somewhat

To a great extent

To a very great extent

Instructional leaders engage in data-driven continuous improvement cycles to support CBPL and HQIM implementation.

1. To what extent does feedback from teachers inform the content of your professional learning experiences focused on [curriculum]?

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

2. To what extent does teacher observation data inform the content of your professional learning experiences focused on [curriculum]?

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

3. To what extent does student data inform the content of your professional learning experiences focused on [curriculum]?

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

Provides opportunities to engage in activities that build a deeper understanding of the evidence base, content, and pedagogy undergirding HQIM.

1. To what extent did the PL you've experienced between [time] through today provide you with opportunities to see concrete examples of effective [curriculum] use?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

2. To what extent did the PL you've experienced between [time] through today provide you with opportunities to reflect on the evidence base behind the [curriculum]?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

3. To what extent did the PL you've experienced between [time] through today provide you with opportunities to share beliefs about the quality of the [curriculum]?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

4. To what extent did the PL you've experienced between [time] through today provide you with opportunities to review instructional materials from the [curriculum]?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

5. To what extent did the PL you've experienced between [time] through today provide you with opportunities to identify core learning objectives from the [curriculum]?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

6. To what extent did the PL you've experienced between [time] through today provide you with opportunities to consider the alignment between [curriculum] and state standards?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

7. To what extent did the PL you've experienced between [time] through today provide you with opportunities to understand the pedagogical principles and instructional strategies that shape the [curriculum]?

- No opportunities
- Very limited opportunities
- Limited opportunities
- Substantial opportunities
- Extensive opportunities

8. To what extent did the PL you've experienced between [time] through today provide you with opportunities to complete the work students would be doing?

- No opportunities
- Very limited opportunities
- Limited opportunities
- Substantial opportunities
- Extensive opportunities

9. To what extent did the PL you've experienced between [time] through today provide you with opportunities to prepare for implementing instructional routines from [curriculum] lesson?

- No opportunities
- Very limited opportunities
- Limited opportunities
- Substantial opportunities
- Extensive opportunities

10. To what extent did the PL you've experienced between [time] through today provide you with opportunities to rehearse key moments of instruction for an upcoming lesson?

- No opportunities
- Very limited opportunities
- Limited opportunities
- Substantial opportunities
- Extensive opportunities

11. To what extent did the PL you've experienced between [time] through today provide you with opportunities to select core tasks from a [curriculum] lesson?

- No opportunities
- Very limited opportunities
- Limited opportunities
- Substantial opportunities
- Extensive opportunities

Provides opportunities for guided practice, reflection, and feedback with adapting HQIM for student needs and identities while maintaining integrity to core components of HQIM.

1. To what extent did the PL you've experienced between [time] through today provide you with opportunities to analyze student work?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

2. To what extent did the PL you've experienced between [time] through today provide you with opportunities to adapt core tasks from a [curriculum] lesson to address student needs?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

3. To what extent did the PL you've experienced between [time] through today provide you with opportunities to adapt core tasks from a [curriculum] lesson to better affirm student identities?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

4. To what extent did the PL you've experienced between [time] through today provide you with opportunities to reflect on the effectiveness of your instruction using [curriculum]?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

5. To what extent did the PL you've experienced between [time] through today provide you with opportunities to receive constructive feedback on lesson preparation?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

6. To what extent did the PL you've experienced between [time] through today provide you with opportunities to receive constructive feedback on lesson facilitation?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

7. To what extent did the PL you've experienced between [time] through today provide you with opportunities to receive constructive feedback on the use of student work/data?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

8. To what extent did the PL you've experienced between [time] through today provide you with opportunities to embed strategies for building strong student-teacher relationships into a [curriculum] lesson?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

Provides opportunities for teachers to collaborate with peers to plan for instruction and assess its impact on student learning and well-being.

1. To what extent did the PL you've experienced between [time] through today provide you with opportunities to learn effective strategies you can use to collaborate with other teachers at your school outside of PL sessions?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

2. To what extent did the PL you've experienced between [time] through today provide you with opportunities to collaborate with other teachers to understand a unit or lesson from the [curriculum]?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

3. To what extent did the PL you've experienced between [time] through today provide you with opportunities to collaborate with other teachers to plan for instruction using [curriculum]?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

4. To what extent did the PL you've experienced between [time] through today provide you with opportunities to collaborate with other teachers to review data on students' mastery of objectives from [curriculum]?

No opportunities

Very limited opportunities

Limited opportunities

Substantial opportunities

Extensive opportunities

Teachers see value in HQIM for supporting student learning and well-being.

1. To what extent do you believe that [your district]'s adopted mathematics [curriculum] can lead to better achievement outcomes for students?

Not at all confident

Minimally confident

Somewhat confident

Quite confident

Very confident

Teachers have self efficacy in adapting HQIM for student needs and identities while maintaining integrity to core components of HQIM.

1. How confident are you in your ability to effectively use [your district]’s adopted mathematics [curriculum] with students performing below grade-level in mathematics?

Not at all confident
Minimally confident
Somewhat confident
Quite confident
Very confident

2. How confident are you in your ability to effectively use [your district]’s adopted mathematics [curriculum] with students performing above grade-level in mathematics?

Not at all confident
Minimally confident
Somewhat confident
Quite confident
Very confident

3. How confident are you in your ability to effectively use [your district]’s adopted mathematics [curriculum] with students who have individualized education programs (IEPs) or the equivalent?

Not at all confident
Minimally confident
Somewhat confident
Quite confident
Very confident

4. How confident are you in your ability to effectively use [your district]’s adopted mathematics [curriculum] with students who are designated as English Learners (ELs)?

Not at all confident
Minimally confident
Somewhat confident
Quite confident
Very confident

Teachers believe all students can excel at the rigorous grade-level tasks included in HQIM.

1. Which of the following best describes how challenging [your district]’s adopted [curriculum] is for your students?

Too challenging for the majority of my students

At the right level for the majority of my students

Not challenging enough for the majority of my students

Teachers implement HQIM [curriculum] by drawing on the underlying evidence base, content and pedagogy.

1. When planning for your lessons last year, how often did you use [curriculum] to choose objectives?

Never
For a few lessons
For about half of my lessons
For most of my lessons
For nearly all lessons

2. When planning for your lessons last year, how often did you use [curriculum] to refresh your content knowledge?

Never
For a few lessons
For about half of my lessons
For most of my lessons
For nearly all lessons

3. When planning for your lessons last year, how often did you use [curriculum] to select tasks and activities?

Never
For a few lessons
For about half of my lessons
For most of my lessons
For nearly all lessons

4. When planning for your lessons last year, how often did you use [curriculum] to build assessments?

Never
For a few lessons
For about half of my lessons
For most of my lessons
For nearly all lessons

5. When planning for your lessons last year, how often did you use [curriculum] to plan your entire lesson from start to finish?

Never
For a few lessons
For about half of my lessons
For most of my lessons
For nearly all lessons

Teachers adapt HQIM for student learning needs and identities while maintaining integrity to core components of HQIM (grade-level rigor, standards-alignment, accurate content portrayal).

1. When planning for or implementing lessons from [curriculum], how often do you adapt objectives for student needs/backgrounds?

Never

For a few lessons

For about half of my lessons

For most of my lessons

For nearly all lessons

2. When planning for or implementing lessons from [curriculum], how often do you adapt tasks and activities for student needs/backgrounds?

Never

For a few lessons

For about half of my lessons

For most of my lessons

For nearly all lessons

3. When planning for or implementing lessons from [curriculum], how often do you adapt assessments for student needs/backgrounds?

Never

For a few lessons

For about half of my lessons

For most of my lessons

For nearly all lessons

4. When planning for or implementing lessons from [curriculum], how often do you adapt other aspects of how you facilitate the lesson for student needs/backgrounds?

Never

For a few lessons

For about half of my lessons

For most of my lessons

For nearly all lessons

Teachers routinely collaborate with peers about HQIM implementation and adaptation outside of formal collaborative PL structures.

1. To what extent do you collaborate with other teachers to plan for instruction using [curriculum] outside of structured PL sessions?

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

2. To what extent do you feel supported by colleagues in achieving your goals for improving your teaching?

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

Student Survey

Teachers believe all students can excel at the rigorous grade-level tasks included in HQIM.

1. In the last week, how often did your teacher make you feel like you're good at mathematics?

- Never
- Once
- Two or three times
- Every lesson
- Many times per lesson

2. In the last week, how often did your teacher notice when you give a strong answer?

- Never
- Once
- Two or three times
- Every lesson
- Many times per lesson

3. In the last week, how often did your teacher share your ideas with other students?

- Never
- Once
- Two or three times
- Every lesson
- Many times per lesson

4. In the last week, how often did your teacher say positive things about your work in front of other students?

- Never
- Once
- Two or three times
- Every lesson
- Many times per lesson

5. In the last week, how often did your teacher make you feel like it's okay to get an answer wrong?

- Never
- Once
- Two or three times
- Every lesson
- Many times per lesson

6. In the last week, how often did your teacher ask you to explain your ideas?

- Never
- Once
- Two or three times
- Every lesson
- Many times per lesson

Students engage deeply with content through the work of the lesson (i.e. self-monitoring, managing frustration when faced with challenging tasks, employing effective problem-solving strategies, and clearly explaining one's thought process).

In the last week, how often did the following happen in your math class?

1. Many different students shared their ideas.

Never
Once
Two or three times
Every lesson
Many times per lesson

2. Even students who aren't sure of their answers have a chance to share their ideas.

Never
Once
Two or three times
Every lesson
Many times per lesson

3. We talk about different ways to understand the same idea.

Never
Once
Two or three times
Every lesson
Many times per lesson

4. I use my thinking skills, rather than just memorizing things.

Never
Once
Two or three times
Every lesson
Many times per lesson

5. I have time to explain my ideas.

Never
Once
Two or three times
Every lesson
Many times per lesson

6. I get to develop my own ideas.

Never
Once
Two or three times
Every lesson
Many times per lesson

Students feel affirmed and have positive mindsets about engaging in content.

To what extent do you agree with the following statements...

1. I see myself as a math person.

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

2. My classmates see me as a math person.

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

3. My teacher sees me as a math person.

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

4. I understand the math I have studied.

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

5. I can overcome setbacks in math.

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

6. I can do well in math.

Not at all
Minimally
Somewhat
To a great extent
To a very great extent

Students feel they belong to the classroom community.

1. How well do people in your class understand you as a person?

Do not understand at all
Understand a little
Understand somewhat
Understand quite a bit
Completely understand

2. How connected do you feel to the teacher in this class?

Not at all connected
Slightly connected
Somewhat connected
Quite connected
Extremely connected

3. How much respect do students in this class show you?

No respect at all
A little bit of respect
Some respect
Quite a bit of respect
A tremendous amount of respect

4. How much do you matter to others in this class? (not included for grades 3–5)

Do not matter at all
Matter a little bit
Matter somewhat
Matter quite a bit
Matter a tremendous amount

5. Overall, how much do you feel like you belong in this class?

Do not belong at all
Belong a little bit
Belong somewhat
Belong quite a bit
Completely belong

Classroom Observation

Teachers implement HQIM curriculum by drawing on the underlying evidence base, content and pedagogy.

Teachers adapt HQIM for student learning needs and identities while maintaining integrity to core components of HQIM (grade-level rigor, standards-alignment, accurate content portrayal).

Students engage deeply with content through the work of the lesson (i.e. self-monitoring, managing frustration when faced with challenging tasks, employing effective problem-solving strategies, and clearly explaining one's thought process).

HQIM Implementation Rubric

DOMAIN	ITEM	1 — NOT YET ALIGNED	2 — PARTIALLY ALIGNED	3 — FULLY ALIGNED	COULDN'T BE DETERMINED
MATERIALS USE	Tasks and materials are HQIM-based (not replaced or skipped).	HQIM materials are not used.	HQIM materials are used for part of the time.	HQIM materials are used for the entirety of the time.	Couldn't be determined during observation.
LESSON STRUCTURE AND EMBEDDED GUIDANCE	The teacher follows the lesson structure from HQIM to maintain the lesson's goal. Teacher uses the HQIM questions, task supports, and/or strategies.	The teacher does not follow the HQIM lesson structure or guidance.	The teacher partially follows the HQIM lesson structure and guidance, but makes notable changes.	The teacher follows the HQIM lesson structure and guidance as designed.	Couldn't be determined during observation.
PACING	Pacing ensures students will have the opportunity to reach the lesson's goal.	All components are behind or rushed.	Some components are behind or rushed.	All components follow the pacing guidance.	Couldn't be determined during observation.

DOMAIN	ITEM	1 — NOT YET ALIGNED	2 — PARTIALLY ALIGNED	3 — FULLY ALIGNED	COULDN'T BE DETERMINED
CONTEXTUALIZATION	Tasks and materials are contextualized to students' lives, experiences, and individual abilities.	Tasks and materials are disconnected from students' lives, experiences, or abilities.	Tasks and materials are sometimes connected to students' lives, experiences, or abilities, but the connections are surface-level or inconsistent.	Tasks and materials are consistently contextualized to students' lives, experiences, and abilities in meaningful ways that support access to the lesson's goals.	Couldn't be determined during observation.
SCAFFOLDS FOR ACCESS	Scaffolds or supports are used as designed. Supports for ELs, IEPs, and/or unfinished learning are present and effectively reflect grade-level expectations.	Scaffolds are needed but not used.	Scaffolds are used improperly.	Scaffolds are needed and used as indicated. OR Scaffolds were not needed.	Couldn't be determined during observation.
STUDENT ENGAGEMENT	Students actively respond to grade-level tasks (verbally or in writing), demonstrating grade-level thinking and processing.	Most students are not actively responding.	Some students are actively responding. OR All students participate and complete tasks, but do not use grade-level thinking.	All students are actively responding.	Couldn't be determined during observation.
ACADEMIC DISCOURSE	Evidence of student discourse or reasoning using grade-level, content-specific language (verbal or written).	Teacher leads all discourse. Little to no student discourse is observed. OR Student discourse is observed but is not content-specific.	Teacher leads some discourse, and some student discourse is observed.	Teacher facilitates discourse. All students are engaged in discourse.	Couldn't be determined during observation.
DOMAIN	ITEM	1 — CONCERNING ADAPTATION	2 — LITTLE OR NO ADAPTATION	3 — CONSTRUCTIVE ADAPTATION	COULDN'T BE DETERMINED
ADAPTATIONS	To what extent were adaptations made to the lesson structure, lesson content, lesson pacing, or lesson delivery?	Adaptations significantly altered the lesson's structure, content, or delivery in ways that reduced the rigor and/or altered the core learning objectives.	Lesson was implemented with little or no adaptation to the structure, content, pacing, and delivery.	Adaptations enhanced access, engagement, and/or contextualization without reducing rigor or altering the core learning objectives.	Couldn't be determined during observation.

Mathematical Quality of Instruction

DOMAIN	ITEM	NO	YES
CLASSROOM WORK IS CONNECTED TO MATHEMATICS	The focus is on mathematical content during half or more of the segment (3.75 minutes or more total for a 7.5-minute segment).	Focus for majority of the segment (at least 3.75 minutes for a 7.5-minute segment) is on non-mathematical topics, or student activities that have no clear connections to developing mathematical content. Examples: Gathering or distributing materials, other administrative issues Disciplinary issues that severely impinge upon instructional time Students doing an activity (cutting, pasting, coloring) that is not clearly connected to mathematics (“bad reform”)	Focus is on mathematical content for majority of the segment (at least 3.75 minutes for a 7.5-minute segment). Examples: Teacher reviewing content from a prior lesson Teacher introducing content Students practicing content Students working on a warm-up problem while teacher takes attendance

DOMAIN	ITEM	1—NOT PRESENT	2—LOW	3—MEDIUM	4—HIGH
RICHNESS OF THE MATHEMATICS	Linking Between Representations	No linking occurs. Representations may be present, but no connections are actively made.	Links are present in a pro forma way; For example, the teacher may show the above figure and state that one quarter is one part out of four. These links will not be very explicit or detailed; both representations need not be present.	Links and connections have the features noted under High, but they occur as an isolated instance in the segment.	Links and connections are present with extended, careful work characterized by one of the following features: Explicitness about how two or more representations are related (e.g., pointing to specific areas of correspondence) OR Detail and elaboration about the relationship between two mathematical representations (e.g., noting meta-features; providing information about under what conditions the relationship occurs; discussing implications of relationship) These links will be a characterizing feature of the segment, in that they may in fact be the focus of instruction. They need not take up the majority or even a significant portion of the segment; however, they will offer significant insight into the mathematical material.

DOMAIN	ITEM	1—NOT PRESENT	2—LOW	3—MEDIUM	4—HIGH
	Explanations	No mathematical explanations are offered by the teacher or students or the “explanations” provided are simply descriptions of steps of a procedure.	A mathematical explanation occurs as an isolated instance in the segment.	Two or more brief mathematical explanations occur in the segment . OR an explanation is more than briefly present but not the focus of instruction.	One or more mathematical explanation(s) is a focus of instruction in the segment. The explanation(s) need not be most or even a majority of the segment; what distinguishes a High is the fact that the explanation(s) are a major feature of the teacher-student work (e.g., working for 2-3 minutes to elucidate the simplifying example above).
	Mathematical Sense-Making	Not present or incorrect.	Teacher and/or students focus briefly on meaning. For instance, a student may remark that $7/8$ is “almost 1” or attends to reasonableness of the solution method.	Teacher and/or students focus on meaning more than briefly (e.g., several instances within the segment or one somewhat long instance), but this work is not sustained or substantial.	Teacher and/or students focus on meaning in sustained way during segment. Need not be the entire segment, but must be substantial.

DOMAIN	ITEM	1—NOT PRESENT	2—LOW	3—MEDIUM	4—HIGH
	Multiple Procedures or Solution Methods	No evidence of multiple procedures or solution methods for single problem or a given problem type.	Teacher or student briefly mentions a second procedure or method, but the method is not discussed at length or enacted (“we also showed yesterday that you can do it XYZ”).	Multiple procedures or solution methods occur or are discussed in the segment (e.g., solving division problems in two ways), but does not include the special features listed in High, or feature these only momentarily (e.g., “this method is easier than the other” without explicit discussion of why).	Multiple procedures or solution methods occur or are discussed in the segment, and include special features: Explicit comparison of multiple procedures or solution methods for efficiency, appropriateness, ease of use, or other advantages and disadvantages Explicit discussion of features of a problem that cues the selection of a particular procedure Explicit connections between multiple procedures or solution methods (e.g., how one is like or unlike the other)

DOMAIN	ITEM	1—NOT PRESENT	2—LOW	3—MEDIUM	4—HIGH
	Patterns and Generalizations	No generalizations are developed or worked on; no patterns are noticed or extended; no definitions are built or tested.	There is brief work on developing a generalization or building a definition, but this work is undeveloped and/or is not the primary focus of the segment. OR Teachers and/or students engage in pattern-noticing and/or extending. This is done in a pro forma way (e.g. red, blue, blue, red, blue, blue, ??, blue blue).	There is work on developing a generalization, extending a pattern or building a definition, but the work is not finalized. For instance, a pattern may be noticed, extended, or reasoned about but not codified (“it looks like when we increase the coefficient, the line might get steeper”). OR Teachers and/or students develop a generalization, extend a pattern, or build a definition, but the work is not complete, clear or detailed.	The pattern or generalization is codified, AND the work is complete, clear and detailed. For instance, the teacher and/or students may carefully develop a generalization from examples in detail; or summarize and codify a pattern by describing how the pattern is generated.

DOMAIN	ITEM	1—NOT PRESENT	2—LOW	3—MEDIUM	4—HIGH
	Mathematical Language	Score here when NO mathematical terms are used. Teacher uses non-mathematical terms to describe mathematical ideas and procedures. AND/OR Teacher talk is characterized by sloppy/incorrect use of mathematical terms.	Low density of mathematical language. Not necessarily an indication that teacher is not “fluent” in mathematics, but simply a segment where few mathematical terms are used, or the same term is used over and over without features of High. Also score as Low when segment has middling density, but sloppy use.	Teacher uses mathematical language as a vehicle for conveying content, with middling density. However, the segment has few or none of the special features listed under High. Also score as Mid when segment has both features of High but includes some linguistic sloppiness or low density.	Teacher uses mathematical language correctly and fluently. Can be achieved in two ways: 1. Density of mathematical language is high during periods of teacher talk. 2. Moderate density, but also explicitness about terminology, reminding students of meaning, pressing students for accurate use of terms, encouraging student use of mathematical language. Instances of students using sophisticated mathematical vocabulary can also count toward a High.
	Overall Richness of the Mathematics	Elements of richness are present but are all incorrect. OR Elements of rich mathematics are not present.	Elements of rich mathematics are minimally present. Note that there may be isolated Mid scores in the codes of this dimension.	Elements of rich mathematics are more than minimally present but the overall richness of the segment does not rise to the level of a High. For example, a segment may be characterized by some Mid scores in the codes of this dimension or by an isolated High along with substantial procedural focus, etc.	Elements of rich mathematics are present, and either: a) There is a combination of elements that together saturate the segment with rich mathematics either through meaning or mathematical practices. OR b) There is truly outstanding performance in one or more of the elements.

DOMAIN	ITEM	1—NOT PRESENT	2—LOW	3—MEDIUM	4—HIGH
WORKING WITH STUDENTS AND MATHEMATICS	Remediation of Student Errors and Difficulties	Brief conceptual remediation occurs. OR Brief or moderate procedural remediation occurs.	Moderate (neither brief nor at length) conceptual remediation or extensive procedural remediation occurs. OR Brief pre-remediation occurs.	Teacher engages in conceptual remediation systematically and at length. Examples include: Identifying the source of student errors or misconceptions Discussing how student errors illustrate broader misunderstanding and then addressing those errors Extended pre-remediation	No remediation occurs for any of the following reasons: There are no student misunderstandings or difficulties with the content Remediation does not go beyond correcting students' answers The teacher chooses not to remediate The teacher remediation is confusing or off-track

DOMAIN	ITEM	1—NOT PRESENT	2—LOW	3—MEDIUM	4—HIGH
	Teacher uses Student Mathematical Contributions	No or very few student responses and only pro forma use of student ideas to develop the mathematics. For example, class may be dominated by teacher talk with very few student comments. OR Teacher uses student contributions but in a way that muddles or confuses the mathematics of the lesson. OR Student contributions occur but the teacher ignores them.	Students contribute and the teacher responds in a pro forma way.	The teacher uses student contributions to some degree in the development of the mathematics. Teacher may engage in features listed under High briefly, but instruction generally proceeds without strong use of student mathematical ideas.	Students' mathematical ideas are woven at length into the development of mathematical ideas during the segment. Teacher "hears" what students are saying, mathematically, and responds appropriately during instruction. In particular, teacher may comment on students' mathematical ideas, elicit further student clarification of ideas, ask other students to comment on ideas, expand on and reinforce student utterances, etc. Other markers include: • Identifying key ideas in student statement ("Mark had an interesting idea...") • Highlighting key features of student questions ("Mark was asking about whether this would work in all cases...") • Identifying a student with an idea ("Mark's method")

DOMAIN	ITEM	1—NOT PRESENT	2—LOW	3—MEDIUM	4—HIGH
	Overall Working with Students and Mathematics	No or few interactions between teacher and students. There is no remediation and little use of student ideas. OR Student mathematical contributions or difficulties occur, but teacher does not respond to or use those contributions. OR Teacher responses to student contributions are unclear or lead the segment off-track.	Teacher and students interact over content, but teacher responses are pro forma – moving instruction along with limited input from students. AND/OR There may be brief remediation.	Teacher and student interaction goes beyond pro forma exchanges to feature some use of student ideas, moderate conceptual remediation or extended procedural remediation. Portions of the clip may also feature a mix of strong and weak elements, or less-than-skillful use of student ideas.	Teacher weaves student ideas into the development of the mathematics and/or conceptually addresses misconceptions for clip. This must be done with some level of teacher skill at “hearing,” understanding, and appropriately responding to student contributions or difficulties.

