SUMMATIVE REPORT

Evaluation of the High-Quality Instructional Materials Implementation Grant Program

Prepared by Education Development Center, Inc. for Massachusetts Department of Elementary and Secondary Education.

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About EDC

Founded in 1958 and headquartered in Waltham, Massachusetts, Education Development Center (EDC) is a global nonprofit and a recognized evaluation leader with a national reputation of providing technically and methodologically rigorous and field-changing research and evaluation. EDC's 1,500 employees work on projects across all 50 U.S. states, four U.S. territories, and 80 countries.

EDC is a leader in conducting culturally responsive and equity-focused evaluations that produce meaningful findings for stakeholder use. The Evaluation Team brings experience applying rigorous methodological approaches to a wide range of research and evaluation projects, including federally supported research, studies of statewide systems, evaluations of corporate social responsibility initiatives, and foundation-funded initiatives. Grounded in an understanding of each program's unique cultural context, EDC's evaluations generate credible evidence that reflects the diverse voices of individuals and communities impacted by program activities.

EDC's evaluations are funded by federal, state, and local governments; foundations and corporate philanthropies; and nonprofits and community-based organizations. EDC's partners have included the Institute of Education Sciences, the National Science Foundation, the Chicago Department of Public Health, the Corporation for Public Broadcasting, NASA, and the Nellie Mae Education Foundation, among many more.

Executive Summary

Evaluation Overview

A growing body of evidence supports the potential influence of high-quality instructional materials (HQIM) on student learning. Too often, though, reform efforts suffer from an "implementation gap" in which evidence-based practices or interventions are adopted but not implemented with fidelity and/or sustained over time. Teacher attitudes, such as their belief in and satisfaction with the HQIM, have an influence on implementation and are an important area of focus for leaders during the initial stages of implementation.

The evaluation of the High-Quality Instructional Materials Implementation Grant program tested a theory of change developed by the Massachusetts Department of Elementary and Secondary Education (DESE) that begins with leadership establishing conditions to support implementation that will, with the support of knowledgeable and skilled educators, lead to changes in student outcomes.

> If schools and districts have the information and support they need to provide teachers with access to *high-quality, standards-aligned, culturally relevant curricular materials*…
>
> and if sustainable and collaborative professional learning structures help teachers use those materials to orchestrate student learning experiences *skillfully*—
>
> then teacher and student experiences, and ultimately student outcomes, will improve.

DESE funded EDC to conduct an evaluation of the grant and theory of change focused on changes in key teacher outcomes, and understanding which school and district structures and activities support implementation of HQIM and are associated with positive teacher outcomes. Changes in student outcomes due to implementation would not be observed during the evaluation timeline and were excluded from the study.

Summary of Findings

1. HQIM implementation led to positive changes in teacher beliefs and attitude towards the HQIM and its influence on their instruction. Teachers reported high levels of satisfaction with the process used to implement HQIM in their districts. This trend is notable because of the critical role of teacher buy-in to ensure that the HQIM is used with fidelity. As teachers spent more time implementing the HQIM, their satisfaction with it increased, there was a positive shift in teachers' expectations of students, their beliefs about student capabilities were positively impacted, and their perception of equity in HQIM

implementation improved. Further, the evaluation found the majority of teachers reported that the implementation of HQIM had "substantial" positive influence on their instruction.

2. Supports for CLSP and English learners lag behind other areas of HQIM implementation. Teachers were less satisfied with certain aspects of HQIM implementation, namely the adequacy of supports and scaffolds for English learners and students not performing at grade-level. There needs to be a concerted effort by both districts and schools to ensure that HQIM implementation sufficiently attends to the needs of multilingual learners. This can be done through embedding targeted and continuous supports into the school day (e.g., common planning time, meeting with coaches and instructional specialists) so that teachers feel equipped to advance the learning of ELs and don't negatively perceive the capabilities of EL students with the HQIM. Additionally, there is a need to support teachers and administrators in building a common understanding around what constitutes culturally and linguistically sustaining practices (CLSP) that help translate CLSP into effective instructional practice.

3. Districts made greater progress in implementation related to leadership roles and responsibilities than in other components. Overall, districts had the highest ratings in indicators related to Leadership Roles and Responsibilities than other components of implementation. Among grantee sites, implementation ratings reflected historical inequities, as districts with higher percentages of students who are Black or African-American and Hispanic or Latino tended to have the lowest ratings in each component, with the exception of Communication and Stakeholder Engagement.

4. Professional learning activities directly connected to the HQIM promoted greater teacher satisfaction and other teacher outcomes. Evaluation findings also indicated the substantial role of the teacher in HQIM implementation. Therefore, supports and structures for implementation that are focused on classroom instruction should be strengthened to contribute to positive outcomes. Supports, such as high-quality coaching and workshops aligned to the specific HQIM, can help prepare and support teachers in implementing the HQIM. Teacher experiences that were positively correlated with key outcomes were: observing other teacher's classrooms, working collaboratively to review student data, and professional learning that was relevant to the teachers.

5. Leadership practices were predictors of teacher outcomes. The direct involvement of school administrators in the HQIM implementation work was found to be crucial for teacher attitudes. Specific leadership-related strategies were identified that were predictive of more positive teacher outcomes, including administrator support for

culturally and linguistically sustaining practices, high quality two-way communication between administration and educators, ensuring teachers had access to all necessary HQIM materials, and providing sufficient time during the school day and week for HQIM instruction.

Participants in the grant program

- 52 districts and LEAs across Massachusetts
- Over 220 schools with the majority serving elementary grades
- More than 3,500 educators in classrooms implementing selected math or ELA curricula

Data collected during the period of evaluation (February 2023-June 2024)

- Teacher survey (fall 2023 and spring 2024)
- Survey of school leadership and implementation teams
- Interviews and observations of classroom teachers
- Interviews and survey of implementation consultants
- Document review

Selected Findings by Research Question

Short-Term Research Question 1. What is the composition of District Implementation Grant Leadership (DIGL) teams? What work-roles are represented on DIGL teams?

- The composition of DIGL teams across districts varies widely, with some districts having higher representation of teachers and others heavily represented by building-level administrators. The presence or absence of lead teachers in these teams also varies which could affect the HQIM implementation strategies across districts.
- DIGL team members generally bring a substantial depth of experience in school district settings, highlighting a high level of professional involvement which is critical in leading, coordinating, and implementing the HQIM initiative across multiple schools.
- There is a substantial demographic disparity between DIGL team members and the student populations they serve, primarily showing a lack of representation from African-American or Black and Hispanic or Latino members which contrasts sharply with the more diverse student demographics in these districts.

Mid-Term Research Question 1. What current district and school systems and structures around the use of HQIM, data collection, and student support are evident, and vary by district characteristics?

- Grantee districts performed much higher on implementation indicators related Leadership Readiness and Responsibilities than for other components, indicating more progress was observed in indicators of implementation in this component compared to others.
- Patterns in implementation ratings correlated to community demographics in ways that reflected longstanding inequities in public education. For example, in general, the greater the percentage of African-American or Black and Hispanic or Latino students in a district was related to lower ratings in all components, with the exception of Communications and Stakeholder Engagement.
- Implementation ratings for ELA and math HQIM were consistent for three of the four components, with the notable exception of Professional Development, where districts implementing ELA curricula tended to receive much higher ratings.
- School and district staff members pointed to the importance of having a multifaceted approach to HQIM implementation and highlighted specific, high-leverage strategies:
    - Providing educators with access to high-quality coaching and workshops aligned to the specific HQIM.
    - Ensuring that there is sufficient instructional time and student supports for all students to access the content of the HQIM.

Mid-Term Research Question 2. What are tangible ways in which teachers and districts are centering culturally and linguistically sustaining practices (CLSP) in their implementation of HQIM?

- There is a lack of consistent focus on CLSP as part of HQIM implementation. A majority of teachers were not offered CLSP related professional development (PD) during implementation. Further, there was lower teacher satisfaction around CLSP focused PD when compared to other aspects of implementation.
- A sizable portion of teachers were not interested in CLSP related PD- this could be for a variety of reasons (such as lack of confidence in the quality of CLSP-focused PD), but also illustrates that this is not only an issue of district attention.
- The most frequently observed practices in classroom instruction that aligned to DESE's key areas of CLSP were "high expectations and support" and "partnership

with students." There were no occurrences observed for practices supporting "sociopolitical awareness." Additionally, the practices observed for "cultural competence" and "community building" were at the nascent stages and were not fully realized.

Mid-Term Research Question 3. What current educator beliefs and practices (e.g., educator mindsets about instructional materials, curriculum literacy, pedagogical practices, and expectations of students) are evident?

- Specific strategies were found to be predictive of more positive teacher outcomes (buy-in and satisfaction with HQIM implementation, belief that HQIM will support equitable learner outcomes, and high expectations for students).
- Although teacher satisfaction with HQIM implementation was generally high, a notable percentage of teachers were less satisfied that implementation of the HQIM would reduce existing performance gaps among students. Teacher concerns during the implementation of HQIM were largely around the need for additional supports and scaffolds for student who are English-learners and for students not currently performing at grade-level.
- In general, educators reported positive appraisals of the implementation of HQIM in their districts through the grant program, and large majorities indicated they were satisfied with communication around implementation, opportunities to collaborate with other teachers during the grant program, and that their professional judgement was respected during the process.
- A majority of teachers reported that their instructional practice was positively influenced through the implementation of the HQIM and the Evaluation Team found that the use of content-area specific instructional tasks was positively associated with the use of higher-order thinking tasks in their classrooms.

Long- Term Research Question 1. What changes in teacher attitudes, practices, and beliefs, and district and school systems and structures are evident after one year of grant program support?

- As teachers spent more time implementing the HQIM, their satisfaction with it increased, there was a positive shift in teachers' expectations of students, their beliefs about student capabilities were positively impacted, and their perception of equity in HQIM implementation improved.

- The key factors that were positively correlated with the outcomes of interest were: observing other teacher's classrooms, working collaboratively to review student data, and professional learning that was relevant to the teachers.
- Observing other teacher's classroom had a positive correlation on three outcomes of interest, namely: teacher satisfaction, teacher belief about student capabilities, and teachers' perception of equity in HQIM implementation
- A larger percentage of students who are English-learners (EL) in a classroom was negatively correlated with teacher satisfaction and teachers' beliefs about student capabilities with respect to the HQIM. In other words, when there were more EL students in a class, the teachers were less satisfied with the HQIM over the course of the year and their beliefs about student capabilities within the HQIM also decreased over the year.
- Themes that emerged as reasons for positive shifts in implementation were around teachers feeling more confident with using the HQIM as they developed experience with it and their students developed more familiarity with the routines in the curriculum. These aspects helped with addressing issues around pacing and better equipped teachers to make adjustments and adaptations to the curriculum to meet their students' needs.

Discussion and Recommendations

The Evaluation Team provided a set of recommendations that are built from the key findings in the report, highlighting implications for future efforts to implement HQIM and noting considerations for anticipated challenges.

- **Recommendation 1**: School and district leaders should focus on providing the time and supports that will accelerate the timeline for teachers to "internalize" the HQIM, that is, develop deep understanding of the HQIM in order to anticipate student challenges and make adaptations that increased student access to the rigorous content of the HQI.
- **Recommendation 2**: Emphasize the critical school and leadership roles that made the biggest difference in implementation.
- **Recommendation 3**: Invest in building a common understanding of and commitment to CLSP.
- **Recommendation 4**: Maximize the benefits of PD and collaborative learning opportunities by finetuning their design and focus on the HQIM.

- **Recommendation 5**: Considerations for DESE to sustain the successes of the initiative and to translate the observed benefits for teachers into changes for students.

Introduction

The Massachusetts Department of Elementary and Secondary Education (DESE) High-Quality Instructional Materials (HQIM) Implementation Grant builds on earlier DESE-led efforts designed to improve student learning and achievement through the selection and effective incorporation of rigorous curricula into teacher practice. The Curriculum Ratings by Teachers (CURATE) project convenes panels of Massachusetts teachers to review and rate the quality and alignment of specific curricular materials and publishes their findings as a series of user-friendly reports that districts can use to inform their curriculum selection. DESE also launched IMplement MA, an equity-driven curriculum adoption guide that outlines an inclusive four-phase process for district leaders to select and implement the HQIM that best meet their district's local needs. DESE's efforts are situated against the growing research on related efforts by other state agencies to influence student outcomes through the lever of HQIM (National Institute for Excellence in Teaching [NIET], 2020).

A growing body of evidence supports the potential influence of HQIM on student learning (Steiner, 2017). Kane and colleagues (2016) reported that the difference in using higher-quality curriculum was comparable to over half a year of additional learning for students. Additionally, Chingos and Whitehurst (2012) found that the choice of instructional materials impacted teacher effectiveness and accounted for 1.5 times the difference in student learning between an average teacher and a teacher in the 75th percentile.

DESE (2024) defines HQIM as curricular materials that:

> [E]xhibit a coherent sequence of lessons that target learning of grade-appropriate skills and knowledge through instructional strategies that are well supported by research and other characteristics such as engaging content and inclusive design. HQIM provide a strong foundation for all students, particularly students from historically underserved groups and communities, to have equitable opportunities to excel at grade level (or beyond) and support teachers to do what they do best: make learning relevant and interactive for students while also providing data-informed, targeted individualized supports.

HQIM reflect current research in teaching and learning, emphasize more inquiry-based approaches and conceptual understanding, and cover content using texts and materials that range in complexity and that include diverse perspectives and representations. HQIM also support teachers in delivering effective instruction by building instructional coherence within and across grade levels, and they contain scaffolds and embedded assessments to help measure whether students are meeting specific learning goals (Council of Great City

Schools, 2017). Overall, HQIM can promote improvement in both teacher and student outcomes.

Improving student outcomes relies on the quality of implementation, but too often state and district reform efforts suffer from an "implementation gap"—in which evidence-based practices or interventions are adopted but are not implemented with fidelity and/or integrity or sustained over time. The result is a difference or gap between what evidence suggests about the impact of the evidence-based practice, such as HQIM, on student outcomes and what happens in practice. This implementation gap is not specific to education or curricular reform. Indeed, research from the broad field of implementation science estimates that two-thirds of implementation efforts fail or are not sustained (Burnes, 2004; Damschroder et al., 2009), and most efforts have no impact on intended recipient outcomes (Powell et al., 2014).

Key factors that influence curriculum implementation include the following:

- District- and school-level encouragement to teachers to use HQIM (Doan et al., 2021)
- Teacher self-efficacy or teacher confidence in implementing HQIM in their particular contexts (Gibson & Dembo, 1984; Posnanski, 2002)
- HQIM professional learning (PL) supports provided to teachers and school leaders (NIET, 2020)
- Use of collaborative structures for "collective sense-making," peer support, "soft accountability" among peers, and teacher professionalism (März & Kelchtermans, 2013; Priestly & Biesta, 2013; OECD, 2016).

DESE developed the HQIM Implementation Grant in response to the expected challenges with curriculum implementation to support evidence-based, culturally responsive, inclusive, and equitable implementation of high-quality materials. To ensure selected districts in their early stages of English language arts (ELA) or math HQIM adoption were positioned to implement well, the grant included funding for the following:

- Development and enactment of a comprehensive equity-driven curriculum implementation plan
- Professional development (PD) for educators, coaches, and administrators to support the skillful implementation of new HQIM

- Customized, individualized, and systematized support from an expert implementation consultant (IC) who will provide regular onsite support throughout the duration of the grant

This focus is based on DESE's (2022) theory of change, as follows:

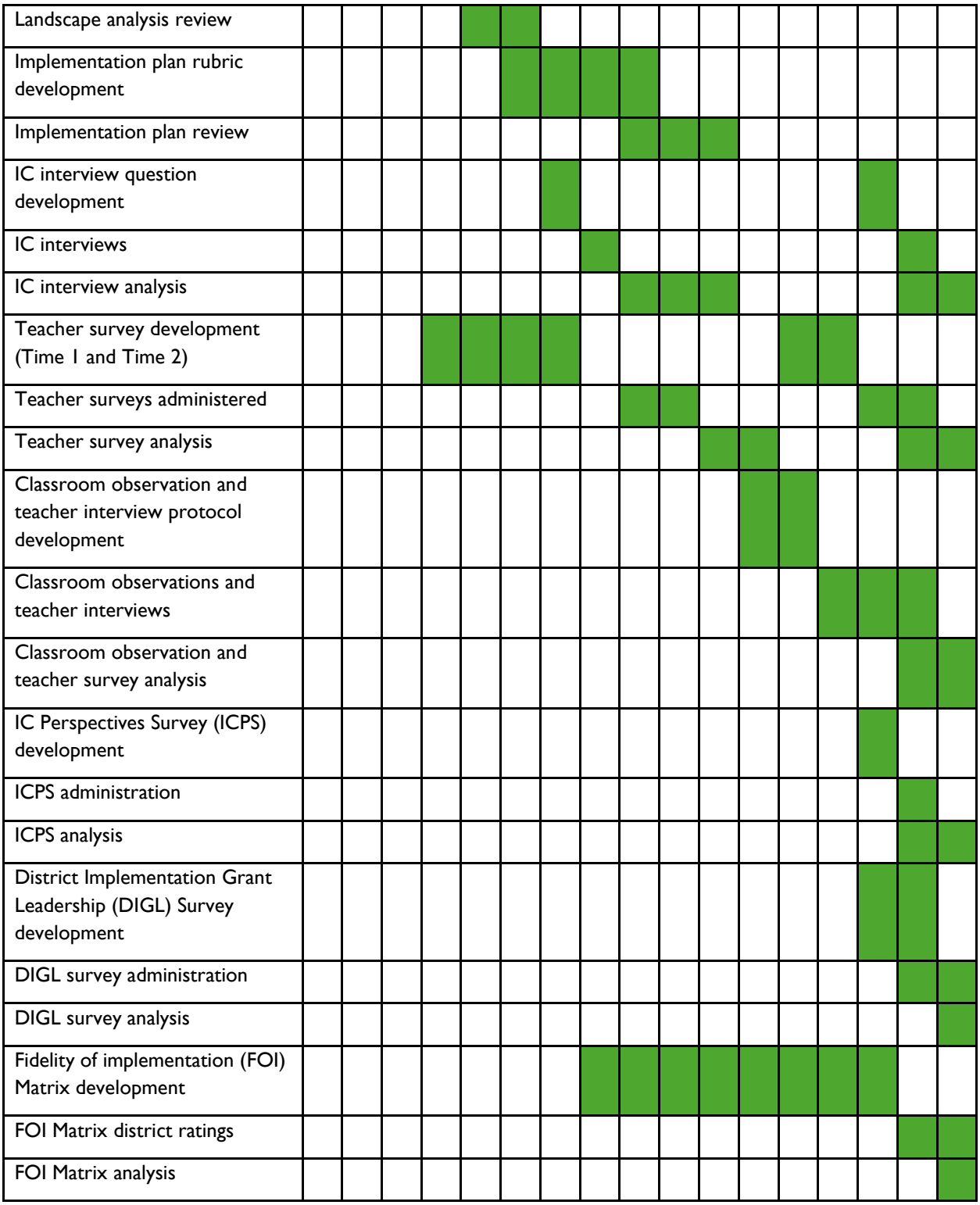
> If schools and districts have the information and support they need to provide teachers with access to *high-quality, standards-aligned, culturally relevant curricular materials*…
>
> and if sustainable and collaborative professional learning structures help teachers use those materials to orchestrate student learning experiences *skillfully*—
>
> then teacher and student experiences, and ultimately student outcomes, will improve.

DESE funded EDC to conduct a systematic evaluation of the grant and theory of action focused on formative and summative findings in particular; changes in key teacher outcomes during the period of the evaluation; and understanding which school and district structures and activities support implementation of HQIM and are associated with positive teacher outcomes.

This report outlines the evaluation methods used to answer key research questions related to HQIM implementation and details findings for each of these research questions, followed by a discussion and recommendations based on these findings. The evaluation activities were conducted from June 2023 to June 2024 and are represented in Table 1, which also includes when districts and ICs were funded. The delay in districts' continuation funds delayed the implementation of the Time 1 teacher survey by one month.

Table 1. Components and timeline of HQIM Implementation Grant activities

HQIM Implementation Grant Activity	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24	May 24	Jun 24
52 districts grant period																	
9 implementation consultants (ICs) grant period																	
EDC evaluation grant period																	
HQIM implementation framework development																	
Landscape analysis checklist development																	


Landscape analysis review
Implementation plan rubric development
Implementation plan review
IC interview question development
IC interviews
IC interview analysis
Teacher survey development (Time 1 and Time 2)
Teacher surveys administered
Teacher survey analysis
Classroom observation and teacher interview protocol development
Classroom observations and teacher interviews
Classroom observation and teacher survey analysis
IC Perspectives Survey (ICPS) development
ICPS administration
ICPS analysis
District Implementation Grant Leadership (DIGL) Survey development
DIGL survey administration
DIGL survey analysis
Fidelity of implementation (FOI) Matrix development
FOI Matrix district ratings
FOI Matrix analysis

Evaluation Design and Methods

This evaluation used an exploratory approach with a pre- and post-*assessment design* (Newcomer et al., 2015) that was focused on measuring intermediate outcomes to examine the theory of change at the heart of the grant program. The long-term goal of the evaluation is to establish an understanding of critical components and key outcomes to support future testing and examination of student outcomes. The exploratory approach enabled the Evaluation Team to build an understanding of the different contexts in which implementation occurred, with attention to examining the factors that could support or limit success, and to test the influence of experiences on a selection of educator outcomes theorized as indicators of implementation. Therefore, the goal of this design was to understand the hypothesized model for supporting HQIM implementation, thereby enhancing the understanding of the components in the DESE's theory of change.

The evaluation was designed to answer a set of research questions aligned to the theory of change and organized into different phases:

- Short-term questions focused on providing formative feedback based on initial grantee activities.
- Mid-term questions focused on proximal indicators of HQIM implementation.
- Long-term questions explored relationships between the proximal indicators and changes in implementation, which provided areas for further testing.

Table 2 lists the final set of research questions, which were originally derived from the request for responses (RFR) and proposal and then updated during the evaluation in response to shifts in project implementation. The evaluation activities that align with each research question are also presented in Table 2.

Table 2. Evaluation questions and data sources

Evaluation Questions	Data Sources
SHORT-TERM RESEARCH QUESTIONS (SRQ)	
SRQ1. What is the composition of District Implementation Grant Leadership (DIGL) teams? a) What work-roles are represented on grantee DIGL teams? b) What are the demographics of grantee DIGL teams?	• DIGL Team Survey
SRQ2. What are the key components of districts' HQIM implementation plans? a) To what extent do district plans include components or "enabling conditions" for successful HQIM implementation supported by literature? b) How and to what extent is racial equity centered in district plans?	• IP Review
MID-TERM RESEARCH QUESTIONS (MRQ)	
MRQ1. What current district and school systems and structures (e.g., systems and structures to support coaching, collaboration, professional learning) around the use of HQIM, data collection, and student support are evident, and vary by district characteristics? a) What are the perspectives of teachers and DIGL team members on how systems and structures support progress toward meeting their goals?	• IC Interview (Time 1) • IC Perspectives Survey • FOI Matrix • DIGL Team Survey • Teacher Survey Time 1 • Teacher Survey Time 2 • Teacher Interviews
MRQ2. What are tangible ways in which teachers and districts are centering culturally and linguistically sustaining practices in their implementation of HQIM?	• IC Interview (Time 2) • Teacher Survey Time 1 • Teacher Survey Time 2 • Teacher Interviews
MRQ3. What current educator beliefs and practices (e.g., educator mindsets about instructional materials, curriculum literacy, pedagogical practices, and expectations of students) are evident?	• IC Interview (Time 2) • Teacher Survey Time 1 • Teacher Survey Time 2 • Teacher Interviews • Classroom Observations
LONG-TERM RESEARCH QUESTION (LRQ)	
LRQ1. What changes in teacher attitudes, practices, and beliefs, and district and school systems and structures are evident after one year of grant program support? a) What are the perceptions of DIGL team members and teachers regarding the association between components of HQIM implementation and these changes?	• Teacher Survey Time 1 • Teacher Survey Time 2 • IC Perspectives Survey • FOI Matrix • DIGL Team Survey

The evaluation data collection strategy was aligned to the scope of the initiative and its goal of influencing district-level implementation in the grantee sites. Data sources included roles that were closely connected with the articulation of an implementation strategy in each district:

- Members of the District Implementation Grant Leadership (DIGL) team (who varied by district but typically included district and school administrators, content area coaches and/or coordinators, and classroom teachers)
- Assigned IC
- Classroom teachers and other school-based educators
- School-level administrators

Table 3 lists the data collection methods used to understand the perspectives of each key stakeholder group.

Table 3. Summary of data collection methods

Stakeholder Group	Data Collection Method
Educators in HQIM classrooms	• Teacher survey (given at the beginning and end of the school year) • Classroom observations • Interviews
Principals and other school-level administrators	• DIGL survey • Document review
DIGL team members	• DIGL survey • Document review
ICs	Implementation consultant perspectives survey (ICPS) Interviews (mid-year and end of year) Document review

Table 4 lists the data collection activities organized by data source and includes a description of each group; the number in each population; the data collection period (for some data sources, data was collected at two periods of time); description of the data source; and analysis procedures. For full details of the data sources and analysis procedures, see the Technical Report, Evaluation of the High-Quality Instructional Materials Implementation Grant Program *(*EDC, 2024*;* hereafter referred to as the '*Technical Report'*)

Table 4. Summative HQIM evaluation data collection activities

Data Source	Population	Number	Collection Period	Description	Analysis Procedures
Teacher survey	All teachers implementing the HQIM in the grantee district	4,000 (approx.)	Oct.–Nov. 2023 April–May 2024	Rating scale and open-ended questions designed to identify teacher mindsets, pedagogical practices, and attitudes related to the implementation of the HQIM in their schools and classrooms, including information about teachers, their students, and the PL activities teachers received.	Data were combined with district-level characteristics using hierarchical linear models (HLM) to identify factors associated with changes in mindset and practice and attitudes related to the implementation grant. Open-ended questions at the end of both the Time 1 and Time 2 surveys were qualitatively coded to provide an additional means of surfacing teachers' perspectives related to implementation.
DIGL survey	All members of the DIGL team in each grantee district; all lead school administrators in participating schools	253	May–June 2024	Rating scale and open-ended questions designed to assess the composition and processes of DIGL teams and how teams incorporate racial equity and inclusivity into their district plans to ensure that the implementation of HQIM is equitable and meets the diverse needs of students.	Descriptive statistics were run to summarize the distribution of DIGLs across various demographic categories (e.g., roles, ethnicity, and districts). Weighted means and aggregated measures (combining "strongly agree" and "agree" responses into a single measure) were used to provide a picture of stakeholder engagement and perceptions. Open-ended questions were qualitatively coded to gain insights into DIGL team members' perspectives on HQIM implementation.
ICPS	Each grantee district completed by each IC	52	May 2024	Rating scale and open-ended questions designed to inform each district's progress toward meeting indicators of high-quality implementation.	Weighted means and aggregated measures were used to provide a picture of district progress toward meeting indicators of high-quality implementation. Open-ended questions were coded to give a single rating for communication and for stakeholder engagement.

Classroom observations and teacher interviews	Purposeful sample of classrooms and schools	18	March–May 2024	A sample of classrooms using the HQIM were observed by two researchers who took field notes during the observation. The teacher of the observed classroom was then interviewed within 1–2 days of the observation about what was observed and the teacher's experiences with the HQIM implementation.	Notes and transcribed interviews were analyzed for themes related to centering the "why" of learning, classroom discourse, role of students in learning, role of reflection in learning, and partnership with families in learning.
IC interviews	Each IC organization	9	Sept. 2023 May 2024	Each IC team was interviewed about the role it played in supporting districts' development and the use of a landscape analysis and an implementation plan, as well as support with professional development (PD) and culturally and linguistically sustaining practices (CLSP) (Time 1); reflection on some preliminary findings from the evaluation related to pacing, PD, and scaffolding; and any changes since the last time the ICs were interviewed regarding CLSP (Time 2).	Interviews were transcribed and analyzed for themes related to IC roles in supporting HQIM implementation and district practices and barriers related to pacing, PD, scaffolding, and CLSP.
Landscape analysis review	Completed by each district with their IC	52	June–July 2023	A checklist was developed and used to assess each landscape analysis for elements related to high-quality curriculum implementation. The checklist was then used to create a feedback summary for each district.	Feedback summaries were analyzed for common themes related to instructional vision, HQIM selection, curriculum-embedded PL, leadership support, systems and structures, racial equity, and teacher buy-in.
Implementation plan review	Completed by each district with their IC	52	Oct.–Dec. 2023	A rubric was developed and used to assess implementation plans for alignment to required elements of the implementation plan (e.g., vision, theory of change), alignment to recommendations from the landscape analysis, and for elements related to high-quality implementation of curriculum.	Presence or absence of elements in implementation plans was calculated for each component and subcomponent. Components included leadership readiness and responsibility, PD, systems and structures, and communication and stakeholder engagement.

Table 5 displays the key outcomes, breakout categories, and analysis procedures for the teacher surveys, organized by evaluation question.

Table 5. Teacher surveys: Key outcomes, categories, and analysis methods

Evaluation Question	Instrument	Key Outcomes	Breakout Categories	Methods
MRQ1. What current district and school systems and structures (e.g., systems and structures to support coaching, collaboration, and PL) around the use of HQIM, data collection, and student support are evident and vary by district characteristics?	Time 2 teacher survey	• PL • Administrative support • Assessments • Curriculum materials	• District characteristics	• Descriptive statistics • 2-level HLMs (teachers and districts)
MRQ3. What current educator beliefs and practices (e.g., educator mindsets about instructional materials, pedagogical practices, and expectations of students) are evident?	Time 2 teacher survey	• High expectations • Beliefs about students • Teacher buy-in • Math/ELA Instruction • Equity • Teacher satisfaction	• Teacher years of experience • Curriculum • Grade • Class size • District characteristics • Professional learning (PL)	• Descriptive statistics • 2-level HLMs (teachers and districts)
LRQ1. What changes in teacher attitudes, practices, and beliefs, and district and school systems and structures are evident after one year of FC185 support?	Time 1 and Time 2 teacher survey	• High Expectations • Beliefs about students • Teacher buy-in • Equity • Teacher satisfaction	• Teacher years of experience • Curriculum • Grade • Class size • District characteristics • PL	• Descriptive statistics • 2-level HLMs (teachers, schools, and districts)

Note: "HLM" stands for *hierarchical linear models*.

The definitions of each expected outcome of interest are listed in Table 6 below.

Table 6. Definitions of outcomes of interest

Outcome of Interest	Definition
Teacher Satisfaction	Educators' contentment with various aspects of the curriculum implementation: overall implementation, quality, ease of use of HQIM, effectiveness of workshops and trainings, support from principals, feedback on curriculum use, teacher collaboration,

	student engagement, curriculum's potential to reduce performance gaps between racial groups, and communication about the implementation's purpose.
High Expectations	Educators' expectations for students within an HQIM intervention; in particular, teachers' beliefs about the curriculum's role in supporting high academic standards as outlined by the Massachusetts Frameworks, the alignment of these standards with student success, their confidence in their students' potential for success in school, and their perceptions of how the implementation of HQIM might impact the number of students meeting grade-level expectations.
Equity	Educators' beliefs about how equitable the HQIM is and how equitably students are treated; in particular, whether the curriculum materials are representative of their students, supportive of English learners, students with IEPs or 504 plans, and those performing below grade-level; the curriculum's attention to students' cultural and linguistic backgrounds; how the HQIM might impact the number of students from various groups (low-income households, English Language Learners, students with IEPs or 504 plans, Black/African American, and Hispanic students) meeting grade-level expectations, and their beliefs about the equitable treatment of students by teachers and administrators.
Math Explicit Instruction	Educators' use of explicit instruction practices for teaching math within an HQIM intervention; in particular, the frequency with which teachers focus on various instructional aspects in their target class, including mathematical procedures and algorithms, problem-solving strategies, mathematical reasoning, conceptual understanding, developing mathematical models, constructing mathematical arguments, and making mathematical connections.
ELA Explicit Instruction	Educators' use of explicit instruction practices for teaching ELA within an HQIM intervention; in particular, the frequency with which teachers focus on various instructional aspects in their target class, including reading foundational skills, vocabulary and knowledge development, active engagement with complex texts, text-specific tasks and assignments, active discussion with complex texts, writing conventions and sentence structures, the writing process, writing craft, and language development for English learners.
Beliefs about Students	Educators' beliefs about their students within an HQIM intervention; in particular, their perceptions of their students' ability to find help at school, learn challenging material, value their school work, and improve academic abilities through effort; as well as beliefs about the equal and fair treatment of students by teachers and administrators, the curriculum's attention to students' cultural and linguistic backgrounds, and the overall success of students in school.
Teacher Buy-In	The extent to which teachers perceive the HQIM intervention has influenced their instruction.

The data collection strategy was shaped by facets of the initiative and other considerations set by DESE. DESE was mindful of limiting the demands placed on school and district staff and limiting the number of groups communicating with district coordinators. The Evaluation Team did not communicate directly with teachers and had limited communication with district and school administrators. Instead, the Evaluation Team

worked closely with the ICs in several aspects of data collection. The ICs completed detailed district inventories that listed the membership of each district DIGL team, as well as the number of teachers engaged in the implementation of the HQIM. These inventories were the basis of the Evaluation Team's understanding of the size of the populations of these groups. The ICs also supported the administration of the teacher and DIGL surveys. For the teacher survey, the ICs communicated and coordinated with district and school leaders to ensure that all teachers (1) received the survey link to complete the survey, (2) understood the importance of the survey, and (3) and understood why it was being shared with them.

Summative Report Findings

Short-Term Research Question 1

What is the composition of District Implementation Grant Leadership (DIGL) teams? What work-roles are represented on grantee DIGL teams?

Key Findings

- Smaller districts typically have larger, more actively engaged DIGL teams, whereas larger districts often have smaller teams with less involvement from school-level administrators.
- The composition of DIGL teams across districts varies widely, with some districts having higher representation of teachers and others heavily represented by building-level administrators. The presence or absence of lead teachers in these teams also varies, which could affect the HQIM implementation strategies across districts.
- DIGL team members generally bring a substantial depth of experience in school district settings, highlighting a high level of professional involvement which is critical in leading, coordinating, and implementing the HQIM initiative across multiple schools.
- There is a significant demographic disparity between DIGL team members and the student populations they serve, primarily showing a lack of representation from African American and Hispanic members which contrasts sharply with the more diverse student demographics.

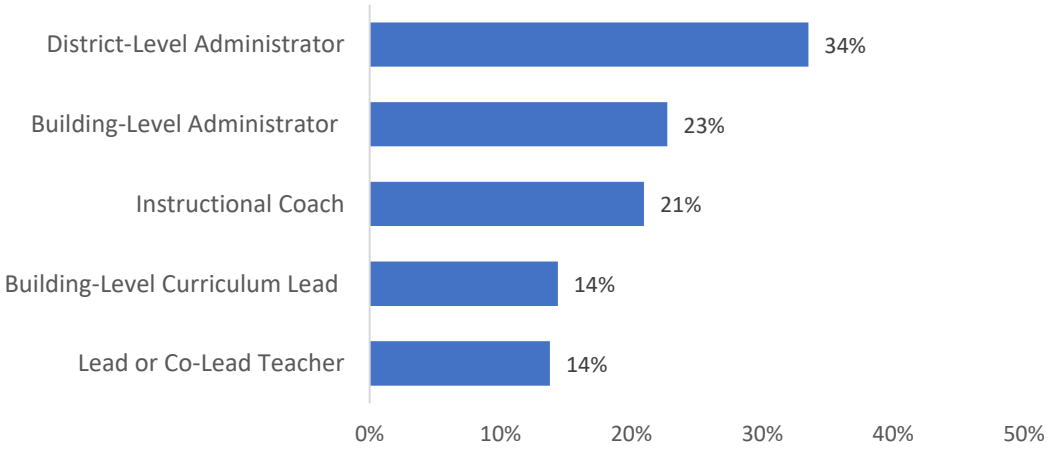
The section below will describe the nuances of these team compositions, their demographic characteristics, and the implications of varying involvement levels on the implementation of HQIM.

Building on these core findings, it is evident that the success of the MA HQIM initiative critically centers on effective leadership, as exemplified by the DIGL teams. These teams, which include a diverse group of district and school staff, are important in guiding the complex process of the MA HQIM implementation across different district settings. With team members including district and building-level administrators, curriculum leads, instructional coaches, and in some cases, lead teachers, DIGL teams use the strategies and leadership necessary to respond to the distinct needs of their context. These teams,

also known as, implementation teams or HQIM committees, engage in leadership, coordination, implementation and support.

253 DIGL members were invited to participate in the survey. We received 167 responses, resulting in a 66% response rate to the administered survey. The results below are based on the survey responses. The composition of DIGL teams is notably diverse. Across the grantee sites, district-level administrators represented the largest group, making up at least 34% of the team (n = 56) membership. Building-level administrators accounted for at least 23%, underscoring their important role in ensuring that HQIM aligned with school-specific operations and needs. Instructional coaches, who constituted at least 21% of the DIGL team membership, played an important role in supporting teachers (Figure 1). Building-level curriculum leads made up at least 14% of the teams. Lead or co-lead teachers, also represented at least 14% of the team members and brough important classroom perspectives and ensured that implementation strategies were grounded in everyday teaching realities.

Figure 1. Distribution of roles within the DIGL teams based on survey responses (n = 167)



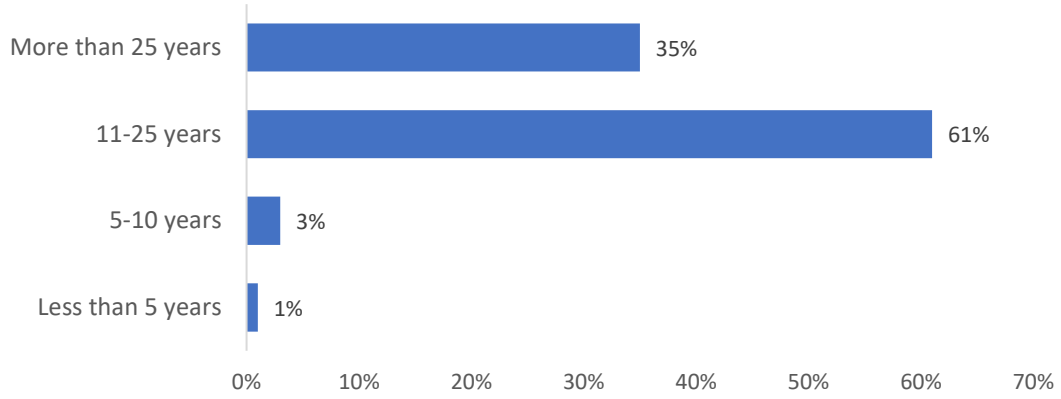
Our findings reveal that the strategic assembly of DIGL teams varies significantly across districts, which indicates that there is no uniform model for building DIGL teams. Some districts featured a higher representation of teachers, others were dominated by building-level administrators. Among 52 districts, forty-two did not include lead or co-lead teachers in their DIGL team. This variability suggested that the approach to assembling DIGL teams differed significantly, potentially impacting the implementation and support of HQIM initiatives in many ways. For example, of the 52 districts surveyed, only 10 districts had lead teachers or co-lead teachers on their DIGL team. On the other hand, twelve districts' DIGL teams were composed solely of district-level administrators. In addition, DIGL teams in 15 districts included representation from both district- and building-level administrators. Of the 52 districts, 83% of them (n = 42 districts) had at least one district-level administrator on their DIGL team.

This diversity in team composition implies that districts tailor their team assembly in response to local context and needs, which might reflect either strategic decisions or constraints imposed by existing capacities and operational methods. While the Evaluation Team has not delved into the specific reasons behind this variability in team composition, the differences observed highlight the adaptability and context specific approaches districts are taking towards implementing HQIM initiative.

(a) What Are the Demographics of Grantee DIGL Teams?

The overall profile of the DIGL team members indicated a considerable depth of experience. Among all DIGL team members, 61% had between 11 and 25 years of experience in various roles in a school district setting, and 35% possessed more than 25 years of experience (Figure 2). This reflects a high level of professional involvement in school environments, which is important to the DIGL team's role in leading, coordinating, and implementing the HQIM initiative across multiple schools.

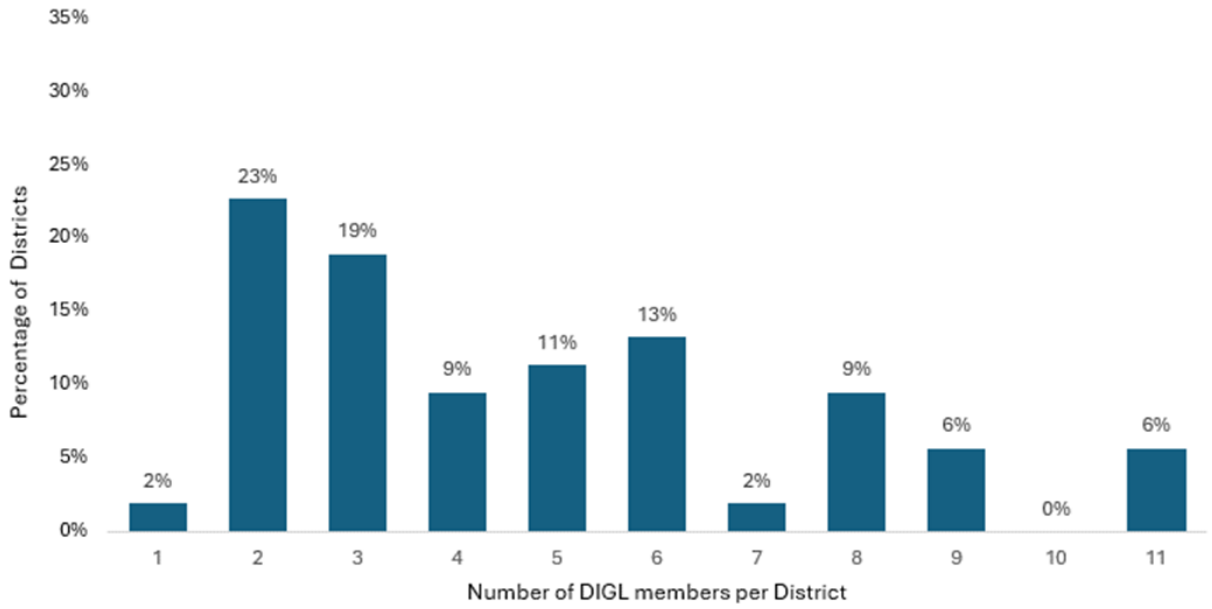
Figure 2. Overall experience of DIGL team members (n = 144)



The demographic composition of the DIGL teams shows a significant disparity when compared to the student populations they serve, with a substantial majority of DIGL survey respondents being White (81%). Other groups, such as Black or African American and Hispanic members, represented only a marginal fraction (less than 5%) of DIGL team membership across grantee sites. When compared to the student population in the various districts involved in the initiative (ranging from urban areas such as Springfield, Massachusetts, to smaller districts, such as Lee, Massachusetts), there was a clear disparity, as these districts typically had more diverse student demographics and higher proportions of Hispanic or Latino and Black or African American students.

In addition, the sizes of DIGL teams varied greatly across the surveyed districts, ranging from one to eleven members. Two-member teams were the most common, comprising 23% of the districts, followed by three-member teams at 19%. The least common team sizes were one-member and seven-member teams, each present in only 2% of the districts. Four-member teams were observed in 9% of the districts, and five-member teams accounted for 11% of the districts. Teams with six members were slightly more common, making up 13% of the districts, while eight-member teams were also found in 9%. Teams of nine and eleven members each accounted for 6% of the districts. The results again underscore the notable variation in the composition of DIGL teams across different districts.

Figure 3. Distribution of DIGL members (n=253)



District size significantly influences the composition of DIGL teams. Smaller districts (under 1,500 students) and small to mid-sized districts (1,500–3,000 students) typically feature larger DIGL teams, often consisting of seven members. In contrast, mid-sized to large districts (3,000–5,500 students) and the largest districts (over 5,500 students) tend to favor smaller teams (Table 7). This trend might indicate that the scale of the student population within a district dictates the strategic assembly of leadership teams, potentially affecting the oversight in HQIM implementation.

Table 7. DIGL team sizes by districts per student population (n = 167)

District Size	Number of DIGL Team Members								Total
	1	2	3	4	5	6	7	8	
<1,500	2.1%	20.8%	20.8%	16.7%	10.4%	0.0%	29.2%	0.0%	100%
1,500–3,000	5.9%	3.9%	23.5%	0.0%	0.0%	23.5%	27.5%	15.7%	100%
3,000–5,500	0.0%	30.3%	24.2%	0.0%	45.5%	0.0%	0.0%	0.0%	100%
>5,500	8.6%	22.9%	17.1%	22.9%	28.6%	0.0%	0.0%	0.0%	100%

The level of involvement of school-level administrators in DIGL teams varies notably across different district sizes. In smaller districts (under 1,500 students), a high percentage (42.9%) of respondents reported being “very involved,” indicating that school-level administrators were likely more integrated and actively engaged in leadership and implementation processes. This contrasted with larger districts (3,000–5,500 students), where 50% of the respondents were only “somewhat involved,” suggesting a lesser inclusion of school-level administrators in DIGL teams.

This variability in involvement levels provides an intricate view of the diversity of team compositions and extensive experience levels within DIGL teams. Such differences are important for understanding the nuanced ways in which HQIM is implemented across districts of varying sizes and may influence the effectiveness of the initiative.

Closing Remarks

- The DIGL team structure varies significantly from district to district, which might suggest that districts are adapting their team compositions based on local needs and contexts. However, the differences raise questions about the overall adaptability of the HQIM implementation process. It is also unclear how this variability in team structure contributes to the success of the HQIM implementation, given that each district tailors its approach differently.
- There is also a need to explore how DIGL teams are communicated about and utilized across different districts. The effectiveness of these teams often hinges on how well their roles and responsibilities are understood and executed within the district. Effective communication strategies and clear delineation of team functions are important components that help ensure that the teams' efforts are aligned with district goals and are effectively integrated into broader HQIM implementation strategies.

Mid-Term Research Question 1

What current district and school systems and structures (e.g., systems and structures to support coaching, collaboration, professional learning) around the use of HQIM, data collection, and student support are evident, and vary by district characteristics?

Key Findings

- Grantee districts performed much higher on ratings in Component 1: Leadership Readiness and Responsibilities than for the other three components, indicating more progress was observed in indicators of implementation in this component compared to others.
- Patterns in implementation ratings correlated to community demographics in ways that reflected longstanding inequities in public education. For example, in general, the percentage of African-American or Black and Hispanic or Latino students in a district was inversely related to FOI ratings in all components, with the exception of Component 4: Communications and Stakeholder Engagement.
- FOI ratings for ELA and math HQIM were consistent for three of the four components, with the notable exception of Component 2: Professional Development, where districts implementing ELA curriculum tended to receive much higher ratings.
- School and district staff members involved in the grant program pointed to the importance of having a multifaceted approach to HQIM implementation and highlighted these specific, high-leverage strategies:
- The direct involvement of school administrators in the HQIM implementation work.
- Providing educators with access to high-quality coaching and workshops aligned to the specific HQIM.
- Ensuring that there is sufficient instructional time and student supports for all students to access the content of the HQIM.

This research question investigated and reported on the status of the HQIM implementation accomplished by grantee districts during the funding period. To answer this question, the Evaluation Team drew from findings based on the fidelity of implementation (FOI) matrix. The FOI matrix was developed by EDC for this project and is aligned to the goals and parameters of the DESE grant program. The FOI matrix is based on a thorough review of the research of systems-level curriculum implementation and

highlights a collection of 14 indicators of progress of district implementation, organized into four key components.

FOI Components and Indicators

Component 1. Leadership Readiness and Responsibility (LRR): The alignment of the instructional vision to the HQIM and the role of administrators in supporting and monitoring implementation

Indicators include the following:

- **Instructional vision:** Extent to which district and school leaders have a vision for teaching and learning that is aligned with (1) the HQIM and (2) culturally and linguistically sustaining practices (CLSP) and (3) that instructional vision is integrated with the work of implementation
- **Building and school administrator role – Supervision, systems, and structures:** Extent to which DIGL team members perceive that building administrators understand and can describe their role in supporting implementation of the HQIM, including supervising support (i.e., coaching, instructional time), aligning systems and structures, and ensuring centering CLSP
- **Administrator role – Instructional support:** Extent to which educators perceive district and school administration is supportive of the HQIM-aligned instructional vision and CLSP

Component 2. Professional Development (PD): Includes PL time (frequency and adequacy) and the presence of instructional leaders to guide collaboration

Indicators include the following:

- **Collaborative time – Frequency:** Content area teams meet regularly (ideally at least weekly) to engage in HQIM-aligned PL, including common planning time, meetings with coaches, directors of PD, workshops, or other PL opportunities.
- **Collaborative time – Amount/Adequacy:** Perception of adequacy of the collaborative time for supporting HQIM implementation. Collaborative time could include reviewing and discussing student work, reviewing materials, planning lessons, and learning about curriculum components.
- **Coaches/Instructional expert support:** Coaches, administrators, or other leaders with expertise in the curriculum support instruction and lead collaboration time. Coaching includes focus on evidence-based practices and CLSP.

Component 3. Systems and Structures (SS): Includes access to materials and the structures available to support PL and classroom implementation

Indicators include the following:

- **Availability of curriculum materials:** Extent to which school leaders and teachers have the necessary curriculum materials needed for high-quality implementation
- **Use of curriculum materials:** Extent to which the specific HQIM materials are used by educators in ways that align with the HQIM expectations (e.g., creating or embedding supplementary materials)
- **Implementation team meetings – frequency and effectiveness:** Frequency and sufficiency of DIGL team meetings so that they can ensure support for high-quality implementation and monitoring
- **Student support services:** Availability of services (including staff) to provide differentiated support (including small group instruction) for students identified in need of support, including support for multilingual learners, students with 504s or Individualized Education Programs (IEPs), students currently below grade level, and support available for students
- **Instructional time:** The average number of minutes per week available to teach the HQIM and the extent to which this time meets the requirements of the HQIM (instructional time is aligned with HQIM requirements)
- **Continuous improvement processes:** Frequency with which the DIGL team reviews and discusses data on implementation, access, and teacher buy-in to inform ongoing and equitable support/assessment

Component 4: Communication and Stakeholder Engagement (CSE): Two-way communication between administrators and educators and the inclusion of diverse voices—including family and community members—in the implementation process.

Indicators include the following:

- **Two-way communication:** Administration receives feedback from teachers and other stakeholder groups and incorporates feedback into action plans, AND educators receive communication from administrators about administrators' role in supporting HQIM.
- **Stakeholder engagement:** Extent to which diverse voices—including educators, community members, and family members—are involved in HQIM implementation through the following: Participation in implementation committees, communication

from administrators or teachers, AND stakeholder membership in committees reflects the demographics of the district.

The compilation of FOI matrix data provided insight into the state of HQIM implementation across grantee sites. In particular, the FOI ratings described the extent to which districts (through the perspectives of teachers, school administrators, and district administrators) and external ICs involved in the adoption of the HQIM provided evidence consistent with indicators of high-quality implementation and in ways that allowed all students to have access to fair, equitable, and rigorous learning opportunities through the selected curriculum.

In this section, the Evaluation Team reports on trends in the FOI ratings based on a review of the entire set of ratings and a review of the ratings of districts broken into categories based on district characteristics. The findings based on the FOI ratings for this research question are descriptive, meaning that they provide a rich depiction of the complex nature of implementation during a period of time (late spring 2024), but they do not reveal much about the "why." To incorporate an understanding of the "why," the following section identifies themes that arose from qualitative analyses to complement the descriptive analyses of the FOI ratings.

Findings

FOI ratings varied by component

FOI ratings were generated for each component for each district. For the comparisons across components presented in this section, the Evaluation Team used *normalized average scores* based on the percentage achieved of the highest rating for the component, which varied, dependent on the number of indicators in the component. Across the initiative, these themes were present when comparing component normalized averages (see Table 8):

- **Component 1. Leadership Readiness and Responsibility:** The Evaluation Team observed the highest overall FOI ratings, and the lowest standard deviation, in this component. These results suggest that districts, in general, had the greatest success in implementation in the indicators within this component.
- **Component 2. Professional Development:** The results for this component indicate the greatest variation among districts, as it had a greater standard deviation and range than Components 1 and 3.
- **Component 3. Systems and Structures:** The highest and lowest values, as well as the mean rating across districts, were similar in this component to Component 2,

however, with a lower standard deviation, likely because this component included more indicators.

- **Component 4. Communication and Stakeholder Engagement:** The mean normalized FOI rating for this component was the lowest among the four components, and this component also yielded the greatest standard deviation, likely because this component included fewer indicators. A closer review found that districts, overall, performed lowest in this component relative to the others, although there were some outlier districts that received high ratings (e.g., Amherst Public Schools, Salem Academy Charter School).

Table 8. Normalized averages, ranges, and standard deviations varied among the four components.

	N	Minimum	Maximum	Mean	Std. Deviation
Component 1. Leadership Readiness and Responsibility (LRR)	52	33.33	100	74.15	14.04
Component 2. Professional Development (PD)	52	0	88.89	56.20	19.61
Component 3. Systems and Structures (SS)	52	0	83.33	58.23	14.82
Component 4. Communication and Stakeholder Engagement (CSE)	52	0	100	38.46	20.75
Overall Normalized Score	52	20.51	89.74	60.85	13.04

Comparisons Based on District Characteristics

The Evaluation Team conducted a series of descriptive analyses to compare the FOI matrix results based on a set of district characteristics[1] (see Table 9 for a list of the characteristics

[1] The data used for the district characteristics came from three sources: DESE District Profiles, locale designations by the National Center for Education Statistics (NCES), and district grant applications. The categories used for comparisons within each characteristic came from pre-determined categories from the source (such as NCES locale assignments) or were developed by the Evaluation Team to reflect the relative distributions among the grantee sites.

and the number of grantee districts in each category) to examine the role of different contexts (such as locale and student populations) and different aspects of implementation (such as content area and by implementation consultant). This section summarizes what variation was noted in these comparisons and, in particular, highlights that contextual factors commonly associated with inequitable student achievement outcomes- such as urban and rural settings- were also found to be associated with lower FOI ratings.

Table 9. District counts by category

Topic Count	Category			
Locale	City	Suburban	Rural	Town
Count	*3*	*38*	*7*	*2*
%Black or African American, Hispanic or Latino	Less than 15%	15%–25%	25%–50%	Greater than 50%
Count	*21*	*13*	*9*	*9*
% English language learner (ELL)	0–<5%	5–10%	10–15%	>15%
Count	*26*	*12*	*5*	*9*
% High needs	0–<35%	35–50%	>50%	
Count	*9*	*15*	*27*	
District size	<1,500	1,500–3,000	3,000–5,500	>5,500
Count	*15*	*15*	*11*	*11*
Content area	Math	ELA		
Count	*33*	*19*		
Year of HQIM implementation	1(23/24)	2(22/23)	3+(21/22 or earlier)	
Count	*1*	*39*	*12*	

Comparisons based on district characteristics were conducted as cross-tabulations using the normalized score, making comparisons across FOI components easier to understand. Following is a summary of themes that emerged through these cross-tabulations.

Locale: The large majority of districts in the sample were those categorized as suburban, meaning that comparisons by locale should be viewed with caution. Among the locale categories, city grantee districts had the lowest normalized rating averages in each component (see Table 10).

Table 10. Normalized FOI scores by locale

Locale	Component				Overall
	LRR	PD	SS	CSE	
City	63.0	40.7	48.1	22.2	49.6
Rural	71.4	50.8	57.1	33.3	58.2
Suburb	74.6	59.4	58.2	39.9	61.7
Town	77.8	50.0	72.2	41.7	65.4

Student demographics – Percentage of students who were Black or African American and Hispanic or Latino: A review of the trends in the FOI ratings in this category found that although there was only a small were Black or African American and Hispanic or Latino and FOI overall normalized ratings (-0.16 Pearson's coefficient), the group of districts with a majority of Black or African American and Hispanic or Latino had the lowest FOI normalized ratings overall and for three of the four components (with Component 4. Communication and Stakeholder Engagement being the exception). This trend indicates that HQIM implementation, like other systems-level change initiatives in education, is still likely affected by historic disadvantages that may warrant differentiated supports depending on student demographics (see Table 11).

Table 11. Normalized FOI scores based on the district-level percentage of Black or African American and Hispanic or Latino students

% of Black or African American & Hispanic or Latino Students	Component				Overall
	LRR	PD	SS	CSE	
T<15%	75.7	55.6	61.6	35.7	61.8
15%–25%	72.6	60.7	55.9	37.8	60.9
25%–50%	79.4	58.7	64.3	45.2	65.6

>50%	69.1	48.1	49.4	40.7	55.0

Student demographics – Percentage of "high-needs" students: Overall, there tended to be an inverse pattern where the districts with the largest percentage of high-needs populations had the lowest FOI scores. However, these differences were relatively small, and the rank order among the groups changed for each component. Notably, the districts with the largest high-needs populations had the highest ratings in Component 4, suggesting that these districts may have focused more on this component during implementation or had stronger pre-existing capacity, perhaps through prior focus on building relationships with the community (see Table 12).

Table 12. Normalized FOI scores based on the district-level percentage of high-needs students

% of High-Needs Students	Component				Overall
	LRR	PD	SS	CSE	
0–<35%	75.3	55.5	63.0	37.0	62.7
35–50%	76.4	58.3	58.7	33.3	61.9
>50%	71.8	55.6	56.0	41.0	59.4

Student demographics – Percentage of students who were English learners: The trend in normalized FOI ratings for districts categorized by percentage of students who were English learners (ELs) followed a notable pattern. Districts with 10%–15% of their student population designated as ELs had the highest FOI ratings in all components. The Evaluation Team theorizes that this pattern reflected that the districts with 10% or more EL students had integrated additional differentiation supports into classroom instruction. Therefore, these districts already had systems and staff in place to ensure that ELs had equitable access to the curriculum. However, in districts where the EL population rose above 15%, the Evaluation Team saw decreased normalized average FOI scores in each component, which may have been an indication that the number of students outpaced the available supports in these districts and was greater than the district could effectively accommodate without supports that required larger investments (such as co-teachers, paraprofessionals) (see Table 13).

Table 13. Normalized FOI scores based on the district-level percentage of EL students

% of EL Students	Component				Overall
	LRR	PD	SS	CSE	

0–<5%	76.9	58.1	60.5	37.8	63.1
5%–10%	66.7	54.6	53.7	33.3	55.6
10–15%	80.0	57.8	62.2	56.7	66.2
>15%	70.8	52.8	54.2	33.3	57.4

Implementation consultant (IC): There was variation in the normalized FOI ratings by component among ICs, but caution is warranted in using these ratings as an assessment of consultant performance due to the lack of control in district assignment and other factors. Nevertheless, these results may reflect the extent that ICs attended to the four components in their work with districts. In particular, the Evaluation Team found the variation in the normalized scores in districts in Component 4 was much greater than in the other components, which may reflect the extent to which IC groups focused on this area in their roles with district leadership (see Table 14). Note: The names of the IC organizations have been de-identified.

Table 14. Normalized FOI scores based on IC

Implementation Consultant	Component				Overall
	LRR	PD	SS	CSE	
IC 1	80.6	69.4	62.5	45.8	68.6
IC 2	75.9	42.6	52.8	55.6	58.5
IC 3	84.1	69.8	60.3	38.1	67.8
IC 4	69.4	61.1	51.4	45.8	59.6
IC 5	87.0	46.3	69.4	44.4	66.7
IC 6	72.2	61.1	66.7	41.7	62.8
IC 7	64.4	51.9	56.3	22.2	54.4
IC 8	71.1	60.0	56.7	50.0	61.0
IC 9	74.1	59.3	51.9	33.3	59.8

Content area: Comparisons by content area yielded another notable pattern in FOI rating scores. The normalized averages in Components 1, 2, and 4 were similar for both content areas. A difference, however, was found in Component 3. When reviewing the averages for the individual ratings within the component, the Evaluation Team found this difference was

present in all three indicators, with the greatest difference in reports on "collaborative team-frequency," and "instructional expert support." These trends suggest that, in general, districts in the initiative were more successful in providing these structures for ELA instruction than for math (see Table 15).

Table 15. Normalized FOI scores based on content area

Content Area	Component				Overall
	LRR	PD	SS	CSE	
Math	72.7	52.5	57.0	37.4	59.8
ELA	76.6	62.6	58.9	40.4	62.8

Years of implementation: A review of trends based on the number of years of HQIM implementation did not reveal major differences between districts in the second year of implementation and those in the third or fourth year (which were combined in the Evaluation Team's analyses due to the low numbers in these groups). Only one single district was reported as in its first year of implementation, and this district received lower FOI ratings than the average normalized scores for the other groups. However, because this group only had a single district in it, caution is warranted before generalizing this finding (see Table 16).

Table 16. FOI scores based on years of implementation

Years of Implementation	Component				Overall
	LRR	PD	SS	CSE	
1	55.6	44.4	44.4	16.7	46.2
2	74.6	56.4	57.7	40.6	61.0
3–4	74.1	56.5	61.1	33.3	61.0

Relationships among the Components

The Evaluation Team conducted simple linear regression analyses to explore the relationships among the four components. The regression model assessed the extent that each component was predictive of the overall normalized score, using the four component normalized scores as the independent variable. The results indicated a highly correlated model (see Table 17), which was not surprising, as the team expected that districts that had high ratings in implementing one component during the grant period would be more

likely to report high ratings in implementing the others. Still, these results offer some insight into understanding the relative influence of components, which is valuable based on the belief that successful implementation requires that districts seek coordinated actions across components. Therefore, measuring these relationships provides a sense of which components carry weight with others and may, therefore, be worthy of greater attention by leaders.

Table 17. FOI component ratings are highly correlated

	LRR	PD	SS	CSE	Overall FOI Rating
	B				
Component 1. Leadership Readiness and Responsibility (LRR)	1	.378**	.559**	.576**	.798**
Component 2. Professional Development (PD)	.378**	1	.477**	0.268	.745**
Component 3. Systems and Structures (SS)	.559**	.477**	1	.356**	.816**
Component 4. Communication and Stakeholder Engagement (CSE)	.576**	0.268	.356**	1	.627**
Overall model	.798**	.745**	.816**	.627**	1

**Correlation is significant at the 0.01 level (2-tailed).

In the regression analyses, all components were significant, and the results for Component 1. Leadership Readiness and Component 3. Systems and Structures were found to have the greatest effects on the overall FOI ratings, with unstandardized coefficients of 0.300 and 0.358 respectively. These scores can be interpreted as underscoring the importance of attention to these components during the implementation of FOI. (See Table 18.)

Table 18. Regression analyses by FOI component

Model	Unstandardized Coefficients	t	Significance

	B		
(Constant)	-0.169	-0.116	0.908
Component 1. Leadership Readiness and Responsibility (LRR)	0.300	12.002	<.001
Component 2. Professional Development (PD)	0.258	17.342	<.001
Component 3. Systems and Structures (SS)	0.333	15.18	<.001
Component 4. Communication and Stakeholder Engagement (CSE)	0.126	8.463	<.001

Mid-Term Research Question 1b

What are the perspectives of teachers and DIGL team members on how systems and structures support progress toward meeting their goals?

Interviews and open-ended survey responses provided data on the perspectives of teachers, school and district leaders, and ICs involved in HQIM implementation efforts. Analyses of these data sources produced findings that highlighted which components contributed to progress during the grant period, and how.

Qualitative data analysis supported the hypothesis that implementation is affected by factors across the collection of components, thereby indicating that, to be successful, implementation needs to address multiple aspects of the system, as described in this open-ended response from a district administrator:

> *The strong, positive implementation of* [HQIM] *in our district was made possible by a variety of factors:*
>
> - *Pilot process took a full year with two different curricula, an outside 3rd party consultant, and over 20 teachers.*
> - *Strategic roll out occurred (approx. 50% of teachers implemented the first year) in order to create strong teams at each school.*
> - *We have and continue to have Literacy Leaders, reps from each school, that meet monthly to work on unpacking the curriculum, problem solving, and communicating with other teachers.*

- *PD with [HQIM] facilitators; PD with Literacy Leaders; grade level, district wide PD 2–3 times a year with coaches; teachers observing teachers across schools.*
- [HQIM] *(and our teachers) have unwavering support from our administrators and School Committee.*

[HQIM] *is a robust program that encompasses the four language domains—speaking, listening, reading, and writing. It is dense and tough to implement… in the best way possible. It has pushed students (and teachers!) to think critically about how to learn and teach. Transformative.*

The open-ended survey responses from teachers and administrators also revealed positive accounts in each component of how progress in each component was viewed as contributing to the effectiveness of implementation. In addition, data analyses revealed that staff members believed that even when the installation of supports was targeted and did not address all four FOI components, implementation of the HQIM was still effective and positive.

One district administrator said:

> *Our implementation has really improved over the last year as we are in our second year with K–2 and first year with 3–5. Though we are still lacking common planning time (which I'm hoping will be negotiated into our next contract), the directors and coaches are working with building leaders on how to support teachers.*

Several of these reflections indicated that leaders found implementation benefited from a purposeful process that included the ongoing review of data and piloting and then broadening efforts more in subsequent years.

> *Reviewing the data from the surveys, focus group information and the Learning Walks has been critical in determining our next steps to implement the curriculum effectively.* —District Administrator

> *We incorporated a slow rollout process consisting of a few grade levels a year implementing [HQIM]. This year is our first full year of [HQIM] district-wide, and the whole process has been successful.* —Instructional coach

Interviews and qualitative data from the DIGL and teacher surveys also provided insights into specific actions and areas of focus within the four components that were viewed as critically important for creating systems of support during the grant period and that may point to these areas as key levers in implementation.

Component 1. Leadership Readiness and Responsibility: Administrator Involvement

The extent that leaders were involved in HQIM implementation was reported as a major factor in establishing expectations for teachers in the adoption of the new curriculum and contributing to the quality of implementation. Leadership involvement was also representative of whether or not the leaders themselves were knowledgeable of the HQIM and, therefore, well-prepared to understand and provide feedback to teachers.

> *The more our principals and assistant principals are able to understand how the curriculum is meant to be implemented, the more they can support teachers in that implementation.* —District-Level Administrator

> *Our assistant superintendent has been supportive throughout the year. And we had a fabulous coach and another out of district math coach. I am very pleased with the support from them all year.* —Lead Teacher

Insufficient involvement from leadership was cited as a factor that slowed or reduced the quality of implementation. In these examples, the lack of leader involvement did not necessarily mean that leaders did not have opportunities to develop their understanding.

> *The district offered very clear support to its administrators to learn about* [HQIM], *learn how* [HQIM] *should look, and norm their observations for* [HQIM]. *However, only one principal committed to fully participating in the work. Other principals consistently skipped or disengaged from the workshops being offered.* —Instructional Coach

> *What was revealed was a need to build site leadership knowledge and capacity to support and build for strong instructional practice.* —District Curriculum Director

ICs reflected on the risks of insufficient coordination among leadership to provide clear guidance and support to teachers. When the onus of decision-making falls on teachers without adequate leadership support there is a risk of inequitable student experiences, nonuniform access to grade-level content, and lack of support to make data-driven decisions to support differentiated learning. One IC shared:

> *"Often you get the curriculum folks who are like the literacy coaches or the instructional coaches that report up to the curriculum director, and they're all about district-wide curriculum and academic concerns. And then you have the building administrators who may or may not be plugged in and aligned to those priorities, and teachers are caught in the middle where they might, if*

that alignment is very tight, they might feel pressure to do one thing from their principal or their official evaluator or whoever it is and have their coach on the side saying that something else is actually the best thing for students. And so just making sure that not only district central office and teachers are aligned, but building principals who obviously have a million other competing priorities and are usually trying their best, but just drowning in all kinds of stuff really are aligned so that teachers don't feel pulled in different directions or confused about what they're supposed to be doing."

Component 2: Professional Development: Coaching

In interviews and open-ended responses on surveys, a common theme emerged around the importance of installing a strong coaching model and providing educators with consistent access as part of HQIM implementation.

ICs noted that although it is helpful for teachers to understand the materials and how they are designed to be used, it is even more important for teachers to have ongoing coaching and training in order to make the necessary pedagogical shifts to implement the materials effectively.

One consultant shared:

> *I think probably the most effective thing that I've seen is just direct to teacher coaching. So, I think when we have people who can observe instruction or pre-plan with teachers, go in, observe and then debrief, those are the kinds of things that got teachers better faster. I think teachers were also very responsive of course, to our traditional PL, our bootcamps, our supportive planning things. They definitely learned ways to approach internalizing the lesson, which I think then did translate into stronger instruction. But I think from my perspective, the most impactful work we did was when we were directly coaching people.*

Participant comments indicated that coaching, although beneficial, was not always mandatory or accessible to all teachers.

> *Coaching is not required in our district, and there isn't always clear structures for teachers to access coaching without giving up preps, or working outside of school hours. And in year 2, the district did not offer district level PD to teachers, and expected them to access coaching for their continued implementation support. I think there was a missed opportunity year 2 of implementation to leverage coaching.* —Instructional Coach

> *We had a fabulous coach with [name] and another out of district math coach. I am very pleased with the support from them all year. I think mandatory coaching for next year would positively affect the implementation of* [HQIM]. *Right now, coaching is optional*. —Lead Teacher

Component 3. Systems and Structures: Instructional Time and Equitable Access

Qualitative analysis of open-ended responses to the DIGL and teacher surveys identified that progress in implementation of the HQIM was connected to the availability of sufficient time for HQIM instruction, supports, and strategies to make the HQIM accessible to all learners. These two factors were commonly cited as obstacles that limited implementation, with some examples of how these were addressed through the efforts of leaders and educators with support from ICs.

In particular, participants cited the need for more attention to supporting access for high-needs learners and that additional systems and structures in this area will advance implementation:

> *It is our hope that* [HQIM] *continues grow when providing strategies for supporting students on IEPs and our MLL students (language objectives aligned to the specific learning goal of each lesson, sentence stems, questioning that will increase discourse orally and in written form)*. — Curriculum Chair

> *While I think the process of implementation is getting smoother across the grade levels, there is still work to be done in order to fill the gap for students that currently struggle with accessing the curriculum*. —Lead Teacher

Instructional time was noted as a concern by many of the IC groups, although they did not observe it as a concern in all of their districts. For districts where ICs said it was not a concern, the ICs shared that these districts were past their first year of implementation and had installed strategies to address (possibly earlier) time issues, such as pacing guides, and that teachers' knowledge of the HQIM had increased.

ICs noted several factors that created challenges for adequate instructional time. Several ICs described structural components where the amount of time required to teach the lessons simply did not match the amount of time made available. ICs also identified that weak infrastructure or the absence of important supports was a factor, such as the need for additional PL, competing instructional demands, and the lack of strong coaches. ICs often cited multiple conditions as contributing to the lack of sufficient instructional time,

stating that the challenge arises and is exacerbated by a set of interacting obstacles, and it doesn't have a single root cause. While many ICs noted structural issues that contributed to this challenge, multiple ICs also framed it as a *mindset* issue, noting that teachers did not believe or have the expectation that they could teach the lesson in the time provided and/or that students would not be able to keep up with the content.

These reflections from participating teachers point to potential strategic areas for leaders to focus upon during implementation. Notably, there were few open-ended responses related to Component 4: Communication and Stakeholder Engagement, which was consistent with the broader finding that this was the aspect of implementation that received the least consideration during the initiative.

Closing Remarks

- The trends in FOI ratings across the grantee districts may provide a lens on the relative focus placed on each of the four components during the initiative period. Districts and the support from implementation consultants espoused a focus on leadership (as captured in Component 1) in order to establish the foundation for implementation, and this is where the highest average ratings were found. Conversely, districts' and implementation consultants' attention to Component 4 (Communications and Stakeholder Engagement) was less developed than in other areas, and FOI ratings tended to be much lower in this area.
- There was a clear ordering in the average FOI district ratings among the four components, with Leadership Readiness and Responsibility (LRR) recording the highest ratings and Communication and Stakeholder Engagement the lowest, and the other components (Professional Development and Systems and Structures) in the middle. This trend likely reflects the combined influence of a set of three factors: (1) districts' starting points in HQIM implementation (e.g., that districts tend to start from a stronger place in LRR than in the other components); (2) the grant initiative strategic focus on leadership during the initial stages of implementation lead to greater advancement in this component, and (3) the relative challenges within each component, such as what it takes to make positive change (i.e., that it is more difficult to "move the needle" in districts for CSE than in the other components).
- Urban districts and districts with higher proportions of Black students tended to fare lower on FOI components that others. This finding underscores that districts with large percentages of students from populations that have been traditionally marginalized may warrant additional supports and considerations for the effective implementation of HQIM at the systems-level.

- Districts implementing ELA HQIM received much higher FOI ratings in Component 2: Professional Development than districts implementing Math HQIM. This finding may reflect traditional differences in the norms for teacher collaboration in the two content areas, and the importance of ensuring the math teachers involved in HQIM implementation have adequate opportunities to meet with others in their subject-area.

Mid-Term Research Question 2.

What are tangible ways in which teachers and districts are centering culturally and linguistically sustaining practices (CLSP) in their implementation of HQIM?

Key Findings

- There is a lack of consistent focus on CLSP as part of HQIM implementation. A majority of teachers were not offered CLSP related PD during implementation. Further, there was lower teacher satisfaction around CLSP focused PD when compared to other aspects of implementation.
- A sizable portion of teachers were not interested in CLSP related PD- this could be for a variety of reasons (such as lack of confidence in the quality of CLSP-focused PD), but also illustrates that this is not only an issue of district attention.
- The most frequently observed practices in classroom instruction that aligned to DESE's key areas of CLSP were high expectations and support, and partnership with students.
- There were no occurrences observed for practices supporting sociopolitical awareness. Additionally, the practices observed for cultural competence and community building were at the nascent stages and were not fully realized.

Data sources used to address this question were (1) teacher survey items around CLSP from the second administration cycle, (2) open-ended responses focused on CLSP in the second administration of the teacher survey, (3) teacher interviews, (4) classroom observation data, and (5) interviews conducted with the ICs.

The findings are ordered as follows:

1. A broad overview of teacher perspectives around CLSP in their implementation of the HQIM, which drew from the teacher survey data from the second administration cycle
2. The findings from the interviews with ICs that shed light on the district efforts in centering CLSP
3. The findings in the form of vignettes from teacher interviews and classroom observations (n =18)

Given that CLSP was not found to be a common feature of HQIM PL efforts, the evaluation paid special attention to capturing and explicating what CLSP looked like in the classroom. Vignettes showcased where teachers were with respect to using CLSP in their instruction.

A purposeful sample of 18 teachers was selected for classroom observation, with the sampling criteria being teachers indicating high satisfaction with HQIM implementation in the Time 1 survey and located in districts that served a large population of Hispanic or Latino and/or Black or African American students (see *Technical Report* for details on site selection).

Teacher Perspectives Captured Through Survey

There were **eight items on the teacher survey** that explicitly asked teachers about the CLSP support offered to them during the school year. When asked about the extent to which the administration had advocated for or supported CLSP, the results indicated that districts were largely advocating for CLSP, with 48% of respondents agreeing or strongly agreeing, 28% of respondents somewhat agreeing, and 24% of respondents disagreeing or strongly disagreeing with the statement. When asked if the PL experiences offered helped teachers develop culturally relevant instructional activities, 30% agreed or strongly agreed and 33% somewhat agreed with the statement. This level of agreement was lower than the levels of agreement to statements about other aspects of HQIM implementation (see MRQ3 findings for more detail). These responses indicated that districts were advocating for CLSP and teachers were receiving some PL that helped them develop instructional activities that used CLSP. However, the support received from districts was lower when compared to other areas of HQIM implementation.

When asked if teachers had received PL related to culturally and linguistically responsive teaching methods prior to the implementation of the curriculum, only 49.8% of respondents indicated that they did. This indicated a large gap in PL around CLSP, with half of the teacher population not receiving any PL opportunity focused on CLSP before using their HQIM. Similarly, only 39.8% of respondents received training on culturally and linguistically responsive teaching methods as part of the PL related to the implementation of the HQIM. Lastly, when asked about how often in the school year coaches focused on CLSP, only 24% of teachers reported often or always, 29% of teachers reported sometimes, and 46% of teachers reported never or rarely.

These responses indicated that only some PL supports and coaching provided for HQIM implementation supported teachers with using CLSP in their instruction. Moreover, teachers who were learning about CLSP may have received PL through other school or district initiatives that may not have been tied to HQIM.

Teachers did indicate an interest in PL around CLSP, with 39.5% of respondents reporting that they had not received specific training but would be interested in participating in future PL on culturally and linguistically responsive teaching methods. Conversely, 24.3% of

respondents indicated that they had not received any specific training and felt that culturally and linguistically responsive teaching was not an area they needed to work on. These reports reflected mixed teacher buy-in to learn more about CLSP and to use it in their instruction. The findings suggested that there were teachers who didn't see a need for PL in this area, regardless of whether it was offered, and likely wouldn't be exposed to CLSP methods unless required.

A review of **teacher survey open-ended responses** (n = 937) from the second administration of the survey was conducted across five identified areas of interest from DESE's resource that fell under the umbrella of CLSP (see Table 19). In this resource, CLSP included five key areas: (1) asset-based teaching, (2) high expectations and support, (3) cultural competence and community building, (4) sociopolitical awareness, and (5) partnership with students and families.

Table 19. DESE resource on culturally and linguistically sustaining practices

DESE Culturally Responsive and Linguistically Sustaining Practices: 5 Core Areas	
Asset-Based Teaching	Leveraging students' funds of knowledge (based on their cultural lived experiences and linguistic resources) as assets to support learning
High Expectations and Support	Supporting all students to develop positive identities, as learners, attain the academic skills and knowledge to meet or exceed grade-level standards, and apply competencies in relevant, real-world contexts
Cultural Competence and Community Building	Creating a learning environment that is affirming of diversity and where each student feels a sense of belonging while developing respect and understanding for cultures and identities that are different from their own
Sociopolitical Awareness	Empowering students with the ability to identify, analyze, and work to solve real-world problems by thinking critically, drawing conclusions about, and developing agency around complex issues, including those related to equity, identity, power, or bias
Partnerships With Students and Families	Incorporating student/family voice; creating opportunities for meaningful engagement with the classroom community and learning process

After reviewing potential codes that mapped to the five CLSP areas, a more focused review of "high expectations and support" and "partnerships with students and families" yielded the high-level summaries outlined below.

High Expectations and Support

Teacher satisfaction with HQIM: Teachers reported mixed results with HQIM meeting the needs of their students and providing instructional supports, particularly for EL students. Some teachers "embedded" universal design language supports, which had a positive

impact on meeting student needs. While some teachers reported that lessons were helpful for EL students, others reported that the curriculum was difficult for EL learners and was not accessible to them. Teachers reported needing to slow the pace of the curriculum down and found it difficult to implement with fidelity due to the adjustments to pacing to meet the needs of their multilingual students. Several teachers reported needing to adapt lessons and use supplemental materials for their students who were currently below grade level in math and/or ELA.

Grade-level appropriateness for K–5: Several teachers reported their HQIM curriculum was not appropriate for the grade level they were teaching, and they were not satisfied with the design of lessons. For example, they reported that the curriculum design was not appropriate for specific grade levels. Among those specifically mentioned were kindergarten, where time blocks recommended by the curriculum were too long. Additionally, teachers reported that some of the topics embedded within the curriculum were not appropriate for their upper elementary students, such as "suicide" or "stillborn babies." Others did not believe students should learn about social issues, such as the events of the Civil Rights movement with "pictures of fireman hosing down Black Americans" or how "buffalos were driven off cliffs to drive the Native Americans away." However, not all teachers reported concerns with appropriateness: one teacher reported that the curriculum was more "hands on" and felt the curriculum was "appropriate" for their kindergarten class.

Gaps in prerequisite knowledge and skills: Teachers stated that the curriculum assumed students entered with a level of competency to engage with instructional activities and content, which was not the reality for many students. Teachers reported that students in classes with HQIM were engaging with grade-level curriculum, yet they were not at grade level. Students needed scaffolding, and although the teacher attempted to have them "figure out" how to solve problems, students' needed much more guidance and support.

Meeting students' needs: Some teachers reported increasing rigor over time and moving from teacher-led instruction to more student-led instruction, which allowed students to engage in productive struggle. However, teachers also reported that materials were too difficult for EL students and students with IEPs. Teachers reported that students are not able to access curriculum as reading levels were too high even when using the differentiated materials provided by the HQIM. This gap led to teachers seeking ways to meet students' needs who were not at grade level. Teachers reported that students were not reading at grade level, and lessons often took longer to complete. There was a need to supplement materials and incorporate more opportunities for practice to help close students' learning gaps.

Alignment to Massachusetts Standards: Teachers modified lessons for closer alignment to grade-level Massachusetts standards. Many teachers reported having also worked on the scope and sequence of the modules to determine which lessons needed to be omitted or modified to more closely match the Massachusetts standards.

Adaptation and differentiation to meet student needs: Teachers reported integrating more foundational skills lessons and utilizing small groups to provide additional support. They reported that in addition to adapting and differentiating, much of this work was being done on their own. The primary reason cited for adaptations and differentiation was making changes to the pacing of the curriculum to better meet their students' needs.

Partnerships with Students and Families

Students comfortable using curriculum over time: Teachers reported that students grew in their knowledge and skills over time. Students loved videos and media as well as "hands on" activities within their HQIM curriculum. Students felt more confident and comfortable over time as the routines, systems, and classroom structures became more familiar to them. They understood how to work together to problem solve. Students who were using the curriculum across multiple years were building a greater base of background knowledge. This multi-year exposure was also accompanied by alignment across grade levels.

Student response to curriculum was mixed: By and large, teachers reported positive student responses to the curriculum. While some reported that students were engaged, growing in knowledge and skills and engaging in productive struggle, others reported lack of engagement and the need for more opportunities for practice. Teachers reported that as students became more familiar with the routines and expectations, they were better able to use their strategies and apply their learnings. However, many teachers reported that students were not motivated or that they lost interest because of a lack of relevance to students' lives. This in turn made teachers include supplemental materials. Teachers wanted the curriculum to be authentic and relevant to student's lives.

Implementation Consultant's Perspectives on District Efforts around CLSP

Interviews conducted with nine IC organizations around districts efforts to center CLSP were consistent with what the Evaluation Team saw through other data sources. The interviews highlighted that districts were more comfortable and felt better equipped to address the needs of Els, but they were largely not addressing CLSP. The reasons provided by the ICs ranged from a level of discomfort in identifying and naming inequitable

processes, a lack of a shared understanding of what constituted CLSP, and a lack of training for inclusion teachers and special educators during HQIM implementation training.

When ICs were asked about what they felt that districts should do in the future to center CLSP, they shared that there needed to be a stronger focus on translating CLSP into everyday instructional practices, which could take several forms:

- Have diversity, equity, and inclusion (DEI) consultants work with districts and schools
- Conduct model lessons that focused on CLSP practices in the classroom and how to use materials with diverse students
- Provide more collaborative planning time for teachers focused on addressing CLSP
- Use student data to provide feedback to teachers and to ensure that there is participation in learning from all students

Additionally, districts needed to create better mechanisms for vetting and recommending an approved list of supplemental materials that could be used to increase diversity of representation within the HQIM while also ensuring that students were meeting grade-level expectations with supplemental materials.

Presence of CLSP in Instruction

The teacher interviews conducted with the sample of observed teachers shed light on the lack of support offered to teachers in developing their expertise around using CLSP in instruction. The Evaluation Team conducted **18 teacher interviews**. Teachers spread across nine districts were interviewed by two members of the Evaluation Team following the classroom observations. During teacher interviews, 14 teachers reported receiving some type of PD around culturally responsive teaching methods, but the frequency varied considerably, as follows: one time since the HQIM was introduced (reported by six teachers), annually (reported by two teachers each), bi-monthly (reported by one teacher), monthly (reported by one teacher), or six modules over the school year (reported by one teacher).

Often these PDs were not tied to their specific HQIM curriculum. Two teachers reported that, while they did not receive PD around cultural responsiveness, it was integrated into the curriculum or discussions with their instructional leadership specialist. Two other teachers reported not receiving any PD around cultural responsiveness. These data were in line with what the Evaluation Team saw through the teacher survey responses and the ICs'

reports, which indicated that CLSP was not commonly featured during PL opportunities offered to support HQIM implementation.

To gather evidence on how teachers were centering CLSP in their instruction, **classroom observation data for the presence of CLSP themes** were analyzed. Table 20 below summarizes the distribution of CLSP occurrences across the five key areas that were observed during classroom observations. The most frequently observed practices were high expectations and support (n = 18) and partnership with students (n = 14). There were no occurrences observed for practices supporting sociopolitical awareness, and the practices observed for cultural competence and community building were at the nascent stages and were not fully realized. These non-occurrences could be potentially due to a lack of focus on CLSP in PL opportunities tied to HQIM implementation. See the *Technical Report* for additional examples for the practices that were observed in the classroom.

Table 20. CLSP practices observed in classrooms

Teacher Pseudonym	Subject	Grade Level	Years of Teaching	Years of Experience in Curriculum	Asset-Based Teaching (6)	High Expectations and Support (18)	Cultural Competence and Community Building (3)	Sociopolitical Awareness (0)	Partnerships with Students and Families (14)
May	Math	1	20	3		X			X
Kamila	Math	1	14	1		X			X
Kathy	Math	3	unknown	5		X	X		X
Veena	Math	3	5	1		X			X
Shae	Math	5	30	2	X	X			X
Tim	Math	5	unknown	5	X	X			X
Sylvie	Math	6	5	5	X	X			X
Marsha	Math	7	2	2	X	X			
Martin	Math	7	3	.5		X			X
Ruth	Math	9	3	3		X			X
Sam	Math	9	4	1		X			X
Eva	Math	11	10	2	X	X			
Carla	ELA	2	9	2	X	X			X
Erin	ELA	2	15	2		X	X		X
Amita	ELA	3	14	2		X			X
Irene	ELA	3	3	2		X			
Jenna	ELA	5	23	3		X	X		X
Sydney	ELA	6	28	1		X			

The following section provides examples for four key areas to help the reader better understand what these practices looked like in the classroom.

Asset-based teaching is defined as *leveraging students' funds of knowledge (based on their cultures, lived experiences, and linguistic resources) as assets to support learning*.

The most salient use of leveraging students' funds of knowledge was through their lived experiences. When unpacking students' lived experiences, the Evaluation Team considered prior learning, connections to students' lives in school, and connections to out-of-school contexts.

The Evaluation Team did not observe instances of leveraging students' funds of knowledge based on their culture or their linguistic resources. However, the following vignette captures teachers leveraging students' funds of knowledge through their lived experiences.

"Bridge That Gap" – Using Connections to Students Lives to Make Learning Meaningful for Students

In a grade 11 math (algebra) class, Ms. Eva (who has been a teacher for 10 years) used an example from the HQIM curriculum in which students were making sense of a graph depicting COVID-19 cases per day over time. Before Ms. Eva introduced the graph to the class, she made a connection to students lives by placing the graph in context of it having been 4 years that week since the COVID-19 pandemic shutdowns began.

When interpreting the graph, Ms. Eva encouraged students to bring in their lived experiences and share their thinking for why there were dips and peaks in the graph. Students shared that increased travel during the holidays could have contributed to cases rising at a particular time point in the graph and that the increase in vaccinations could have been a factor for seeing a sharp decline in the infection cases per day.

Even though the graph was to learn about the mathematical concepts of exponential and logarithmic growth functions, the context of the graph and the opportunity Ms. Eva created for her students to make sense of the graph helped to connect this learning experience to her students' lives. While this activity was part of the curriculum. Ms. Eva mentioned that she tried her best to make connections for students in algebra as best as she could. Ms. Eva's shared, "Something that we are trying to work on is having kids just relate their personal lives to the math in hopes that they can retain it better, just have a better connection with it."

Ms. Eva mentioned that her students often grappled with questions such as "When am I ever going to see this? When am I ever going to use this? What is the purpose?" Ms. Eva's

solution to helping students with these questions was to make learning math relatable to their lives. As mentioned by Ms. Eva, this was something they were also encouraged to do across math classrooms in their school, resulting in a school culture that sought to make math more meaningful to students lives.

High expectations and support is defined as *supporting all students to develop positive identities as learners, attain the academic skills and knowledge to meet or exceed grade-level standards, and apply competencies in relevant real-world contexts*.

Following are three vignettes that capture what high expectations and support looked like in the classroom.

De-emphasizing "Correct Answers" in Math Discussions

Ms. Ruth (grade 9, math, 3 years of teaching experience) engaged in asking her students probing questions to elicit their thinking. For example, when a student would share an answer, Ms. Ruth would ask the class "what do others think?" in an effort to engage other students in the discussion. Ms. Ruth shared with us that this allowed her to not take the role of the expert who holds all the knowledge, but instead it encouraged students to engage in sensemaking and to collectively build knowledge, which she believed would help them retain the learning.

> *"I think the reason I do it the most is because I don't want to say, yes, that's correct, or no, that's wrong. And so it's a way to be like, you tell me, I want to take the role of I'm not the expert in here. I don't hold all the knowledge. And so getting them to figure it out, I feel like is the light bulb moment. Most of the time, it's something that they will hold onto because they had to talk through it." (Ms. Ruth, Grade 9, Math)*

Ms. Ruth noted that all her discussions were structured in a way where her role was to encourage greater participation from students by asking students whether they agreed or disagreed with a shared response (whether it was a correct or an incorrect response). This in turn encouraged them to share their reasoning behind agreeing or disagreeing with a response.

Multiple Ways of Problem-Solving

Ms. May (grade 1, Math, 20 years of teaching experience) was engaged in learning to use a strategy in which students split two-digit numbers into the 10s, the decibels, and the ones, and then to put those two sums together to solve a two-digit plus two-digit addition

problem. Evaluation Team members observed that Ms. May asked the students to come up with two or more solutions to a given problem. While for that specific word problem, coming up with multiple solutions was a recommendation of the curriculum, Ms. May did this practice at least once weekly with her class. She noted that coming up with multiple solutions allowed her students to be "more flexible in their thinking and not have them hang their hat on one strategy; that they have many strategies that they can go to." In addition to encouraging multiple ways of solving a problem, Ms. May helped her students compare their solutions to the one in the curriculum materials. This allowed students to think critically about their problem-solving approach and evaluate different approaches for efficiency to get an accurate answer.

Supporting the Practice of Argumentation through Embodiment of Learning

Ms. Jenna (grade 5, ELA, 23 years of teaching experience) taught an inclusion class and was in the third year of implementing the curriculum. In Ms. Jenna's class, all students had access to and engaged with the same text, even if they were not at grade level for reading. To ensure that all students could productively participate in sensemaking and knowledge building, Ms. Jenna used what she called a "living paragraph" for the learning goal of writing an argument. The lesson was structured around comparing four different accounts of why people are led to believe that Big Foot is real. The living paragraph was not part of the curriculum; it came from a writing program that Ms. Jenna had used in the past with her inclusion class. Since then, she has incorporated it into her practice and used it frequently when supporting the practice of argumentation.

Prior to starting the living paragraph, the students gathered in small groups to identify evidence from each of the four accounts that were presented. Then Ms. Jenna asked for students to volunteer their answers to the class around possible claims that could be made from the given evidence. She then asked one of the students who shared their claim to stand in the front. The next student who joined the living paragraph supported the claim with evidence, then the next added further evidence and so forth. Some students also served in the role of transition words to connect each of the pieces. Once the argument was complete through the living paragraph, the group of students each read their piece. This ended up being a cohesive paragraph for an argument supported by evidence from the text.

After the students in the class had modeled how to write an argument through the living paragraphs, they were to individually write their own arguments informed by the ideas that were shared in the discussion, using the structure of the living paragraph as a template.

Supporting argumentation through the living paragraph allowed all students to visually see how to write an argument. She noted that this activity especially benefited students who had difficulty with reading or writing at grade level, since they were able to discuss argument writing in a non-text-based way, providing them with an opportunity to fully participate in the learning.

Cultural competence and community building is defined as *creating a learning environment that is affirming of diversity and where each student feels a sense of belonging while developing respect and understanding for cultures and identities that are different from their own*.

When looking for cultural competence and community building, the Evaluation Team identified three examples from the classrooms where teachers were beginning to address this practice. As discussed earlier, the practices that the team observed were in their nascent stages, and they largely felt that the full potential of these practices was not being realized. Following is one vignette from the classroom that was the closest one to the practice for this area. The purpose of this example is to showcase where the teacher was with respect to implementing cultural competence and community building in the classroom.

Drawing Parallels in History

Ms. Erin (grade 2, ELA, 15 years of teaching experience) weaved in opportunities for students to connect to a story by highlighting aspects of the text that students could connect to their lives. Ms. Erin felt that this was particularly important for historical texts to help students be more invested in the historical reading and to see its connection to today's world. Ms. Erin thinks that it "makes them [students] more invested and interested in the topic and really makes those big world events that they think happened so long ago, connect to today's world."

Her curriculum was structured to have student do multiple reads of a story. Ms. Erin tried to make these connections during the first read of the story. In the class, the Evaluation Team observed students were reading a biography about Bessie Coleman, the first African American woman to receive a pilot's license in 1921. Ms. Erin spent time with her students discussing what a pilot's license was by providing examples of a driver's license that students were more familiar with. Additionally, Ms. Erin opened a discussion around how different the airplanes in 1921 looked compared to the airplanes of today, which led to a classroom discussion with multiple students sharing the differences they observed and sharing stories about travelling on airplanes and visiting airplane museums.

Ms. Erin also used the opportunity to discuss Bessie Coleman's experiences with segregation in connection to other African American figures that students had learned about at school but outside their curriculum, such as Martin Luther King, Jr.

Ms. Erin felt that the curriculum she was using did a good job of providing connections to students lives that were tied to more individual experiences than "global experiences." She therefore tried to create more opportunities to "make more of those connections that are not just about [oneself], but of others." Ms. Erin felt that it was important for her students to think about why the experiences of others were "so significant and important."

The Evaluation Team saw Ms. Erin make a connection to Martin Luther King, Jr.'s life that she said they had learned about in class for Martin Luther King, Jr.'s birthday. Ms. Erin also identified for her students the similarities in the stories of Bessie Coleman and Martin Luther King, Jr. by mentioning to the students, "how things weren't fair just because of how you looked."

While the team did not observe students building on this aspect of the story or asking questions around racial injustice, Ms. Erin's class provided a good example of how she seeded an opportunity to discuss racism and segregation by connecting the story of Bessie Coleman to Martin Luther King, Jr. One way Ms. Erin could have furthered this discussion would have been to ask students to reflect on how things were not fair for the two individuals, encouraging students to draw parallels and engage with the text in a deeper way around these important topics.

Partnerships with student and family is defined as *incorporating student/family voice; creating opportunities for meaningful engagement in the classroom community and learning process*.

The Evaluation Team saw multiple instances of teachers incorporating student voice in the classroom to create opportunities for meaningful engagement, knowledge building, and sensemaking during the instruction. Given that the team observed the classrooms and then interviewed teachers based on what they had observed, they did not gather data on family engagement through these sources. However, there was one example of family engagement that the Evaluation Team learned about during a teacher interview.

Ms. May (grade 1, math) used a companion program that came with her curriculum, which was designed for students to do independent work. The program provided personalized recommendations for each student's independent work that were based on the results of diagnostic assessments taken twice a year by the students. Ms. May noted that the recommendation of the curriculum was to have students engage in 45 minutes of

independent work per week. Ms. May also noted that in addition to a 45-minute personalized learning block each week, the school encouraged students to work on the independent practice at home as a way for families to be involved in students' learning.

The Evaluation Team identified partnership with students in classroom observation data by examining the presence of student voice and agency in learning, reciprocal discussions where the role of sensemaking resided with the students, and classroom practices where students served as instructional resources for one another. Following are two vignettes that illustrate the use of student voice and agency in learning, student-centered discussions, and students as instructional resources for one another.

Students as Instructional Resources for One Another

In Ms. Carla's (grade 2, ELA) classroom, the Evaluation Team observed many student-to-student -paired discussions, which were then followed by whole-class discussions. Ms. Carla had students serve as instructional resources for one another by pairing up students to engage in "think-pair-shares." The curriculum recommended multiple think-pair-share activities, which also aligned with Ms. Carla's teaching practice. Ms. Carla used these activities frequently to primarily serve four goals: (1) encourage wider student participation, (2) provide an opportunity for all students to practice in sharing ideas, (3) help students who were nervous about sharing their thinking with the whole class to practice sharing their ideas with a partner before a whole group discussion, and (4) allow students to engage deeply with their peer's ideas and understand how they might have arrived at a response.

Similarly, in Ms. Erin's (grade 2, ELA) classroom, she had students working in pairs in an activity called "turn and learn." The curriculum she was using recommended students work in pairs, and it was also the school's philosophy to encourage students working with each other. To encourage students to "turn and learn" from their peers, Ms. Erin asked students to share their partners thinking with the whole group instead of their own thinking. This encouraged students to engage with their peer's response more deeply and to check for understanding with their peer in preparation for a whole group share-out. Additionally, Ms. Erin noted that this practice promoted accountability for listening and learning from their peers.

Presence of Students' Voice and Agency

An example of student agency in Ms. Ruth's (grade 9, Math) classroom was around assignment of student pairs. The pairing was based on students' feedback about who they

felt comfortable with and the teacher's own observations about who worked well together and who could support each other.

In Ms. Ruth's class "half of them or groups are based on skills, half of them are students who struggled in the past working with pairs and are like, this is someone that I feel comfortable with." Another example of student voice and agency in Ms. Ruth's classroom was the heavy emphasis on discussions, in which the onus of sensemaking and knowledge building was on the students. Students had agency in the classroom to agree or disagree with a response and to drive a discussion.

Closing Remarks

- There is an urgent need to support teachers and administrators in building a common understanding around what constitutes culturally and linguistically sustaining practices and how it aligns with MA DESE's vision of CLSP. Additionally, the supports need to help teachers translate CLSP into their instructional practice for teachers to develop proficiency in pedagogy and instruction centered around CLSP.
- The analysis and vignettes presented from classroom observations highlighted that teachers who felt supported by leadership to implement HQIM were making progress in aligning their instructional practices with two key areas of CLSP: high expectations and support and centering student voices. However, asset-based teaching, cultural competence and community building, and sociopolitical awareness remained under-developed areas in instruction and learning.
- One reason for seeing the presence of the two key areas of high expectations and support and centering student voices could be that the HQIMs by design are student-centered curricula, and so these principles are foundational to the curriculum. In turn, these two key areas are reflected in the supports offered to implement the HQIM. The remaining key areas of CLSP, which have less overlap with other student-centered learning pedagogies, are not present or explicit in the HQIM, and therefore they would require targeted PL opportunities and continued support to build teachers' expertise around effectively using CLSP in instruction.

Mid-Term Research Question 3

What current educator beliefs and practices (e.g., educator mindsets about instructional materials, curriculum literacy, pedagogical practices, and expectations of students) are evident?

Key Findings

- In general, educators reported positive appraisals of the implementation of HQIM in their districts through the grant program, with large majorities indicated they were satisfied with communication around implementation, opportunities to collaborate with other teachers during the grant program, and that their professional judgement was respected during the process.
- A substantial portion of teachers reported that their instructional practice was positively influenced through the implementation of the HQIM, and provided evidence that the use of content-area specific instructional tasks was positively associated with the use of higher-order thinking tasks in their classrooms.
- Although teacher satisfaction with HQIM implementation was generally high, a notable percentage of teachers were less satisfied that implementation of the HQIM would reduce existing performance gaps among students. Teacher concerns during the implementation of HQIM were largely around the need for additional supports and scaffolds for student who are English-learners and for students not currently performing at grade-level.
- Specific strategies were found to be predictive of more positive teacher outcomes (buy-in and satisfaction with HQIM implementation, belief that HQIM will support equitable learner outcomes, and high expectations for students):
    - Administrator support for CLSP
    - Two-way communication between administration and educators
    - Ensuring access to the needed HQIM materials and time in the schedule to teach the HQIM lessons
    - Access to supports for students currently performing below grade level
    - Access to workshops specifically related to the HQIM
- Classroom observations of strong implementers of HQIM found themes in:
- Teacher roles (such as communicating why content was being learned and how students would engage in the learning)
- Use of instructional materials (such as the use of media and technology to provide visual examples of concepts)

- Instructional practices (such as the use of question frames to promote deeper thinking)
- Connecting in-class learning to out-of-school experiences and CLSP

To answer this research question, the Evaluation Team identified key findings that described educator beliefs and practices related to HQIM implementation at the conclusion of the initiative. Findings were drawn from analyses of the Time 2 teacher survey dataset, including mixed-model regressions with teachers nested within districts (n = 1,479) and qualitative analysis of open-ended responses from the spring teacher survey, the DIGL survey, and interviews with teachers who participated in classroom observations as part of the evaluation.

The findings that are noted below focused on the following:

1. Depicting broad trends in teacher mindset at the conclusion of the grant program
2. Using regression analyses to identify potential levers that could be influenced by school- and district- leaders to support positive teacher mindset about HQIM implementation
3. Using thematic analyses of teacher interviews and observations to form a rich description of instruction within the context of HQIM implementation in a selection of schools identified as strong adopters

The Evaluation Team's interpretation of the findings was also informed by interviews conducted with the ICs. Across IC organizations, there was a common view that effective HQIM implementation relied on supporting teachers to "internalize" the curriculum. The state of "internalization" occurred when teachers had a thorough understanding and familiarity of the HQIM and disciplinary content so that the teachers could artfully make decisions about teaching the curriculum that maintained rigor and reflected the shared priorities of the district. Internalization required coordinated supports, intentional PL from experts, and other systems and structures.

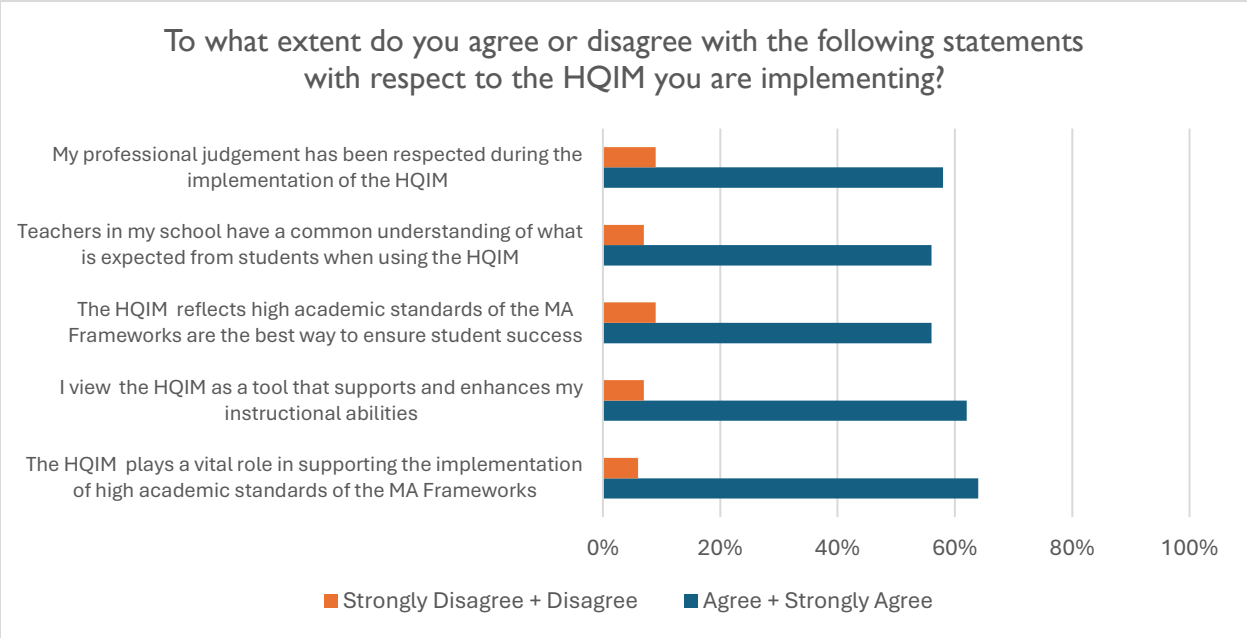
Findings on Teacher Perspectives on HQIM Implementation

A descriptive analysis of the results of the spring 2024 (Time 2) teacher survey (n = 1,479) provided a general understanding of the perspectives of teachers involved in the initiative at the conclusion of the evaluation. These analyses were also triangulated with qualitative analyses of open-ended responses to the question, "Thinking about [HQIM]

implementation over time, do you feel the implementation in your classroom has changed since you've started using this curriculum? In what ways?"

Analysis revealed that teachers, in general, had positive sentiments about the HQIM implementation initiative. Most teachers "agreed" or "strongly agreed" with a series of items that asked about their viewpoints regarding the value of the selected HQIM and if it would help their students meet Massachusetts state standards. Comparatively, fewer than 10% of respondents "disagreed" or "strongly disagreed" with these items (see Figure 4).

Figure 4: Teacher perspectives on aspects of HQIM implementation



This trend was consistent with comments from teachers in response to the open-ended survey items. Several teachers shared that the HQIM had provided their students with more opportunities to problem solve and collaborate, leading to greater learning, better work, and higher engagement, as displayed in the following examples of responses:

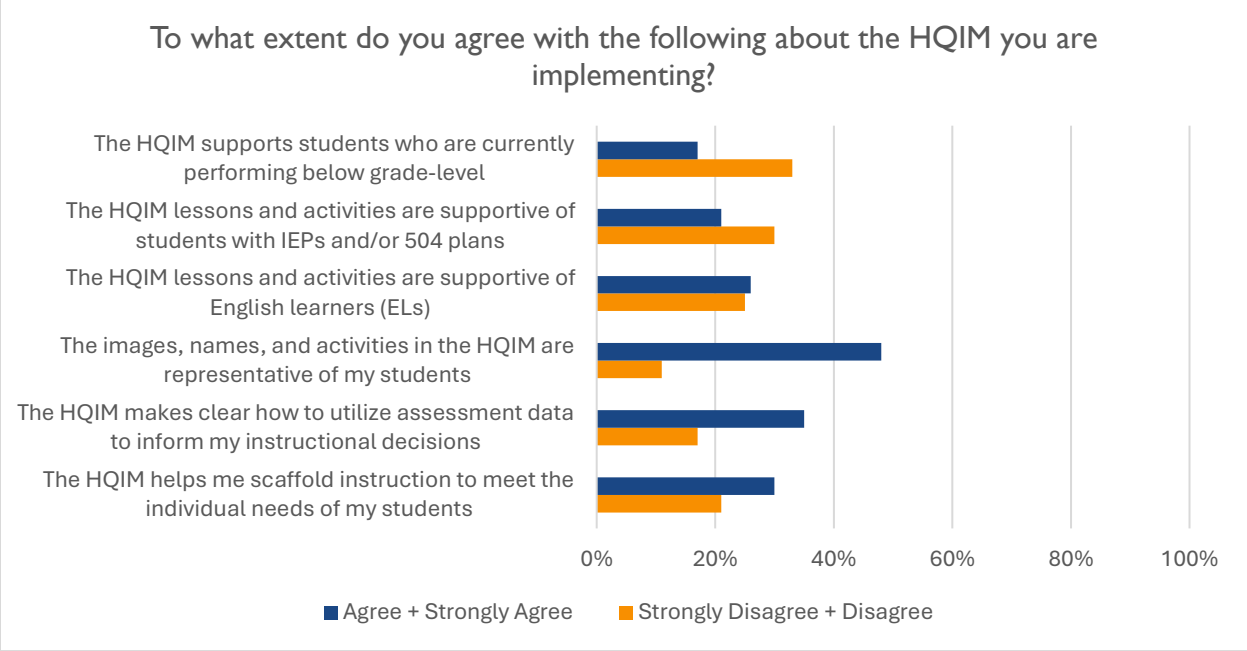
> *"The new curriculum requires students to think about what they know and apply it to new situations. In the past, they were asked to simply memorize and follow procedures, so there will be an adjustment period. Students are now more willing and seem more comfortable in productive struggle, and don't give up as quickly when faced with obstacles."*

> *"I believe that students are engaged in more mathematical discussion and there have been an increased number of opportunities for students to explain their mathematical reasoning through writing. Students are challenged and*

there are multiple opportunities for students to work collaboratively within each unit."

Different trends were observed, however, on teachers' views of the extent to which the implementation of HQIM currently served students who required additional supports. For these items, the percentages of teachers who "agreed" or "strongly agreed" were less than the majority- in some instances, much less. And for items related to the extent to which the HQIM met the needs of students currently below grade level or students with IEPs, the percentage of teachers who "disagreed" or "strongly disagreed" was larger than the percentage of teachers who agreed with the statement (see Figure 5).

Figure 5: Teacher perspectives on student support provided through HQIM implementation



The concerns about supports for these students were also found in the open-ended responses, where a number of teachers provided statements about the challenges of having to navigate access to HQIM content for students who were ELs or special education (SPED) students or who were currently performing below grade level. Frequently, these comments noted a lack of scaffolding and a need for supplemental materials to make the HQIM accessible for their students, as seen in these examples:

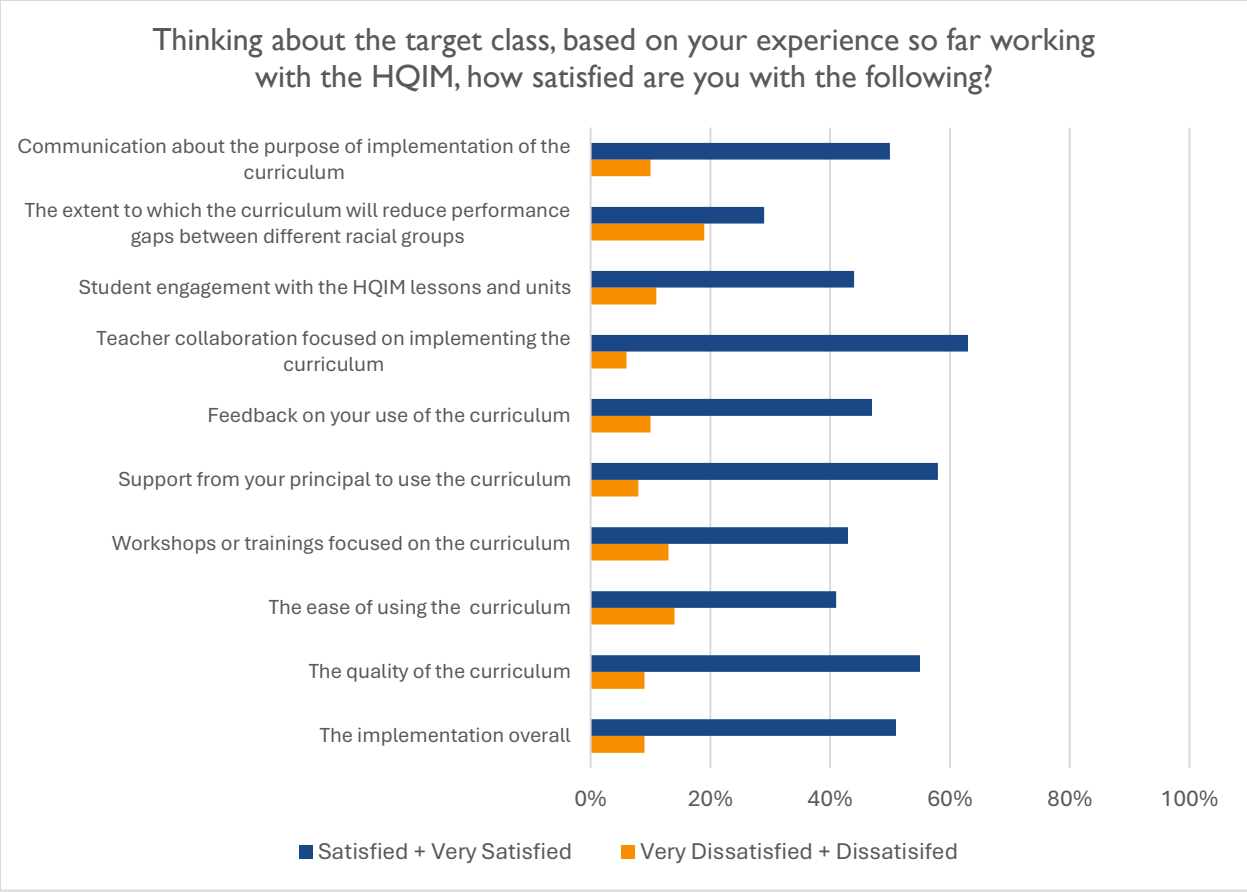
"I tried to implement with fidelity at first, and since have found many gaps and areas that lack that don't help my students who have IEPs, are ELLs, or are students who struggle with math concepts in general. I have had to create supplemental lessons, provide time for additional practice, include the use of more constructed response work that is expected for state testing (MCAS),

and slow down the pace of the curriculum as it rarely allows time to fully practice and master concepts."

"The curriculum itself needs much scaffolding to be linguistically accessible, even the guides given through the site are not incredibly useful. Therefore to implement it within the classroom I am required to heavily scaffold all the material more so each year based on the needs of my classroom."

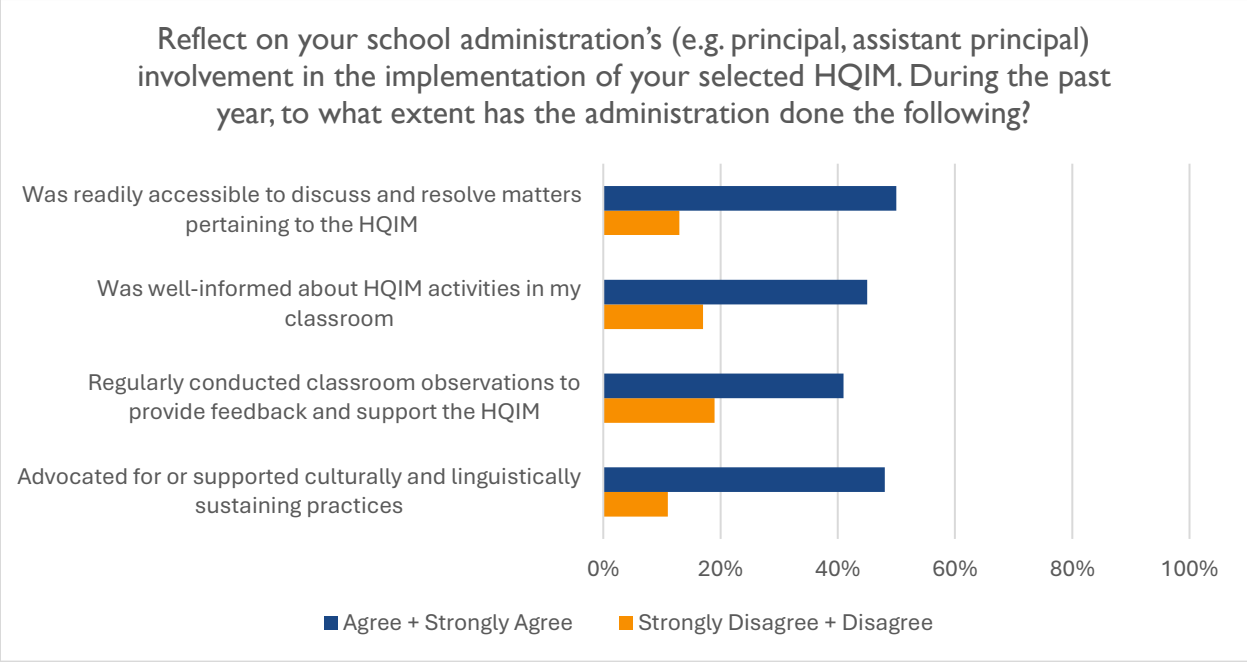
The trends outlined above were consistent with teacher responses to items that asked about their satisfaction with HQIM implementation when thinking of their experience leading instruction for a specific class. For these items, most teachers were again found to view aspects of HQIM implementation positively, and only a small percentage shared a negative perspective. These items included statements about implementation overall, the ease of use of the HQIM, support from the principal for HQIM implementation, and availability of teacher collaboration (see Figure 6). Among this set of items, however, the lowest level of satisfaction was found in response to the statement, "The extent to which the curriculum will reduce performance gaps between different racial groups."

Figure 6. Teacher perspectives on satisfaction with HQIM implementation



Teacher perspectives on the different supports provided across the initiative showed findings on the extent to which teachers were able to access these supports, and their perceived effectiveness. School- and district- leadership was a key feature of the HQIM implementation theory of change. Among respondents to the Time 2 teacher survey, the reported involvement of leadership varied, as slightly less than half of respondents "agreed" or "strongly agreed" with statements about leadership supports (see Figure 7).

Figure 7. Teacher perspectives on the role of school administration in implementation of HQIM



Responses from teachers reflected how administrator support connected with teachers' internalization of the HQIM. Teachers relied on administrators to create and sustain conditions for success, such as sufficient instructional time. Other comments, however, indicated that teachers felt like they did not receive enough support from administrators.

> *"The administration allotted an additional 60-minute block this school year (for a total of 120 minutes) for daily lessons. Getting further into the scope and sequence this year has built my familiarity with the program contents which makes me more comfortable in my instruction. Also, the administration purchased additional materials required (but did not come with the curriculum from [Vendor]) for the "science" units (tuning forks, flashlights, prisms, etc.) to enhance and support the lessons."*

> *"I have become more comfortable making modifications when needed for my students (especially my high population of English Language Learners)*

although these accommodations have been discouraged by both my school and district admin."

One teacher noted that, although they received support, it came in response to requests, describing the administrator support as "reactive support versus a proactive support."

PL opportunities were another key aspect of the HQIM implementation theory of change. Teacher respondents provided evidence that, in general, teachers had a slightly positive view of the adequacy of the PL supports connected to the initiative, with a notable difference in responses related to PL for CLSP (see Figure 8).

Several responses to the open-ended item provided examples of teachers citing trainings and other PD that helped them to implement the HQIM in their classrooms:

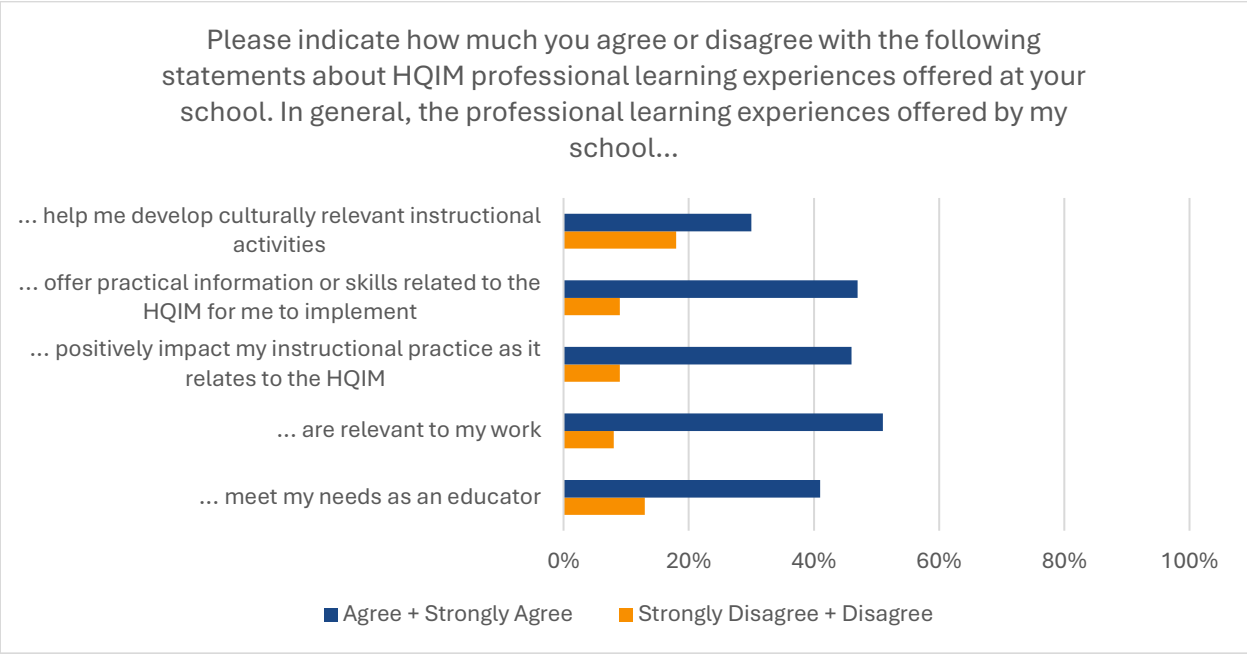
> *"{The HQIM] was very difficult to grasp in my first year of implementation. The pacing slowed incredibly as students did not grasp certain concepts. This affected the entire scope and sequence, as I was not able to teach all the modules. This year I am 6 weeks ahead of where I was last year. I believe it's because of my comfort with the material and the increased collaboration with my math coach and district coordinator."*
>
> *"This year's guidance and coaching has really opened up my teaching—the productive struggle, and communication skills of the students have increased greatly. I am so pleased with the guidance and support from our rep and coach this year. Our assistant superintendent worked with* [IC] *to help support us. She was instrumental in keeping our support all year."*
>
> *"I think overtime its just become more and more easy to teach since we are that more familiar with the curriculum. At my current school we have implemented* [HQIM] *and learned how to teach it exactly the way it's supposed to be taught. Our coaches in the district have done an amazing job helping other districts implement, provide materials and additional resources for teachers who may be having difficulty transitioning into the new curriculum. I absolutely love teaching* [HQIM]. *Not only are the kids demonstrating a level of engagement I have never seen with another curriculum, but their conceptual understanding and math sense is so strong."*

Some teachers, however, shared descriptions of experiences where the PL supports were inadequate or poor quality and did not address their needs:

"We have had to adapt the curriculum's pacing and content to align with the sequence of math standards in our interdisciplinary units. We have not received any help or guidance despite repeated requests, due to our school-based coaches' refusal to work in Dual Language classrooms."

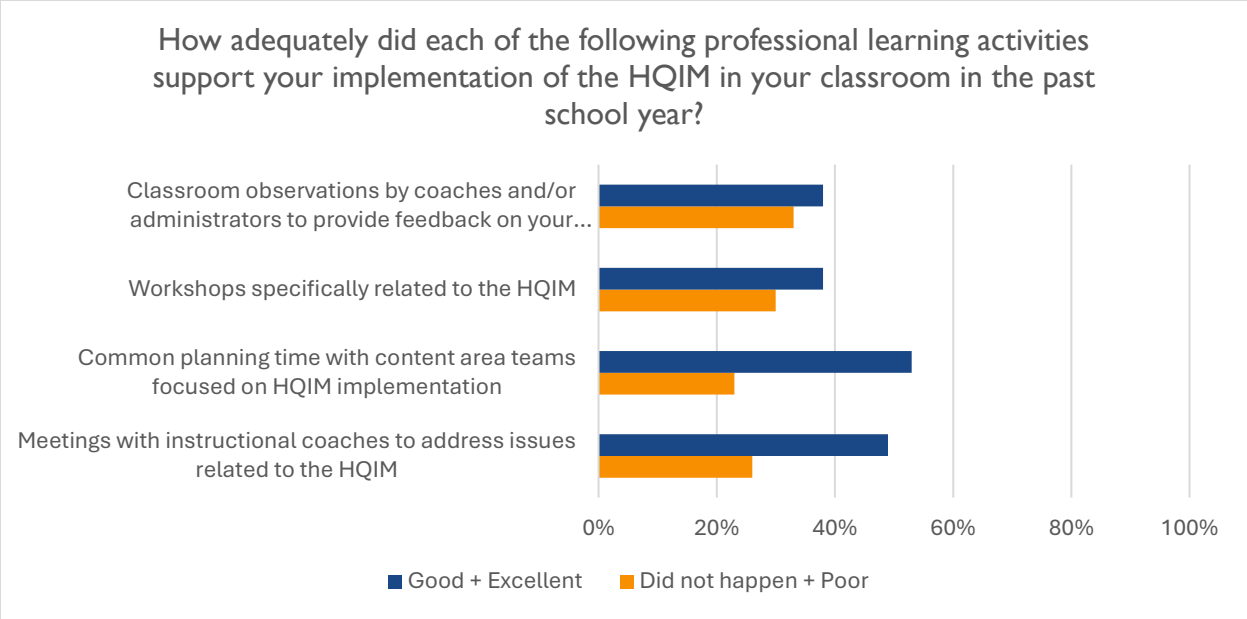
"The coaches do not seem in any way familiar with the curriculum and have often refused to model lessons."

Figure 8. Teacher perspectives on professional learning experiences



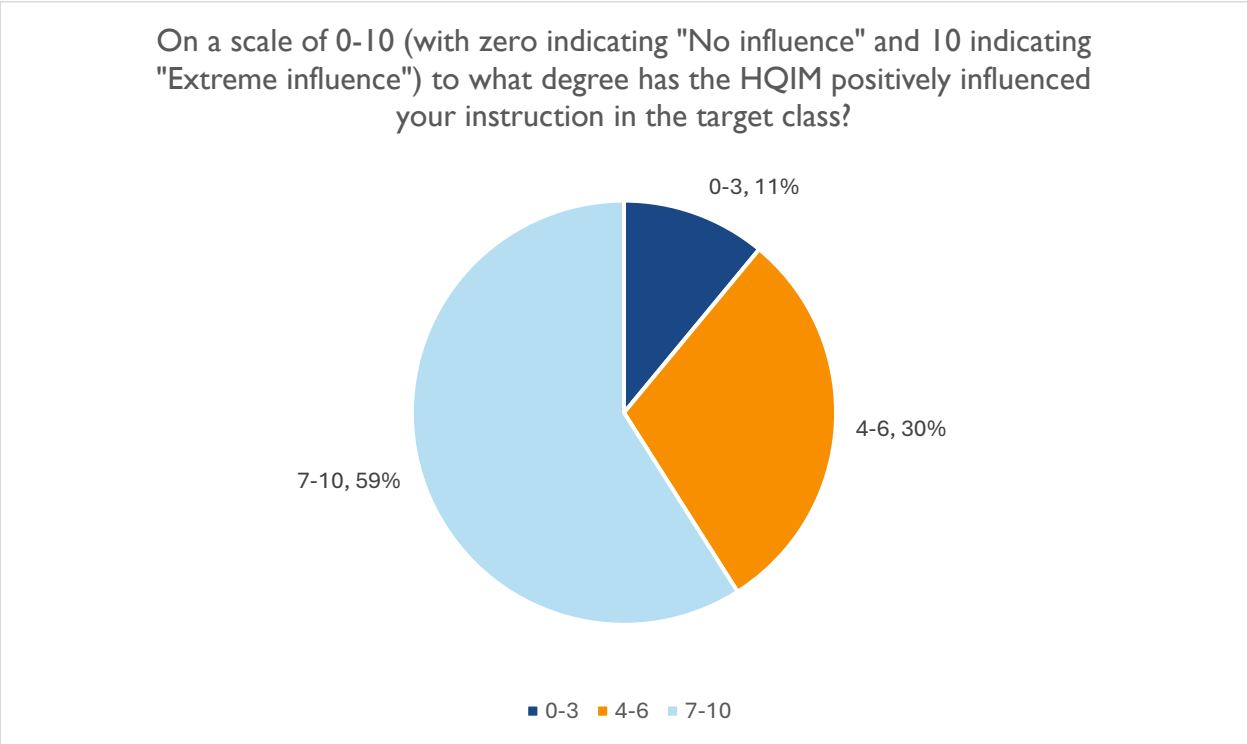
Teacher participation in strong PD could also be limited by availability, with between one-quarter and one-third of respondents indicating that various supports were either not available or inadequate (see Figure 9).

Figure 9. Teacher perspectives on adequacy of professional learning as supports for implementation



Teachers did report, in general, that the implementation of the HQIM had had a positive influence on their overall instruction, with the majority of teachers rating the level of influence as a 7 (out of 10) or higher (see Figure 10).

Figure 10. Teacher perspectives on the influence of HQIM on their instruction



Implementation Factors Predictive of Key Teacher Outcomes

The Evaluation Team further investigated outcomes related to teacher beliefs, mindset, and practices by conducting mixed-model regression analyses with teachers nested within districts. These analyses examined if, and to what extent, factors in implementation were predictive of five main constructs: (1) teacher satisfaction with the HQIM implementation, (2) teacher's high expectations for their students, (3) teachers' perceptions of equity, (4) teacher buy-in to the HQIM, and (5) teacher's beliefs about the capabilities of their students.

The following tables are organized around four sets of factors that were tested in the regression analyses: (1) leadership involvement, (2) district supports and infrastructure, (3) PL opportunities, and (4) classroom practices. The tables highlight statistically significant relationships between these factors and the outcomes of interest, that is, where the results of the regression analyses indicated that a factor was predictive of the key outcomes.

Leadership Involvement

Teacher agreement to the statement "leadership in my school advocated for or supported culturally and linguistically sustaining practices" was positively and significantly predictive across all scales, suggesting that this attribute was influential to teacher beliefs about HQIM implementation. This finding fit with other findings that indicated teachers, generally, had concerns about inadequate supports for students who were ELs or SPED students or who were not meeting grade-level standards. This finding indicates that leadership attention in this area may mitigate the extent to which these concerns affect teacher attitudes about HQIM implementation overall.

Another theme in these findings was that the perceived presence of "two-way communication" between leadership and educators was a significant and positive predictor of teacher satisfaction, teacher buy-in, and teacher high expectations for their students. This finding supported the value in attending to communication as part of the overall plan to implement the HQIM (see Table 21).

Table 21. Statistically significant regression estimates for leadership involvement

	Satisfaction	High Expectations	Beliefs	Buy-In	Equity
Advocated for or supported CLSP	0.782**	0.336**	0.518**	0.210**	1.128**
Rate the quality of two-way communication between educators	0.963**	0.252*		0.310**	

(you) and your school administration					
Was well-informed about activities in my classroom	0.688*				
Was readily accessible to discuss and resolve matters pertaining to the curriculum		-0.277*			

** Significant at the 0.01 level (2-tailed)

* Significant at the 0.05 level (2-tailed)

District Supports

The regression analyses of district supports found a set of three items that were significant and positive predictors across the teacher outcome scales. Two of these items pointed to the need to position teachers to be able to implement the HQIM in their classrooms, namely, that they have access to all the necessary materials and sufficient instructional time to lead HQIM lessons. The third item pointed to the value of having an adequate infrastructure of supports for students not performing at grade level (see Table 22).

Table 22. Statistically significant regression estimates for district supports

	Satisfaction	High Expectations	Beliefs	Buy-In	Equity
I have all the necessary materials I need to implement the curriculum in my classroom.	1.722**	0.432**	0.398**	0.243**	1.423**
The allocated instructional time in your class adequately meets the recommendations of the curriculum developers.	0.482**	0.170**		0.119**	0.493**
There are support services for students who performed below grade level in the past school year.	0.791*	0.363**	0.426*	0.304**	0.840*
There are support services for students who are ELs.					1.093**

** Significant at the 0.01 level (2-tailed)

* Significant at the 0.05 level (2-tailed)

Professional Learning Opportunities

Analyses pointed to the potential benefits of providing teachers with "workshops specifically related" to the HQIM, as increased participation in this type of PL experience was significant and positively related to each of the teacher outcome scales. Also, the higher frequency of meetings with "coaches or instructional experts" as part of the HQIM implementation were positive and significant predictors of teacher high expectations, teacher beliefs, and teacher perceptions of equity. (see Table 23)

Findings on teacher interest and availability of attendance of PD related to CLSP were inconclusive.

Table 23. Statistically significant regression estimates for PL

	Satisfaction	High Expectations	Beliefs	Buy-In	Equity
Workshops specifically related to the intervention	1.716**	0.360**	0.396**	0.268**	1.502**
Frequency of meetings with a coach or instructional expert as part of PL.		0.282*	0.329*	0.223**	
Common planning time with content area teams focused on implementation	0.489*		0.449**		
Expressed interest in receiving CLSP training				0.365**	
Received PL related to CLSP related to the intervention			-0.805*		
No interest in CLSP training			-0.636*		

** Significant at the 0.01 level (2-tailed)
* Significant at the 0.05 level (2-tailed)

Classroom Practices

Teachers were asked to identify practices they used in the classes they led, as well as provide frequencies on subject-area specific instruction. Table 24 provides the correlation coefficients of these sets of practices, by content area. Among math HQIM teachers, the strongest correlations with the explicit instruction score were for tasks that required critical thinking, asked students to decide on their own procedures for solving complex tasks, and

referred to problems in everyday life or work to demonstrate knowledge. For ELA teachers, the reported practices that most correlated with the explicit instruction scale were for language development tasks for English language learners (ELLs) that provided opportunities to discuss or recognize students' cultures and values and tasks that referred to a problem from everyday life. These statistically significant correlations supported the concept that the content area-specific tasks were frequently associated with instructional practices that supported higher-order thinking.

Table 24. Relationship of reported explicit instruction practices to other classroom practices among survey respondents

Classroom Practices	Math Explicit Instruction Score	ELA Explicit Instruction Score
When teaching in the target class, how often does your lesson include the following? – (b) Give tasks that require students to think critically	.308**	.269**
When teaching in the target class, how often does your lesson include the following? – (d) Ask students to decide on their own procedures for solving complex tasks	.280**	.209**
When teaching in the target class, how often does your lesson include the following? – (e) Refer to a problem from everyday life or work to demonstrate why new knowledge is useful	.260**	.273**
When teaching in the target class, how often does your lesson include the following? – (f) Have students practice similar tasks until you know that every student has understood the subject matter	.252**	.253**
When teaching in the target class, how often does your lesson include the following? – (g) Provide an opportunity to discuss or recognize students' cultures and values	.227**	.346**
When teaching in the target class, how often do you do the following? – (c) Use a variety of assessment strategies	.190**	.173**
When teaching in the target class, how often does your lesson include the following? – (i) Attend to language development for English language learners	.164**	.362**

When teaching in the target class, how often does your lesson include the following? – (c) Have students work in small groups to come up with a joint solution to a problem or task	.162**	.224**
When teaching in the target class, how often does your lesson include the following? – (a) Present tasks for which there is no obvious solution	.155**	0.068
When teaching in the target class, how often do you do the following? – (e) Vary instructional strategies in the classroom	.151**	0.082
When teaching in the target class, how often do you do the following? – (b) Motivate students who show low interest in school work	.083*	-0.020
When teaching in the target class, how often do you do the following? – (d) Provide an alternative explanation (e.g., when students are confused)	.078*	-0.072
When teaching in the target class, how often do you do the following? – (a) Take steps to respond to disruptive behavior in the classroom	0.003	0.015

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed)

Qualitative Themes from Teacher Observations

The Evaluation Team conducted a series of classroom observations (n = 18) and follow-up interviews. Participants were selected from schools identified as strong implementers of the HQIM based on the fall 2023 teacher survey. These observations and interviews provided rich accounts of instruction in the context of HQIM implementation. Thematic analysis was organized around unpacking, in detail, four dimensions of teacher activities that reflected the translation of HQIM into classroom experiences of students:

- The role of the teacher
- The use of instructional materials
- Instructional practices
- Connecting in-class learning to out-of-school experiences and CLSP

The Role of Teacher

Within classroom observations, the role of teacher was multilayered. Teachers were expectation setters by communicating not only what students would be learning (e.g., content and concepts) but also why and how students would engage in the process of learning. Framing the why came through the following:

- Posting and discussing learning goals
- Discussing criteria for success
- Connecting learning from previous days to the current day (e.g., "yesterday we did X, today we are extending that by doing Y").

Teachers were also instructors and knowledge builders; at times, they engaged in direct instruction to introduce concepts, while at other times, they gradually released responsibility to their students. This gradual process involved modeling, thinking aloud with students, and creating opportunities for students to practice with them. Then students were given time for independent practice.

During guided instruction, teachers served as facilitators, probing students about their thinking and using affirming language to encourage students in their problem-solving. They also expected students to be active in their own learning, to collaborate with peers, and to use their voice and share their perspectives.

Finally, teachers expected students to follow routines. When students were off task, they were redirected and prompted to re-engage in activities and adhere to acceptable behavior norms and established classroom routines.

Teacher Use of Materials and Resources

Within implementation, teachers used a variety of materials and resources to support learning, which included traditional texts, such as core curriculum, worksheets, organizers, and supplemental materials, as well as discipline-specific manipulatives (e.g., math cubes). Some teachers used physical whiteboards on which students wrote their responses to questions and discussed them with the class to show their thinking. Other teachers incorporated media and technology to provide visual examples to reinforce concepts or make connections to students' lives by incorporating real-world examples from the Internet. Stations were another way for teachers to integrate resources, and which provided opportunities for students to engage in targeted independent practice of familiar concepts using computer programs. In multiple classrooms, students had access to an instructional aide, which helped facilitate small group learning or provide additional scaffolding and support for students in need. And finally, students were expected to use

each other as peer resources both to share their work and to ask each other questions about how they arrived at a conclusion or an answer to a problem.

Instructional Practices

Instructional practices observed for the teachers who were implementing the HQIM supported knowledge acquisition, critical thinking, and multiple opportunities to apply their learning. These practices included rich facilitated discourse and problem-solving and the use of various forms of questioning to elicit students' thinking.

For example, some questions were closed-ended, whereby teachers prompted students to delve deeper into a specific part of a process or to ask questions about a specific place in a curricular resource. Teachers used questions such as "how can we summarize this" or "did he measure correctly"? Other times, teachers asked open-ended question to foster critical thinking. There were several examples where this was observed. Teachers used question frames, such as "what do you notice?," "what do you wonder?," "why?," or "what could this represent?" They also encouraged students to collaborate and share their thinking within routine turn and learn activities with their partners as well as in whole group discussions.

These interactions were primarily teacher directed. However, there were instances of discussions where students talked freely and built knowledge with each other or engaged in reciprocal dialogue with their teacher. Within these facilitated discussions, teachers used purposeful language, often incorporating content-specific vocabulary terms from their units or providing directional feedback for next steps. These "in the moment" checks for understanding with feedback encouraged students to engage in productive struggle with the teacher as their guide and holding them to high expectations.

Additionally, teachers provided opportunities for students to demonstrate thinking in multiple ways. For example, in one classroom, while working through a difficult math word problem, students were asked to "make a picture" in their mind and describe that picture. In another classroom, students were asked to read and analyze a text and then to explain their thinking in small groups. They were also asked to discuss small group learning in a whole group discussion with guidance from the teacher. Additionally, students were asked to use a worksheet to put their thinking "in their own words" in writing.

Connecting In-Class Learning to Out-of-School Experiences and Culturally and Linguistically Sustaining Practices

Within the classrooms observed, the Evaluation Team found evidence of teachers connecting learning to students' lives and instances of practices aligning with culturally and linguistically sustaining practices. The team observed multiple examples where

teachers connected content within the classroom to experiences from students' real lives. In one such instance, a teacher introduced the mathematical concept of "cross-sections" found in geometry and explained new terms to students using football examples while also incorporating media. In another example, a teacher taught an ELA lesson focusing on differentiating fact from opinion while analyzing a text; she illustrated her point using an example drawn from students' ice cream preferences at an ice cream shop. Similarly, another teacher discussed space travel and working for NASA in their lesson, and prompted students to imagine that they were in an SUV with the same people all year. She used this example to draw a comparison between tightly shared spaces in spaceships and riding in a car to provide a direct reference that students could relate to and understand more deeply.

In other instances, teachers aligned their practices with culturally responsive teaching. For example, one teacher chose to have her students read and summarize a biography about Bessie Coleman, the first African American pilot in the United States. She discussed Bessie Coleman as a "dreamer" and "hero" to her students, introducing culturally diverse historical figures into her classroom readings. During this lesson, she also made a reference to Martin Luther King, Jr., discussing the unfair treatment of African Americans (see MRQ2 for more details). In another example, a teacher who had multilingual students in her classroom used a few words in Spanish that both she and her students were fluent in to help explain a concept.

Facilitating Learning with Varying Student Need and Multilingual Learners

A handful of the classrooms observed by the Evaluation Team were co-taught with a SPED instructional support person or with an individual who supported multilingual learners. It was evident that the collaborative relationship between the general education teacher and the SPED co-teacher, the teachers' pedagogy, as well as the academic level of students made a difference in students' experiences with HQIM implementation.

For example, in one co-taught classroom, the general education teacher and SPED teacher spent the entire day together and embedded accommodations into whole group instruction. In this same classroom, the general education teacher held high expectations for students, facilitated reciprocal discussions, and encouraged students to reflect learning they could glean from mistakes, which she referred to as "gifts." In another co-taught class, although there were four adults in the room, they all worked seamlessly together to provide scaffolding and supplemental materials (e.g., manipulatives) and to create an environment with rich teacher-to-student and student-to-student discourse. In this class, although there were American Sign Language supports provided for accessibility

and multilingual learners, students were generally at or above their grade level regarding academic proficiency. Conversely, in other co-taught classes where students were not at grade level, teachers typically used small group learning and engaged in modeling and scaffolding students. These teachers reminded students of routines and classroom norms, redirected behaviors, and shared responsibilities in assisting students in need.

Closing Remarks

- In general, teachers reported high-level of satisfaction with the process used to implement HQIM in their districts. This trend is notable because of critical role of teacher buy-in to ensure that the HQIM is used with fidelity. These findings were consistent with the process of implementation espoused in the grant program which provided for district leaders to take steps to build teacher buy-in, such as developing and communicating a clear vision for the HQIM.
- Teachers were less satisfied with certain aspects of HQIM implementation, namely the adequacy of supports and scaffolds for the EL students and students not performing at grade-level, and that the HQIM will address performance gaps among student groups. These trends may point to a progression of teacher buy-in, with the prospect that, with continued leadership and supports, beliefs may become more positive about the HQIM and its capacity to serve the needs of these students.
- Survey results pointed to a set of leadership actions worth greater attention when developing plans to support HQIM implementation because they were predictive of positive results in key teacher outcomes:
    - Administrator support for CLSP
    - Two-way communication
    - Ensuring access to the needed HQIM materials and time in the schedule to teach the HQIM lessons
    - Access to supports for students currently performing below grade level
    - Access to workshops specifically related to the HQIM,
- Themes from teacher observations provide a depiction of instruction within the context of HQIM implementation that can be illustrative for teachers and administrators seeking to instill these approaches in their practice. The themes that were found were: the role of the teacher, the use of instructional materials, instructional practices, connecting in-class learning to out-of-school experiences and CLSP.

Long-Term Research Question 1.

What changes in teacher attitudes, practices, and beliefs, and district and school systems and structures are evident after one year of grant program support?

a) **What are the perceptions of DIGL team members and teachers regarding the association between components of HQIM implementation and these changes?**

Key Findings

- As teachers spent more time implementing the HQIM, their satisfaction with it increased, there was a positive shift in teachers' expectations of students, their beliefs about student capabilities were positively impacted and their perception of equity in HQIM implementation improved.
- The key factors that were positively correlated with the outcomes of interest were: observing other teacher's classrooms, working collaboratively to review student data, and professional learning that was relevant to the teachers.
- Observing other teacher's classroom had a positive correlation on three outcomes of interest, namely: teacher satisfaction, teacher belief about student capabilities, and teachers' perception of equity in HQIM implementation
- Working collaboratively to review student data had a positive correlation with the outcomes of teacher satisfaction and high expectations
- Only professional learning that is relevant for the educator or was reported as having a positive impact on instruction was positively correlated with the outcomes of teacher's high expectations and teacher satisfaction respectively. Taking part in professional learning offered was not sufficient to positively impact the outcomes of interest and in fact it negatively impacted teachers' perception of equity in implementation and their satisfaction.
- A larger percentage of EL students in a classroom was negatively correlated with teacher satisfaction and teachers' beliefs about student capabilities with respect to the HQIM. In other words, when there were more EL students in a class, the teachers were less satisfied with the HQIM over the course of the year and their beliefs about student capabilities within the HQIM also decreased over the year.
- The themes that emerged around reasons for positive shifts in implementation were around teachers feeling more confident with using the HQIM as they developed experience with it and their students developed more familiarity with the routines in the curriculum. These aspects helped with addressing issues around pacing and better equipped teachers to make adjustments and adaptations to the curriculum to meet their students' needs.

The data sources used to answer this question were (1) data from teacher survey respondents who filled out both Time 1 and Time 2 surveys (matched sample), (2) teacher survey open-ended responses from the second administration of the survey (Time 2), and (3) open-ended responses from the DIGL survey.

Data analysis on the **teacher survey data for 502 teachers** who responded to the survey at both time points of survey administration (matched sample) revealed statistically significant changes in the four of the five key outcomes of interest: (1) teacher satisfaction with HQIM design and implementation, (2) high expectations of students, (3) teachers' beliefs about student capabilities, and (4) teachers' perception of equity in HQIM design and implementation (see Table 25).

The t-tests revealed no change in teacher buy-in, the fifth outcome of interest between the two time points. But the t-test results showed a statistically significant increase in teacher satisfaction from Time 1 to Time 2. This change suggested that teachers responded positively to the HQIM implementation over time. Additionally, teachers' high expectations of students, beliefs about student capabilities, and perceived equity in HQIM implementation saw a modest but statistically significant rise across the school year. While encouraging, the significant t-tests do not dissect the underlying reasons for this increase, such as other influencing factors or district-level factors.

Table 25. t-test results for changes in teacher attitudes and perceptions between fall and spring

Outcomes of Interest	Fall Mean	Spring Mean	Mean Difference	t-Score	Significance
Teacher buy-in	12.03	12.18	0.16	1.39	0.166
Teacher satisfaction with HQIM implementation	41.76	42.86	1.10	3.97	0.0001 *
Teacher high expectations	16.35	16.62	0.27	2.76	0.006 *
Teacher belief about student capabilities	33.64	34.31	0.67	3.74	0.0002 *
Teacher perceived equity in HQIM implementation	37.97	38.69	0.72	2.26	0.024 *

* Correlation is significant at the 0.05 level (2-tailed).

To better understand these changes, the Evaluation Team used mixed-effects multilevel regression for the statistically significant outcomes of interest because it allowed them to account for the data structure, where factors at multiple levels may influence responses. Due to a small number of observations at the school level, the team focused the multilevel

regression analysis on two levels: teacher and district. Using this approach, they were able to mitigate the bias and instability in the model that could arise from insufficient data at the school level.

The following section presents the results of the mixed-effect analysis, detailing how changes in time influenced the key outcomes of interest that were statistically significant in the t-test: (1) teacher satisfaction with HQIM design and implementation, (2) high expectations of students, (3) teachers' beliefs about student capabilities, and (4) teachers' perception of equity in HQIM design and implementation.

Outcome 1: Teacher Satisfaction with HQIM Implementation

In the multilevel analysis, the coefficient for time indicated a statistically significant increase in teacher satisfaction over the academic year (see Table 26). This suggested that the positive trend in teacher satisfaction observed in the t-test results continued to persist when additional factors were included. In effect, when the influences of variables, such as teacher beliefs, classroom demographics, and PD activities, were accounted for, the direct impact of time on satisfaction continued to persist, thereby indicating **that as teachers spent more time implementing the HQIM, their satisfaction with it increased.**

Table 26. Factors influencing teacher satisfaction with HQIM implementation

Independent Variables	Coefficient	Standard Error	P>z
Time	**1.00**	**0.29**	**0.00***
Prior experience in teaching HQIM	-0.76	0.81	0.35
Class size	-0.06	0.04	0.13
Non-White	-0.01	0.01	0.61
Percentage of ELL in class	**-0.75**	**0.23**	**0.00***
Percentage of IEP in class	**0.11**	**0.05**	**0.03***
Percentage of low-income students in class	0.02	0.03	0.44
PL's positive impact on HQIM Instruction	**0.18**	**0.05**	**0.00***
Additional PL time for HQIM implementation	-0.03	0.08	0.75
Observe other teachers' classes	**0.90**	**0.25**	**0.00***
Discuss student learning with educators	0.32	0.20	0.10
Work with other teachers to review student data	**0.56**	**0.22**	**0.01***

Attend conferences	0.22	0.20	0.26
Take part in PL	**-0.42**	**0.20**	**0.04***
Intercept (_cons)	39.88	1.67	0.00

Wald chi2 (16) = 85.25; log likelihood = -3065.7665; prob >chi2 = 0.0000
n = 920; number of districts = 45; number of teachers = 505
* Indicates significance at the 5% level ($p < 0.05$).

Other influences on teacher satisfaction: The factors that were statistically significant ($p < 0.05$) in influencing teacher satisfaction are stated below:

- Teachers who took part in PL and reported **that professional learning had a positive impact on HQIM instruction** had higher satisfaction with HQIM implementation. Conversely, teachers who **only reported participating in professional learning** activities and did not identify its impact on HQIM implementation had a statistically significant **decline in their satisfaction**. These two findings indicate the importance of PL activities being responsive to teacher needs. A positive impact from PL on instruction indicates that the opportunities offered to those teachers were grounded in their classroom realities, which allowed them to translate the learning into their instruction. Additionally, over the course of the year, the needs of the teachers with respect to implementation are likely to change and the PL needs to be adapted to meet teacher needs otherwise they are less likely to be perceived as useful.

- Teachers who worked **collaboratively to review student data** were more satisfied with HQIM, pointing to the benefits of collaborative learning when instructional decisions around learning were based on student data.

- Similarly, **teachers observing their peers' classes significantly improved teacher satisfaction**, which indicates the effectiveness of practical, observational learning experiences in increasing satisfaction.

- When it came to meeting the needs of students, a **higher percentage of ELs** in the class was associated with **lower teacher satisfaction**. This finding could indicate an inadequacy in the HQIM design and materials to support multilingual learners or a lack of support available to teachers to support ELs in the context of the HQIM.

- In contrast, a higher proportion of **students with IEPs correlated positively with teacher satisfaction**. This finding might indicate that teachers felt the differentiated learning opportunities provided by the HQIMs were adequate to allow them to support the needs of IEPs.

In examining the random effects from the analysis, the variance components revealed substantial variability at both the teacher and district levels. The variance at the teacher level was notably higher than at the district level, indicating that individual teacher characteristics significantly impacted their satisfaction with HQIM implementation more than the broader district factors. This intra-teacher variance suggests that while districtwide support systems were important, individual teachers' experiences, attitudes, and interactions with HQIM shaped their overall satisfaction.

Outcome 2: Teacher High Expectations Over Time

The coefficient of time representing the change from fall to spring (Time 1 to Time 2) showed a slightly positive coefficient of 0.22 ($p < 0.05$), which indicated that **over the academic year, there was a small but significant increase in teachers having high expectations of their students** (see Table 27). This result aligned with the t-test, which suggested a positive trend in high expectations between the two time points. When examining the random effects from the model, they revealed significant variability at the teacher level compared to the district level, similar to what was observed for teacher satisfaction. This implies that the variance at the teacher level far exceeded that at the district level, highlighting that **individual teacher characteristics played a more substantial role in shaping their high expectations than district-level factors**.

Table 27. Factors influencing teacher high expectations

Model	Coefficient	Standard Error	P>z
Time	**0.22**	**0.11**	**0.05***
Prior experience in teaching HQIM	0.00	0.29	1.00
Class size	-0.01	0.01	0.64
Non-White	0.00	0.00	0.65
Percentage of ELL in class	-0.12	0.08	0.15
Percentage of IEP in class	**0.04**	**0.02**	**0.03***
Percentage of low-income students in class	0.00	0.01	0.84
PL experiences relevance to an Educator	**0.05**	**0.02**	**0.01***
Additional PL time for HQIM implementation	-0.02	0.03	0.55
Observe other teachers' classes	0.15	0.09	0.09
Discuss student learning with Educators	0.02	0.07	0.76

Work with other teachers to review student data	**0.17**	**0.08**	**0.03***
Attend conferences	0.05	0.07	0.50
Take part in PL	-0.07	0.08	0.35
Intercept (_cons)	15.53	0.60	0.00

Wald chi2 (16) = 34.24; log likelihood =-2115.6096; prob >chi2 = 0.0019
n = 921; number of districts = 45; number of teachers = 505
* Indicates significance at the 5% level ($p < 0.05$).

Other influences on teacher high expectations: The factors that were statistically significant ($p < 0.05$) in influencing teacher satisfaction are stated below:

- When **PL was reported as being relevant for the educator**, there was a **significant positive effect** on teachers' expectations, emphasizing the importance of responsive PL opportunities that are grounded in the context of the classroom.
- **Collaboratively reviewing student data also significantly increased teachers' expectations**, suggesting that data-driven insights into student progress can elevate teacher expectations of what students know and can do.
- The presence of **students with IEPs positively influenced teachers' high expectations of students**, perhaps indicating that the HQIM was responsive to the learning needs of students with IEPs. This finding is similar to what was seen in the teacher satisfaction outcome. Additionally, this finding could suggest that classes with a large presence of students with IEPs were being offered more support with HQIM (e.g., specialists, aides, etc.), which aided in shaping teachers' expectations for students with IEPs.

Outcome 3: Changes in Teacher Belief about Student Capabilities

There was a statistically significant increase in teacher beliefs about student capabilities with time (see Table 28). This finding suggests that changes observed between the two semesters impacted teacher perceptions about what students knew and could do. This finding is similar to the other outcomes of interest. Additionally, when examining the random effects from the model, the variance components revealed significant variability at the teacher level compared to the district level, similar to the other outcomes of interest.

Table 28. Factors Influencing Teacher Belief about Student Capabilities

Model	Coefficient	Standard Error	P>z
Time	0.64	0.20	0.00*
Prior experience in teaching HQIM	-0.13	0.44	0.77
Class size	-0.01	0.02	0.59
Non-White	-0.01	0.01	0.35
Percentage of ELL in class	**-0.28**	**0.13**	**0.03***
Percentage of IEP in class	0.03	0.03	0.41
Percentage of low-income students in class	-0.01	0.02	0.60
PL experiences relevance to an educator	-0.07	0.13	0.56
PL helps an Educator develop culturally relevant teaching	0.18	0.12	0.15
Additional PL time for HQIM implementation	-0.02	0.04	0.68
Observe other teachers' classes	**0.55**	**0.15**	**0.00***
Discuss student learning with Educators	0.21	0.12	0.08
Work with other teachers to review student data	0.09	0.13	0.48
Attend conferences	0.08	0.12	0.50
Take part in PL	-0.03	0.13	0.81
Intercept (_cons)	31.78	0.97	0.00

Wald chi2 (16) = 45.18; log likelihood = -3130.2276; prob >chi2 = 0.0000

n = 923; number of districts = 45; number of teachers = 505

*Indicates significance at the 5% level ($p < 0.05$).

Other factors influencing teacher's beliefs about student capabilities. The factors that were found to be statistically significant ($p < 0.05$) in influencing teacher beliefs are stated below:

- **Observing other teachers' classes** significantly enhanced teachers' beliefs about student capabilities. This exposure to diverse teaching methods and strategies likely broadened teachers' perspectives.
- The presence of a **higher percentage of EL students** in the class was associated with a **decrease in positive beliefs about student capabilities**. This finding is similar to the finding the Evaluation Team observed in the teacher satisfaction outcome of interest, thereby suggesting that the HQIM was not responsive to supporting the needs of EL students, which negatively impacted teachers' beliefs about EL students' capabilities. This is an area of need for schools and districts to build supports for teachers to meet the needs of EL students.

Outcome 4: Teacher Perceived Equity in HQIM Implementation.

Table 29 shows that the coefficient of time representing the change from fall to spring (Time 1 to Time 2) regarding perceived equity in HQIM implementation indicates a significant increase. This result suggests that **time significantly impacted teachers' perceptions of equity**, which is consistent with the other three outcomes of interest discussed previously. Also, as with the other outcomes of interest, the random effects analysis revealed that individual teacher factors played a more substantial role in shaping perceptions of equity in implementation than districtwide policies.

Table 29. Factors influencing teacher perceived equity in HQIM implementation

Model	Coefficient	Standard Error	P>z
Time	**0.65**	**0.33**	**0.05***
Prior experience in teaching HQIM	-0.44	0.85	0.61
Class size	-0.01	0.04	0.76
Non-White	0.00	0.01	0.94
Percentage of ELL in class	-0.12	0.25	0.64
Percentage of IEP in class	0.02	0.06	0.78
Percentage of low-income students in class	0.04	0.03	0.14
PL experiences meet educator needs	**0.25**	**0.06**	**0.00***
Additional PL time for HQIM implementation	-0.04	0.08	0.61
Observe other teachers' classes	**0.87**	**0.27**	**0.00 ***
Discuss student learning with Educators	0.19	0.22	0.38
Work with other teachers to review student data	0.24	0.24	0.33
Attend conferences	0.11	0.22	0.60
Take part in PL	**-0.44**	**0.23**	**0.05***
Intercept (_cons)	35.62	1.81	0.00

Wald chi2 (16) = 45.18; log likelihood = -3130.2276; prob >chi2 = 0.0000
n = 23; number of districts = 45; number of teachers = 505
* Indicates significance at the 5% level ($p < 0.05$).

Factors influencing teacher perception of equity in implementation. The factors that were statistically significant ($p < 0.05$) in influencing teacher satisfaction are stated below:

- **PL that effectively met teachers' needs** significantly increased their perception of equity. This indicates the importance of relevance and responsiveness in PL opportunities to improve equity perceptions among teachers.
- **Observing other teachers' classes** had a strong positive impact on teachers' perceptions of equity. This is similar to the outcomes of interest of teacher satisfaction and teachers' beliefs about student capabilities. Observing how other educators implemented HQIM exposed teachers to a variety of instructional strategies that they could add to their toolkit and use to meet student needs in their classroom.
- Similar to teacher satisfaction outcome of interest, **taking part in PL was negatively related** to teachers perceived equity in HQIM implementation. This finding underscores the importance of high-quality PL that is responsive to teachers needs of how best to support the learning of all students.
- Interestingly, the presence of ELL and IEP students did not show a statistically significant impact on perceived equity, indicating that the mere presence of diverse learning needs does not automatically influence teachers' perceptions of equity.

Themes for Teacher Perceptions around Changes in Implementation Over Time

To capture the **perceptions of teachers** regarding HQIM implementation and change over time (LRQ1a), the Evaluation Team qualitatively analyzed the **open-ended responses** on the teacher survey for Time 2 where teachers responded to the following prompt: *"Thinking about* [HQIM] *implementation over time, do you feel the implementation in your classroom has changed since you've started using this curriculum? In what ways?"*

The most frequently occurring themes around the reasons for changes in implementation were as follows:

1. Teachers had more experience with the HQIM, were more knowledgeable about its components, and felt more confident using it (n = 64 occurrences).
2. Teachers noted that they were using different instructional practices than previously used, with an emphasis on student ownership and productive struggle (n = 63 occurrences).
3. As teachers had more experience with the curriculum, they were making more adaptations to ensure they were meeting students' needs, including supplementing with self-developed and existing materials (n = 41 occurrences).

4. Teachers felt that they had gotten better at the pacing of lessons. There were a few reasons for this: Teachers had more experience with the HQIM and were more comfortable with it and knowledgeable about it. Students were more experienced with the HQIM and knew what to expect, and teachers were adapting the materials to make the content more accessible (n = 22 occurrences).
5. Students' familiarity and experience with the HQIM contributed to more effective implementation over time (n = 10 occurrences).
6. Students' increased engagement with the HQIM contributed to more efficient implementation over time (n = 9 occurrences).

The Evaluation Team also analyzed responses where teachers reported no change in implementation over time. Most responses did not give a reason why there were no changes in implementation over the year. The top three reasons cited for no changes in implementation were the following:

1. Teachers didn't have enough experience with the HQIM and were still not comfortable using it (n = 10 occurrences).
2. Teachers reported that the reason implementation had not changed was that they perceived the HQIM content to be too challenging and/or unengaging for their students (n = 5 occurrences).
3. Teachers felt that the curriculum continued to be overwhelming with too much material for both teachers and students to wade through (n = 5 occurrences).

The above reasons for not seeing change contrast with the ones reported for why teachers reported change in their implementation. This indicates that **increased teacher experience over time and familiarity with the HQIM was a driver for building teacher confidence** with using the curriculum in the classroom, which equipped them to adapt the curriculum to meet their classroom's needs. Additionally, students' increased familiarity with the routines of the curriculum might have increased student engagement thereby allowing teachers to become better with the pacing of the lessons with less scaffolding needed over time. This in turn would allow teachers to feel less overwhelmed about having too much material to cover.

DIGL Team Perspectives

In addition to the teacher survey data, the Evaluation Team gathered the **perspectives of the DIGL team regarding HQIM implementation and changes over time** through a survey

(LRQ1a). The DIGL members responded to the following open-ended survey item: *"What are the perceptions of DIGL team members and teachers regarding the association between components of HQIM implementation and these changes?"* There were 17 segments in the open-ended responses of the DIGL survey that were coded as references to "changes over time." Nearly all responses were positive, with three responses being ambiguous about whether change was positive. Among these segments, some themes were identified:

1. The most frequently cited factor in positive change was **coaching and support** from the ICs. For example, a responded noted that "Without the support of the HQIM grant over the past two school years we would not have seen the success and buy-in that we have accomplished. Our grant consultant and [coach name] elevated and supported our entire implementation process. We learned a ton together and grew as a collaborative teaching team in the process."
2. Some responses noted that the **use of continuous improvement supports**, namely the use of data, purposeful partial rollouts, and feedback loops, such as learning walks, contributed to positive change.
3. Some responses, while reporting positive change in the past year, noted that **incorporating additional structures and supports would help continue the success**, and implied that, without these supports, implementation would not be fully effective. The needed supports included common planning time, greater leadership involvement, and, in multiple examples, more attention to increasing access to the HQIM for high-needs students.
4. A handful of responses noted that the **work of implementation was difficult, but this difficulty did not prevent success**. For example, a coach response stated that, "although this implementation has been a heavy lift for teachers, they are seeing the benefits. The teachers in my building are starting to have a mind-shift from, 'this is too difficult for my students' to 'my students are interested in the topics and have so much knowledge to share'." This suggests that districts that undertake HQIM implementation projects should not be deterred by the challenges they may encounter because they can still be successful over time.

Closing Remarks

- The DIGL and teacher perspectives suggest that HQIM requires a heavy lift for teachers, and supports, such as coaching and PL, can help prepare and support

teachers in implementing the HQIM. This finding is in line with the teacher survey quantitative analysis, which documented that the variance at the teacher level far exceeded that at the district level, thereby indicating the substantial role of the teacher in HQIM implementation. This finding suggests that supports and structures for implementation that are focused on classroom instruction (e.g., opportunities to observe peers teach) need to be strengthened to see positive changes toward HQIM implementation.

- Additionally, the team would like to reiterate that there needs to be a concerted effort by both districts and schools to ensure that HQIM implementation takes into account the needs of multilingual learners. These supports might be present in the HQIMs in some capacity and could be underutilized or the HQIM might have inadequate supports to meet the needs of multilingual learners in Massachusetts. In either case, there needs to be targeted and continuous supports embedded into the school day (e.g., common planning time, meeting with coaches and instructional specialists) for teachers to be able to adequately promote the learning of EL learners. These supports should ensure that teachers feel equipped to advance the learning of ELs and don't negatively perceive the capabilities of EL students with HQIM.

Discussion and Recommendations

The Evaluation Team builds from key themes in the report and to highlight implications for future strategy and action.

Recommendation 1: Implementation plans should focus on providing the time and supports needed for "internalization" of the HQIM by teachers.

- Longitudinal analyses on key outcomes- teacher satisfaction, perspectives on equity, high expectations for students, and teacher beliefs about student capabilities- found that time was a statistically significant factor that contributed to positive changes. These findings underscore the benefits of providing educators with continual opportunities to build their understanding of the HQIM over time. Additionally, investment in time should feature as an essential feature of district plans for the effective implementation of new curriculum. Several teacher accounts described a clear difference in their experiences in their first year of a new HQIM and subsequent years. These accounts often portrayed the first year as difficult and slow and the following years as on-track and marked by deeper understanding of the curriculum, with the implication that they needed time to internalize all the facets of the new HQIM.
- Stakeholders involved in HQIM implementation described a goal of helping teachers to "internalize" the HQIM. Internalization entailed educators becoming proficient with the HQIM, experienced at anticipating student challenges and making adaptations that increased student access to the rigorous content of the HQIM. Findings from the evaluation point to a set of factors that serve as accelerants of internalization because they were associated with stronger teacher outcomes related to the HQIM and its implementation. These factors should serve as keystones to implementation plans and included:
    - The involvement of leadership (explored further in Recommendation 2).
    - Access to coaching and professional development that is job-embedded and specific to the HQIM.
    - Provide teachers with opportunities to collaborate with peers and coaches to engage in planning and discussions around data specific to the HQIM.
    - Establish processes to support continuous improvement related to HQIM implementation, such as regular collection and review of data aligned to indicators of implementation progress.

Core considerations and Challenges

- It is apparent from teacher responses that progress over time is not linear. Especially initially, HQIM implementation is difficult. Leadership should anticipate this expectation and incorporate it into communication with educators and others.
- Internalization is a goal that is multi-faceted and should take into account the quality of training and support provided to teachers over multiple years, consistent support that allows teachers to make adaptations to the curriculum without reducing the rigor of the HQIM, and emphasis on coaching and collaborative planning time that promote teacher and student learning related to the HQIM.

Recommendation 2: Emphasize the critical leadership roles that made the biggest difference in implementation.

- The direct involvement of school leaders in HQIM implementation was a contributing factor in shaping teachers' attitudes and perspectives. For example, teachers valued seeing their leaders present at HQIM related workshops and PD offerings because it communicated the importance of implementation and built confidence that the administrator understood what was being asked of teachers. Additionally, involvement contributed to the capacity of leaders in supporting core functions, such as understanding the shifts in pedagogy proposed in the HQIM, participating in and being a capable observer in classroom walkthroughs, and in the interpretation and use of data on implementation.
- The evaluation found evidence that supported a specific set of leadership actions that were statistically significant predictors of positive results in key teacher outcomes. These actions can serve as keys to incorporate into future planning for ongoing support of HQIM implementation:
    - Administrator support for CLSP.
    - Two-way communication between administrators and classroom educators.
    - Access to the needed HQIM materials and time in the schedule to teach the HQIM lessons.
    - Access to supports for students currently performing below grade level.
    - Access to workshops specifically related to the HQIM.

Core considerations and challenges

- Leadership plays a key role in setting the conditions for success for HQIM implementation by ensuring that there is adequate instructional time for HQIM

lessons and units in the school schedule, and that teachers have access to all the materials needed.

- Many things rest on leadership involvement and time is a scarce commodity for administrators. The strategic use of the implementation team may help mitigate this limitation by taking steps to create a team that functions well and distributes leadership roles for HQIM implementation across multiple people.

Recommendation 3: Invest in building a common understanding of and commitment to culturally and linguistically sustaining practices.

- Administrator support for CLSP was found to be a statistically significant predictor of positive teacher outcomes. Other findings suggested, among schools and districts in the grant program, there tended to be a lack of or inconsistent focus on culturally and linguistically sustaining practices (CLSP) in professional learning, implementation supports, and classroom instruction. These findings underscore the need for greater understanding and focus on CLSP across levels of the school system and that improvement in this area could result in benefits for teachers involved in HQIM implementation.
- Across multiple data sources, teachers raised concerns for the lack of supports available to promote the learning of English learners. This in turn negatively impacted key outcomes of interest such as teacher satisfaction and teacher's beliefs about student capabilities. This challenge was found across districts and points to CLSP as an emergent concept among teachers and school and district leaders, and indicates the importance of developing materials and strategies that explicitly focus on CLSP in the context of HQIM. For example, highlighting and providing support for teachers to adopt instructional practices aligned with CLSP (such as those highlighted in the evaluation vignettes).
- One interpretation of the data, worthy of highlighting here, is that grantee districts tended to adopt a sequential approach during implementation of attending, initially, to establishing broad systems for HQIM implementation with the intention of focusing more on supports for English-learners and students not currently performing at grade-level in subsequent phases of implementation. This approach would reflect the heavy-lift and complexity of systems-level implementation but could also exacerbate existing inequities. The Evaluation Team recommends ensuring increased attention to these vulnerable student populations at all steps of implementation, through strategies such as:

- Ensuring the membership of an EL or SPED teacher leader or director on the implementation team,
- Focusing walk-throughs and data discussions on data related to these student populations, and,
- Developing a communications strategy that centers questions about improving access for these students.

Core considerations and challenges

- Take steps to build a shared understanding of CLSP among school staff, in particular how the implemented HQIM addresses CLSP.
- Ensure that any coaching and PD providers work is aligned with the resources and framework of CLSP espoused by DESE.

Recommendation 4: Maximize the benefits of professional development and collaborative learning opportunities by finetuning their design and focus on the HQIM.

- The presence of professional development (PD) in HQIM implementation was not sufficient to influence teacher attitudes and understanding of the curriculum; the design of the PD mattered. Professional development that was responsive to teacher needs and aligned to the specific HQIM were significantly more likely to lead to improved teacher outcomes.
- To be effective, PD should be situated in a broader system that supports professional learning through providing teachers with opportunities for collaboration with their peers who are involved in HQIM implementation and with job-embedded coaching.

Core considerations and challenges

- High-quality PD and coaching should be accompanied with a plan that ensures that it is accessed by all teachers involved in HQIM implementation.
- Creating and protecting teacher and administrator time for PD and professional learning is essential. Teachers need support and systems to ensure that collaboration time is organized with clear goals and intended outcomes.

Recommendation 5: Recommendations for DESE to sustain the successes of the initiative and to translate the observed benefits for teachers into changes for students.

- The grant program was built on a theory of change and included supports and prescribed activities for grantees that emphasized a systems-level, leadership-focused approach to HQIM implementation. At the highest level of summary, the evaluation findings provide some evidence that confirms that, given time and the use of this model: (1) grantee districts were able to advance HQIM adoption through this model and (2) that the model, as implemented, was associated with positive changes in teacher attitudes and perspectives on the HQIM as well as its influence on their instruction.
- The model of implementation of HQIM was able to be converted into actionable steps by school and district leaders, attesting to its practical applicable. Although the progress of implementation (based on FOI ratings) was found to be greater in some components than others, districts demonstrated progress in multiple FOI components, signifying that the model was a useful frame for addressing the complex challenges of systems-level adoption of HQIM. With the end of the substantial resources provided by the grant program, the state might be able to position these leaders to continue to learn together and from one another through an HQIM implementation community of practice or through sharing this evaluation report with Massachusetts professional associations that work with these leaders, as low-cost strategies that would help leaders retain and continue to develop their understanding of HQIM implementation.
- A crucial question that could not be explored in the evaluation is “do positive changes in teacher attitudes and perspectives towards HQIM implementation relate to changes in student achievement?” The Evaluation Team knows that this is the ultimate focus and concern of DESE and encourages the state to pursue this goal. The district-level FOI ratings provide a baseline variable that could be tested in a future model that includes student achievement outcomes.

Considerations and challenges

- There were notable caveats to this overall theme of success through the initiative, which point to areas for ongoing development and anticipated areas of support. (1) Grantees frequently indicated that implementation was “a work-in-progress" and that schools and districts had not firmly established capacities for consistent, high-quality implementation at the period of the grant’s end. Therefore, sustainability is a major question, in particular, the question of whether or not districts are able to sustain their trajectories of expanding and improving adoption without the supports that came with the grant. (2) As noted elsewhere, teachers and administrators

identified the need for more supports to ensure equitable access to the HQIM for students who are English learners and students who are not currently performing at grade-level. Providing guidance in this area is an immediate need of districts and could be a crucial lever for sustaining their observed progress.

- Inequities commonly found in education outcomes were identified as factors in this initiative, underscoring that HQIM implementation is negatively impact by these systemic factors. For example, districts that were urban or rural had lower ratings across FOI components than districts that were suburban. In future state-level initiatives, additional resources or considerations may be needed to ensure equitable outcomes by districts that have been traditionally under-resourced or with student populations that have traditionally been marginalized. The state may also focus future initiatives or research on targeted support to test approaches that support HQIM implementation in these settings.

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