Measuring Data Use for Instructional Improvement: Development and Initial Testing of a Teacher Survey and Instructional Team Meeting Log

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Measuring Data Use for Instructional Improvement

A rich literature of theory, case study, and qualitative analysis supports the use of data in schools to support improved teaching and learning. When poorly executed, data-driven decision making in schools can reinforce harmful accountability mindsets (Garner et al., 2017). When done well, however, professional collaborations around data can support sustained changes in instruction that engage students in intellectually rich practices rather than the narrow range of skills measured by standardized tests (Horn et al., 2015). Instructional improvement programs focused on collaborative data inquiry ideally do not limit data to standardized test scores and avoid shortcuts taken in response to accountability pressures. In the strongest of these programs, teachers and instructional experts apply an analysis process relying on multiple forms of complex data, such as test scores, student work, and measures of instructional quality to improve teaching and learning (Ikemoto & Marsh, 2007). Collaborative data inquiry may provide teachers an opportunity to use data in a way that reduces the negative pressures of accountability (Mandinach et al., 2006; Marsh et al., 2006).

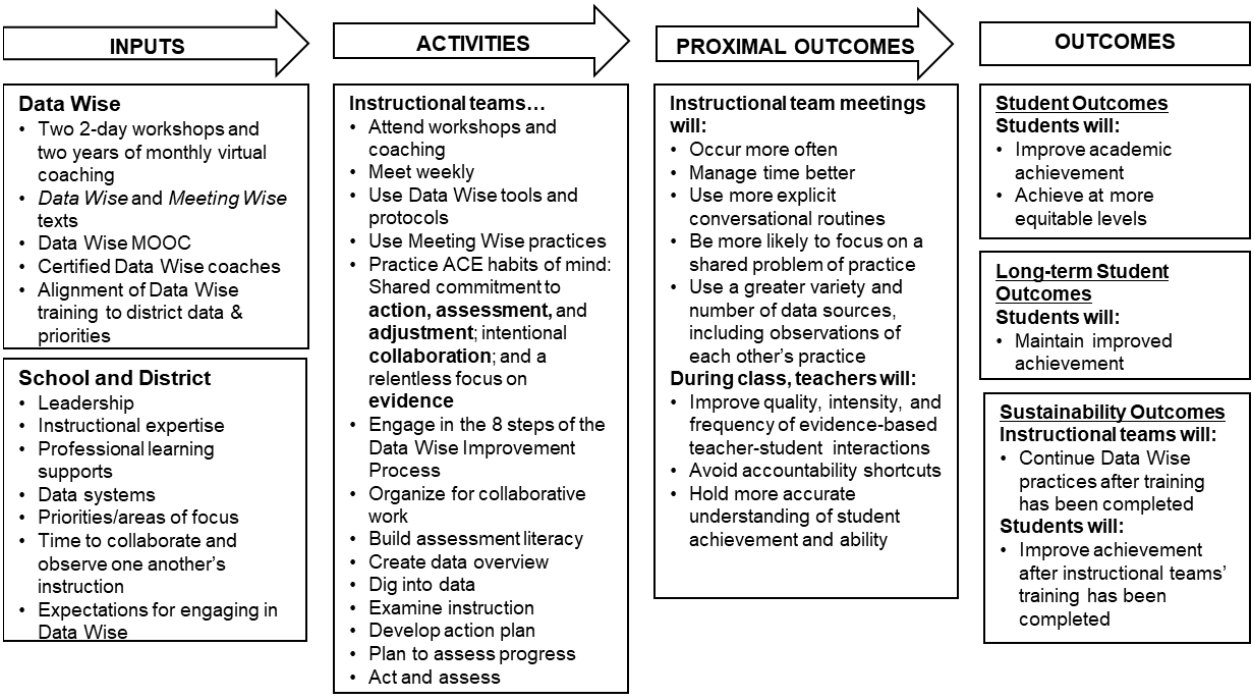
Instead of using data to direct resources toward students "on the bubble" or to improve test scores through test preparation, teachers engaged in professional learning communities focused on data inquiry have been found to focus on data inquiry, use data to identify gaps in student knowledge and skills, and provide rigorous instruction to increase student learning (Datnow & Park, 2014; Garner et al., 2017). Teachers' and school leaders' intentional use of student data can improve lessons, assignments, and the selection of instructional materials based on evidence of what students did and did not learn (Hamilton et al., 2007; Stecker et al., 2008). Through collaborative discussions about student work and assessment data, teachers can shift their instructional practices and adopt new instructional strategies (Bernhardt, 2009; Cosner, 2011). In some cases, data-inquiry frameworks can unite school leaders, instructional experts, and teachers in improving teaching practice in ways that improve student learning outcomes (Marsh et al., 2006).

Data Wise is a structured (but flexible) continuous improvement framework focused on collaborative data inquiry. It supports instructional teams to identify shared problems of practice and collaborate around multiple sources of data to pursue evidence-based solutions (Boudett et al., 2013). Data Wise's protocols are designed to develop collaboration, reduce obstacles to organizational change, and drive meaningful changes in instructional practice without relying on shortcuts like teaching to the test. This report describes the development and testing of two instruments SRI developed for the *Initial Efficacy Study of Data Wise* (IES grant R305A200292 to SRI), an effort to investigate whether the Data Wise process supports instructional improvement and better outcomes for students and teachers.

The Data Wise efficacy study was designed to provide evidence of the implementation, impacts, costs, and sustainability of Data Wise (see Exhibit 1 for the logic model). Unfortunately, the

disruptions of the COVID-19 pandemic made it difficult to recruit schools for the study. The project was redesigned in 2023 as a measurement study focused on developing valid measures for practitioners to use to support school-based teams engaged in collaborative data inquiry.

Exhibit 1. Data Wise Efficacy Study Logic Model



Data Wise has four core components: (1) protected meeting time for instructional teams to collaborate; (2) job-embedded tools that lead teams through structured inquiry cycles using multiple forms of data; (3) intensive on-site professional development (PD) that models the structured collaborative inquiry-focused process; and (4) monthly virtual coaching for instructional teams.

This report details the development and initial validation of the Teacher Survey for Collaborative Data Inquiry (TSCDI) and the instructional team Meeting Log for Collaborative Data Inquiry (MLCDI). We designed these instruments to provide information about data inquiry practices and the contrast between the treatment and control conditions. We expect these measures to be useful for researchers who are studying the implementation and impact of teacher PD about data use and changing instructional practice.

SRI used *instructional improvement logic* as a theoretical foundation for the study and to develop the measures (Garner et al., 2017; Horn et al., 2015). With instructional improvement logic, educators use multiple sources of data to inform instructional changes and develop deeper pedagogical skill. Adherents to instructional improvement tend to attribute "poor performance to flaws in instruction rather than flaws in students" (Garner et al., 2017, p. 409).

Teacher Survey for Collaborative Data Inquiry

In the TSCDI (see Appendix A for final version), instructional team members are directed to detail various activities or initiatives they have engaged in. The survey items are designed to capture the difference between the services and resources provided to and received by the intervention and comparison conditions to provide a measure of treatment contrast. This survey also includes items designed to assess if teachers' data practices are aimed at increasing test scores without making meaningful changes to instructional practice. We wrote survey items using general descriptive language (e.g., "Have you received any training or professional development in how to examine student work to identify student misunderstandings or misconceptions?") to capture practices comparable to the Data Wise process in the comparison group.

The TSCDI is comprised of items adapted from existing measures of teacher practice and original items. The nine sections of the teacher survey address distinct aspects of instructional team meetings. Exhibit 2 describes the sections, their purposes, and the source material of the items.

Exhibit 2. TSCDI Sections, Item Numbers, Topics, and Sources

Section	Item/Topic	Sources
Professional Experience	1–4. Teachers' teaching experience and their role at their current school	Original
Professional Learning Experiences	5–6. Hours of professional learning	Original
	7. Extent to which PD in the past year focused on elements such as leading effective meetings, understanding assessments, and differentiating instruction	Data Wise (Boudett et al., 2013)
	8. Relevance of the PD received in the past year to one's teaching and to the goals and policies of one's school and district	
	9. Participation in specific PD opportunities designed to support use of data to improve student outcomes *(not analyzed as a subscale)*	
Meeting Focus	10. Topics addressed during instructional team meetings, including learning for academic subjects, displaying and interpreting data, equity and diversity, classroom management, and coordinating with support services	Original
	11. Extent to which meetings in the past year had characteristics recommended by Data Wise, such as stating clear objectives, being prepared, and including everyone necessary	

Section	Item/Topic	Sources
Meeting Norms and Structures	12. Frequency with which meeting participants felt engaged and comfortable in voicing their thoughts 13. Extent to which meeting participants supported and respected one another 14. Frequency with which meetings provided useful learning and clear next steps	Original Data Wise (Boudett et al., 2013)
Focus on Working with Data	15. Frequency with which meetings featured insightful discussions about student data 16. Frequency with which meetings focused on state accountability standards and assessments (sensitivity to accountability pressures)	Original Data Wise (Boudett et al., 2013)
Data-Driven Decision Making	17. Extent to which teachers felt proficient using data for understanding and working with students	(Dunn et al., 2013)
Beliefs about Teaching	18. Extent to which teachers felt that they could motivate students, help students value learning, and maintain consistent student expectations 19. Extent to which teachers recognized student progress and provided choices of activities	Classroom and School Context (CSC) teacher self-efficacy scale (Friedman & Kass, 2002)
Equity Mindset	20. Extent to which teachers approached instruction with an equity mindset (adapting instruction to student needs, using multiple assessments, teaching to student interests, offering learning resources, and promoting inclusion)	(Boudett et al., 2013) Original
Teacher Background	21. Degrees and certification 22. Race/ethnicity 23. Gender identity	Original

TSCDI Expert Review

We received feedback on the monthly meeting log and annual teacher survey from experts at Koru Strategy Group, Harvard Graduate School of Education, and several internal experts at SRI in the areas of elementary instruction, English learners, math instruction, equity in STEM, data use, and students with disabilities.

The strongest finding from the instructional expert review was that the meeting log's original volume of Likert scale items—capturing meeting focus, meeting reflections, and working with data (including perceived accountability pressures)—was problematic. These items made the instrument too long and resulted in excessive data burden. The review team was also concerned that the log overlapped the survey too much, and that if only one person were to fill out the log, it would fail to capture important variation within the team. It might be, for example, that the most confident or enthusiastic person in the room would tend to be the one to fill out the log. This individual might also be more likely to rate all meetings as collaborative and report feeling less accountability pressure. Our response to this concern was to focus nearly all Likert scale

items on the teacher survey and rephrase the (now-survey) questions to ask about meetings over the course of the year.

TSCDI Pilot Testing

We tested the teacher survey in fall and winter 2020 with five cognitive interviews and a pilot administration with 15 respondents. We revised the survey following the interviews and the analysis of the survey results.

We began recruiting for the pilot of the new instruments in October 2020. The goal was to find respondents from a range of use cases to test the instruments. Project partners reached out to their contacts within the Data Wise network with an invitation to participate in the pilot to help refine and improve the instruments before the full study. Those who expressed interest after this initial query had the opportunity to participate in a 1-hour think-aloud cognitive interview (talking through their thoughts and experiences filling out the survey) while completing the teacher survey.

Five cognitive interviews were completed on the teacher survey via videoconference between October and December of 2020. We recorded and transcribed the interviews. The respondents included one principal and four teachers (two grade 5, one high school science, one special education). All interview respondents received a $30 gift card.

In spring 2021, we piloted the teacher survey with two groups of grade 5 teachers. The groups (N = 15) included three who had engaged in the Data Wise process and 12 who had not.

TSCDI Pilot Analyses

We created frequency tables that displayed the percentage of respondents who selected each response option for each subitem on the survey for the full sample and separately by Data Wise experience group (yes or no). Then, we calculated means and standard deviations for all items containing subitems intended to function as scales. Finally, we conducted exploratory factor analysis with the survey data using the principal components method with orthogonal rotation for uncorrelated factors. See Appendix B for tables.

TSCDI Pilot Results

Overall, the survey functioned well for its intended purpose and captured adequate contrast between Data Wise and non-Data Wise teachers. The Data Wise and non-Data Wise teachers had similar teaching backgrounds, with about 5 years of experience in their current schools and an average of 11 years of overall teaching experience. Data Wise teachers reported a higher number of hours of PD focusing on data use (35.3 vs. 26.3 hours). As would be expected of teachers who had experienced Data Wise, Data Wise teachers reported greater frequency of exposure to PD focused on specific aspects of working with data, such as understanding which skills or knowledge assessments measure, choosing or creating assessments to measure student

progress, and setting student learning goals. All the Data Wise teachers reported that the PD they received was "mostly" or "highly" relevant to their teaching practice and to their school, district, and state policy and goals, compared with 17% to 50% of non-Data Wise teachers.

Data Wise teachers tended to cluster in the top two categories of the scale on impact items, while non-Data Wise teachers' responses spread across the entire set of response options. This distribution of responses suggests that our questions are well aligned to the expected programmatic impacts and the scales will be sensitive to change.

Data Wise teachers were more likely to report that most or almost all their meetings focused on interpreting or making meaning from data, the needs of an individual student, or coordination with support services. They were also more likely to report focusing on classroom management. All the Data Wise teachers reported positive reflections on most or almost all their meetings, including:

- Being clear on the meeting objectives, having enough time to meet the objectives, addressing important objectives, and the inclusion of all necessary staff in the meetings (compared with 42% to 67% of non-Data Wise teachers).
- Feeling supported, engaged, and able to contribute to meetings (compared with 42% to 67% of non-Data Wise teachers).
- Making meaningful connections to prior meetings and reviewing progress and next steps (compared with 33% to 58% of non-Data Wise teachers).

All the Data Wise teachers also reported working with data in most or almost all their meetings, including gaining useful insights into their practice and student learning needs, using factual observations before interpreting the data, and thoroughly understanding the data before discussing actions (compared with 25% to 50% of non-Data Wise teachers). All the Data Wise teachers felt "generally" or "highly" proficient in using data in a variety of ways, including adjusting how they engage students in class, differentiating instruction, creating data displays, and measuring whether a new instructional practice improved student learning (compared with 50% to 58% of non-Data Wise teachers). The most commonly reported barriers to Data Wise work were lack of data access and poor data quality.

Exhibit 3 displays means, standard deviations, and internal consistency reliability alphas for survey items with related subitems. Generally, internal consistency reliability was high except for the final item about approaching instruction with an equity mindset. Additionally, the eigenvalues for each of these items were high, indicating that they each function well as scales. Although two of the items (frequency with which meetings provided useful learning, and clear next steps) produced two factors with eigenvalues over 1, in both cases the second factor had a substantially lower eigenvalue and few items with high loadings. Therefore, we will use each of these items/subitems as a single scale.

Exhibit 3. TSCDI Item Means, Standard Deviations, Internal Reliability Coefficient Alphas, and Factor 1 Eigenvalues, N = 15

Item	Mean	*SD*	Cronbach's α	Factor 1 Eigenvalue
7	2.70	0.92	0.93	6.82
8	3.25	0.97	0.91	2.93
10	2.69	0.81	0.86	4.46
11	3.59	0.92	0.91	5.53
12	3.70	1.03	0.92	4.04
13	4.84	1.42	0.95	2.64
14	3.22	0.97	0.88	4.19
15	3.26	1.12	0.96	7.17
16	3.03	1.05	0.85	3.01
17	3.79	0.58	0.88	5.52
18	4.31	0.43	0.81	4.74
19	4.17	0.61	0.59	1.54
20	*5.77*	*0.24*	*0.63*	*2.21*

Note: All items/subitems used a 5-point response scale except for 20, which used a 6-point scale.

TSCDI Revisions

We established construct validity, face/content validity, and feasibility through discussions with grade 5 mathematics teachers during our qualitative pilot of the instrument in 2020. Respondents confirmed that the items accurately and completely reflected the intended constructs and that the survey was feasible to complete in the estimated time allotted.

Based on the cognitive interview responses, we revised the response options for items that did not have a "no" or "none" option. For example, the teacher survey had an item about meeting topics with response options ranging from "Hardly any meetings" to "Almost all meetings," but it did not have an option to select "No meetings." On this and similar items, we revised the lowest category of the scale from "Hardly any meetings" to "No or hardly any meetings." Likewise, we revised the lowest option in an item about teaching beliefs from "Almost never true" to "Never or almost never true."

The survey item that asks about other teacher PD on data use was originally oriented specifically to the options available to teachers in the districts where Data Wise was going to be studied. For example, one option for PD was "Dufour's Professional Learning Community (PLC) Model." The

revised survey contains more general options, such as "Professional Learning Community (PLC) Model."

Some response options were seldom selected by the 15 pilot study participants and did not cleanly load with the rest of the items in their factor during the factor analysis. We cut these options from the final version of the teacher survey. For example, in an item about meeting topics, we deleted one response option related to parent outreach and one related to administrative tasks. A response option for the item about equity mindset was negatively worded ("Standardized test scores do not provide a full picture of students' true learning needs") and performed poorly in the factor analysis, so it was also removed. See Appendix A for the final teacher survey.

Meeting Log for Collaborative Data Inquiry

The Meeting Log for Collaborative Data Inquiry (MLCDI) was originally designed to be completed by one member of each instructional team (a school leader or an instructional expert) monthly during both study years (see Appendix A for final version). We designed the logs to elicit details about meeting regularity, attendance at meetings, use of explicit conversational routines, focus on shared problems of practice, and the variety and quantity of data sources discussed in meetings. Instructional team logs for the intervention condition contained additional questions specific to the Data Wise process.

MLCDI Development Process

We adapted the meeting log from teacher logs commonly in use at SRI (e.g., Arshan et al., 2019). These existing instruments describe various observable activities occurring during team meetings (e.g., staff members referenced and examined multiple data sources), but do not include a focus on collaboration or productive use of meeting time. We used the Data Wise Rubric, other Data Wise resources such as the Meeting Wise Checklist for running effective meetings, and other PLC meeting activity instruments (e.g., Supovitz & Sirinides, 2018) as the bases for revisions to capture these aspects of collaborative data inquiry. Exhibit 4 contains details about the content of the log and the source materials.

Exhibit 4. Purposes and Sources of MLCDI Content

Section	Item/Topic	Source
Meeting Structures	1, 3–4. **Recency and duration of the most recent meeting** where teams discussed data related to content area instruction 2. Reasons teams **did not meet** 5. Meeting **attendee roles**	(Boudett et al., 2013) (Boudett & City, 2014)

Section	Item/Topic	Source
Use of Data	7. **Primary data use activity** (e.g., reviewing data, understanding assessments, planning data collection) 8. **Nature, variety, and number of data sources**, including observations of one another's practice 9. Extent to which teams consider the **differing perspectives, needs, and assets of student subgroups** (e.g., multilingual learners, students with IEPs or 504 plans) 10. How the team members **act on data** (e.g., grouping strategies, instructional changes, assessment planning, goal setting)	Original, Items 7, 9, 10 (Boudett et al., 2013), Item 8
Content Instruction	11a. Team member **perceptions of the value of insights** gained during the meeting 11b. Team member **perceptions of the impact of the meeting** on instruction	Original

MLCDI Expert Review

The panel of experts from Koru Strategy Group, Harvard Graduate School of Education (HGSE), and SRI determined that the Likert-type items present in initial versions of the log would be duplicative and were better suited to the teacher survey. We moved nearly all Likert scale items to the teacher survey and rephrased the items to ask about meetings over the course of the year.

MLCDI Pilot Testing

SRI tested the MLCDI in fall and winter 2020 with five cognitive interviews and a pilot administration with 24 respondents. We revised the log after the interviews and analysis of the survey results.

Recruitment and Data Collection

SRI began recruiting for the pilot of the meeting log in October 2020 with the help of project partners HGSE and the Koru Strategy Group. We conducted, recorded, and transcribed five cognitive interviews on the instructional team meeting log via videoconference between October and December 2020. The respondents for the instructional team meeting log included a Data Wise coach, a district professional learning director, a special education teacher, a principal, and a grade 5 teacher. In spring 2021, we piloted the instructional team meeting log with two groups of grade 5 teachers (N = 24). The group included 12 teachers who had used Data Wise and 12 who had not. All interview and log respondents received a $30 gift card.

MLCDI Pilot Analyses

For the MLCDI data, we created frequency tables that displayed the percentage of respondents who selected each response option, both for the full sample and separately by Data Wise experience group (yes or no). See Appendix C for tables.

MLCDI Pilot Results

In the MLCDI pilot, a substantial majority of Data Wise and non-Data Wise respondents (82% and 92%, respectively) had discussed data in their most recent meeting (Item 3), which meant that they were asked to respond to all the subsequent log items. Data Wise meetings were, on average, 11 minutes longer than non-Data Wise meetings. Data Wise meetings were more likely to include staff with instructional expertise in working with English learners or special education students. Data Wise teachers were more likely to report that they prepared for the meeting in advance; however, non-Data Wise teachers who did prepare spent more time preparing (69 vs. 41 minutes). Data Wise teachers were more likely than non-Data Wise teachers to discuss sources of data other than standardized tests and course grades, such as quizzes, student projects, classroom observations, student demographics, and attendance.

Pilot respondents indicated that they spoke about a range of data-related topics and data sources in their meetings (Items 8 and 9). Data Wise respondents were more likely to indicate that the data they examined gave them useful insights into student performance and strengths, that discussing data with colleagues was more meaningful than examining data alone, and that they learned something about the math content they discussed in the meeting.

MLCDI Revisions

In the cognitive interviews, respondents indicated that they appreciated the definitions of data that are embedded in the instructions but suggested that the definitions include less evaluative forms of data such as peer observations and student interviews. These were added to the list of suggested possible data sources following the interviews. Another suggestion from the interviews was to broaden the list of team members present at data team meetings, which was deemed especially important for small schools. The team added a “none” option to Items 5, 7, 8, 9, and 10 to reduce the amount of inference needed when analyzing the “check all that apply” items. This revision gave respondents a clearer way to indicate “none” than just leaving the responses unchecked. For the question “Instructional teams act on data in different ways. Did your instructional team use data to take any of the following actions?” we added the response option “Using disaggregated data to address equity/achievement gaps” based on a suggestion from an interview. Finally, some response options were shortened to look less wordy onscreen.

Discussion

The pilot testing of the TSCDI and MLCDI provided valuable insights into the validity and reliability of these instruments. The pilot results indicated that both tools captured relevant constructs related to professional learning, data use, and collaborative instructional practices. These findings highlight several key themes from the work of refining the tools and understanding their utility in broader educational contexts.

The TSCDI demonstrated strong construct and face validity, with clear differentiation between teachers with and without prior Data Wise experience. The exploratory factor analysis supported the alignment of survey items with intended constructs, supporting the instrument's ability to capture teacher perceptions and practices regarding data use and professional development. Similarly, the instructional team meeting log captured key elements of team collaboration and data-focused discussions.

The findings underscore the value of the instruments in identifying differences in professional practices and experiences. For instance, the more frequent and structured use of data by Data Wise teachers—along with their positive perceptions of meeting objectives and engagement—validates the survey's ability to reflect nuanced aspects of professional learning communities. These results also suggest that the Data Wise framework may contribute to higher-quality data use practices and meeting structures, which align with its theoretical goals.

The pilot testing revealed areas where the instruments could be refined to enhance usability and analytical clarity. For example, revisions to the teacher survey's response sets, such as the addition of "no" or "none" options, were critical for accurately capturing the range of participants' experiences. Similarly, the removal of items and response options that did not perform well in factor analysis improved the precision of the instruments while reducing potential respondent burden. The meeting log also benefited from adjustments that clarified response options, particularly for items requiring a "none of these" alternative. These changes will likely improve data quality by minimizing ambiguity in responses.

The pilot results highlight differences between Data Wise and non-Data Wise teachers in their professional learning experiences and instructional practices. Data Wise teachers reported a greater alignment between PD and their teaching practice, more frequent use of data-focused meeting topics, and higher levels of engagement during team meetings. These differences suggest that structured, data-focused PD, as exemplified by the Data Wise framework, may foster stronger collaboration and more effective instructional practices.

The pilot findings provide evidence for the potential scalability of the teacher survey and instructional team meeting log in evaluating PD initiatives. The tools' ability to capture meaningful differences across varied educational contexts supports their use in broader studies of instructional practices and collaboration.

Despite the promising results, the pilot study faced some limitations, including a small sample size and a focus on specific use cases. Future research should involve larger and more diverse samples to confirm the generalizability of these findings. Further testing and iteration are essential to ensure that these tools fulfill their potential to provide actionable insights for educators and researchers aiming to improve collaborative data inquiry in schools.

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Appendix A. Teacher Survey for Collaborative Data Inquiry and Meeting Log for Collaborative Data Inquiry

Teacher Survey for Collaborative Data Inquiry Professional Experience

1. Which option below best describes your ***primary*** professional role within your school? (check one)
   - ❑ Classroom teacher
   - ❑ Special education teacher
   - ❑ English learner teacher
   - ❑ Instructional coach
   - ❑ Teacher on special assignment (TOSA)
   - ❑ Other non-teaching professional (e.g., Counselor, Librarian, Social Worker)
   - ❑ Administrator (e.g., assistant principal, principal, dean of students, etc.)
   - ❑ Other: _____

2. Which, if any, subjects do you teach at your current school? (check all that apply)
   - ❑ Math
   - ❑ English/Language Arts
   - ❑ Science
   - ❑ Social Studies
   - ❑ Foreign Language
   - ❑ Art/Music
   - ❑ Physical Education/Health
   - ❑ Career/Vocation
   - ❑ Other (please specify): _____
   - ❑ None of the above; my role does not include classroom instruction

3. How many years have you worked at your current school? [*fill in the blank, data validation for integers 1 and greater only*]

4. How many years have you worked in schools overall? [*fill in the blank, data validation for integers 1 and greater only*]

Teacher Professional Development

We're interested in learning about your experiences with professional development or professional learning during the past school year.

5. Approximately how many hours of professional development or professional learning **on any topic** did you participate in during the 2022-23 school year? (The average school

year is 36-38 weeks long, if this is helpful with estimating your annual professional development hours from a weekly number.) *[fill in the blank, data validation for integers 0 and greater only]*

6. Approximately how many hours of professional development or professional learning **focused on using data to improve student outcomes** did you participate in during the 2022-23 school year? *[fill in the blank, data validation for integers 0 and greater only]*

7. Across your professional development or professional learning experiences during the 2022-23 school year, how much of a focus were each of the following elements?

	Not a focus (1)	A minor focus (2)	A moderate focus (3)	Strong focus (4)	Very strong or exclusive focus (5)
Leading effective team or staff meetings					
Understanding which skills or knowledge our assessments measure					
Understanding assessment results or reports					
Choosing or creating assessments to measure student progress					
Differentiating instruction by students' proficiency levels or learning needs					
Understanding student learning by looking at student work, assessments, etc.					
Disaggregating data by student subgroups (such as by gender, race/ethnicity, multilingual learners)					
Observing fellow teachers' instruction					
Setting student learning goals					
Planning to revisit and reteach past content/skills					
Learning new instructional strategies					

8. How relevant was the professional development you received during the 2022-23 school year to the following?

	Not at all relevant (1)	Slightly relevant (2)	Somewhat relevant (3)	Mostly relevant (4)	Highly relevant (5)
My teaching practice					
My school's policies and goals					
My district's policies and goals					

9. Which, if any, program(s) related to the use of data to improve student outcomes did you participate in during the XXXX-XX school year? (mark all that apply)

   - ❑ Master's, doctorate, or another graduate program
   - ❑ Professional Learning Community (PLC) model
   - ❑ Achievement Network (ANET)
   - ❑ Driven by Data: A Practical Guide to Improve Instruction
   - ❑ Data Wise
   - ❑ Instructional Rounds
   - ❑ Another program (please specify): _____
   - ❑ None of the above

Meeting Focus

We'd like to ask about your overall experiences working with your school teams this school year. This kind of work may happen during Professional Learning Community (PLC) meetings, school data days, grade level team meetings, or other time reserved for you to meet with your instructional team.

10. Educators cover a wide range of topics during their meetings. In your meetings overall throughout the school year, how frequently would you say your teams covered the following topics?

	No or hardly any meetings	Occasional meetings	Half of meetings	Most meetings	Almost all meetings
Instruction or student learning for an academic subject					
Creating data displays or preparing data for review					
Interpreting or meaning-making from data					
Equity and diversity in teaching and learning					
Classroom management or student behavior					
The needs of an individual student or students facing a particular challenge					

	No or hardly any meetings	Occasional meetings	Half of meetings	Most meetings	Almost all meetings
Coordination with support staff/services					
Administrative tasks, scheduling, and/or logistics (e.g., block schedules, planning field trips, planning for a school assembly)					

11. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings
I was clear on our meeting objectives at the start of the meeting.					
We had enough time to meet our objectives.					
We shortchanged our objectives to make room for unrelated discussion items. *(reverse-coded)*					
We had all the resources or knowledge we needed to make progress on our objectives.					
Most team members arrived well-prepared.					
Meeting with the team was a good use of my time.					
Our objectives were important for us to discuss together.					
We should have discussed more important topics instead of what we talked about. *(reverse-coded)*					
We included everyone necessary for us to meet our objectives.					
We had people attend who did not need to be there. *(reverse-coded)*					

Your reflections on meetings this school year

We'd like to learn about your overall experience in meetings with your school teams over the past school year.

12. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings
I felt comfortable voicing my thoughts.					
I was fully engaged in the discussion.					
Our meeting had clear expectations or norms.					
Everyone in the meeting contributed to meeting our objectives.					
Our discussion helped us develop a shared understanding of what we need to do as a team.					
When we disagreed, we did so respectfully.					

13. How do you feel about collaborating with your instructional team in the past year?

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
We have a great deal of cooperative effort among staff members.						
We provide strong social support for one another.						
We respect one another's professional competence.						

14. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings
There was a meaningful connection to what we discussed at our last meeting.					

	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings
We reviewed our progress from our last meeting.					
I left the meeting knowing what my next steps were.					
I did something different in my classroom because of our meeting.					
I left the meeting without learning something new. *(reverse-coded)*					
I left feeling frustrated with our lack of progress. *(reverse-coded)*					
We made more progress during our meeting than I would have on my own.					

Data Inquiry Focus

Thanks for sharing your perspectives on your team meetings over the past year. We'd now like to ask you specifically about the work your team did with data over the past year. We use a wide definition of 'data,' including but not limited to: standardized tests, benchmark assessments, student work, exit slips, class and peer observations, disaggregated student data and interviews, and demographic data.

15. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings
We reviewed data to help us achieve our objectives.					
The data we discussed gave me useful insights into **my teaching practice**.					
The data we discussed gave me useful insights into **my students' learning needs**.					
I understood what the data we discussed measured.					
We made factual observations about the data before we interpreted the data.					

	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings
We reviewed disaggregated data of different student subgroups (for example, English learners).					
We thoroughly understood the data we reviewed before discussing what actions to take.					
I did not understand the connection between the data we discussed and our meeting objectives. *(reverse-coded)*					
We used data to better understand the strengths and assets of our students.					
We discussed the biases we may have with interpreting data.					

Student data can have many purposes within a school. We'd like to specifically understand the role end-of-year state standardized tests play in your school and team.

16. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings
Our discussion was influenced by our school's need to meet state accountability standards.					
When we reviewed student data, we mostly reviewed questions similar to those on our state's standardized tests.					
We discussed how to improve our students' test-taking strategies.					
We paid particular attention to reviewing data for students who scored just below "proficient."					
Accountability pressures were not as important as our students' learning needs were. *(reverse-coded)*					

Data-Driven Decision Making

17. How proficient do you feel with using data for the following purposes?

	Not at all proficient	Slightly proficient	Somewhat proficient	Generally proficient	Highly proficient
Refining my instructional approaches					
Gauging student understanding					
Adjusting how I engage students in class					
Differentiating instruction by students' proficiency levels or learning needs					
Analyzing trends in student performance over time					
Matching interventions to students who need them					
Using the data tools/reports provided by my school/district					
Creating my own data displays (such as graphs, charts, tables)					
Observing a fellow teacher					
Providing a fellow teacher with actionable feedback					
Measuring whether a new instructional practice improved student learning					

Beliefs about Teaching

Thanks for sharing your perspectives on your work with data over the past year. We'd now like to ask you about your teaching.

18. With your own students, how much can you do to…

	Nothing	Very little	Some	Quite a bit	A great deal
Motivate students who show low interest in schoolwork					
Implement a variety of assessment strategies					
Get students to *believe* they can do well in schoolwork					
Provide an alternate explanation when students are confused					

	Nothing	Very little	Some	Quite a bit	A great deal
Help students value learning					
Implement a variety of instructional strategies					
Maintain consistent expectations for all students					
Help students believe in their ability to learn and grow					

19. In my classroom:

	Never or almost never true	Usually not true	Occasionally true	Usually true	Almost always true
I make a special effort to recognize students' individual progress, even if they are below grade level.					
During class, I provide several different activities so that students can choose among them.					
I consider how much students have improved when I give them report card grades.					
I give a wide range of assignments matched to students' needs and skill levels.					

Equity Mindset

20. Indicate the extent to which you agree or disagree with the following statements about being a teacher at your school.

	Completely Disagree	Mostly Disagree	Slightly Disagree	Slightly Agree	Mostly Agree	Completely Agree
Students will be successful when instruction is adapted to meet their needs.						
Student learning is best measured using a variety of assessment procedures.						
Using my students' interests when designing instruction						

	Completely Disagree	Mostly Disagree	Slightly Disagree	Slightly Agree	Mostly Agree	Completely Agree
increases their motivation to learn.						
Students' academic achievement will increase when they have access to the learning resources they need to be successful.						
I often promote inclusion and belonging with my behaviors.						

Teacher Background

We'd like to learn a little bit about your background.

21. I identify as: (choose all that apply)
    - ❑ Black or African American
    - ❑ Central Asian
    - ❑ East Asian
    - ❑ Hispanic, Latinx, or Spanish Origin
    - ❑ Indigenous American or Alaska Native
    - ❑ Middle Eastern or Arab
    - ❑ Native Hawaiian or Other Pacific Islander
    - ❑ Southeast Asian or Asian Indian
    - ❑ White or Caucasian
    - ❑ I prefer to self-describe: _____
    - ❑ I prefer not to answer

22. I identify as: (select one that applies to you)
    - ❑ Man
    - ❑ Woman
    - ❑ I prefer to self-describe: _____
    - ❑ I prefer not to answer

Meeting Log for Collaborative Data Inquiry

Directions

We understand that teacher collaboration and data use are daily and ongoing parts of your work. The purpose of this log is not to measure all of that work, but rather to describe what happens during a single professional learning community (PLC) meeting. When answering the log, please respond to questions using *only your experience in the most recent meeting in the past month*. This log can be completed whether the meeting was in-person and/or virtual.

When: We ask that you fill out this log immediately after the instructional team meeting.

Other things to know: When completing the log, we ask you to keep in mind two key definitions:

- *Data*: We use a wide definition of 'data,' including but not limited to standardized tests, benchmark assessments, student work, exit slips, class and peer observations, disaggregated student data and interviews, and demographic data.
- *Discussion*: We use a wide definition of 'discussion' related to data, including but not limited to conducting formal data analyses, interpreting data, planning to collect data (such as planning classroom observations), and planning to take action based on data.

Impact questions, for both treatment & control

Meeting structures

1. Has your instructional team met in the past month? (choose one)
    a. Yes
    b. No

2. [if 1=no] What best describes the reason your instructional team did not meet in the past month? (choose one)
    i. We have regularly scheduled meeting time each month, but we cancelled the most recent meeting (for example, scheduling conflicts, lack of data to analyze, or lack of need to meet).
    ii. We changed our regularly scheduled meeting frequency.
    iii. We do not currently meet monthly as a team.
    iv. Other: _____

    2a. [If 2(i)=yes] Please choose the option that best describes the reason your team was unable to meet: (choose one):

    - School closure (such as a holiday or change to the normal school schedule)
    - One or more team members were unable to complete the work necessary to prepare for this meeting (such as not being able to collect student work samples to analyze)
    - Competing priority for the meeting time slot (e.g., a schoolwide event was scheduled during the meeting time)
    - We were unable to access the data we planned to work with

- Key team members were unavailable at this meeting time (e.g., illness, time off, etc.)
- Team members requested the cancellation due to lack of time
- Other: _____

[Proceed to 2d]

2b. [if 2(ii)=yes] Thank you for letting us know. What is your new meeting frequency for the instructional team to focus on data?

- Frequency (dropdown: weekly, biweekly, monthly, less than monthly)
- Other: _____

[Proceed to 2d]

2c. [if 2(iii)=yes] Please choose the option that best describes the reason your team does not currently meet monthly. (choose one)

- Team members requested canceling our team meetings due to lack of time
- School leader(s) directed us to stop meeting as a team
- We lack the data resources (such as data access) needed for the team meetings to be effective
- We accomplished the goals of our team meetings and no longer need to meet
- We were unable to make progress toward the goals of our team meetings
- We have a new meeting structure or new set of teams
- Other: _____

2d. [If 1=no] We'd still like to learn about your instructional team's recent work together. Has your instructional team held a meeting within the past two months? [

- Yes [if (2d=Yes)—return with Q1 with instructions to fill out about the most recent instructional team meeting]
- No [if (2d=No)—move treatment to Q13, control to Conclusion]

[until otherwise noted, the questions go to teachers whose teams met (1=yes regardless of data focus]

3. [if 1=Yes or if 2d=Yes] During your most recent meeting, did your team discuss data? We use a wide definition of 'data,' including but not limited to standardized tests, benchmark assessments, student work, exit tickets, class observations, disaggregated student data, and demographic data.
   a. Yes
   b. No
4. How long was your most recent meeting in minutes? (Please provide your best estimate.)
   - Open response (integer >0)
5. Which of the following educators were present for most of your most recent meeting? We understand that some educators have multiple roles (e.g., both a grade 4 teacher and an instructional expert for English learners). Check all that apply.
   a. All of the teachers who are part of the instructional team

b. Fewer than all of the teachers who are part of the instructional team *[mutually exclusive with 5a]*
c. Instructional coach
d. Someone with instructional expertise for supporting English learners
e. Someone with instructional expertise for supporting special education students
f. School leader or administrator (principal, assistant principal, dean of curriculum & instruction, or similar)
g. Support services (such as a social worker, school counselor, school psychologist)
h. District support (math leadership, intervention specialist, curriculum specialist, data team support/specialist)
i. Other: _____

6. How many of each the following educators were present for most of your most recent meeting? If educators have multiple roles, please count them only once.

Educator type	Number of educators
Classroom teachers	
Instructional coach(es)	
School leader(s) or administrator(s) (principal, assistant principal, dean of curriculum & instruction, or similar)	
Support services (such as a social worker, school counselor, school psychologist)	
District support (math leadership, intervention specialist, curriculum specialist, data team support/specialist)	

Use of Data

[This entire section completed only by instructional teams that discussed data (3a = yes)]

7. You indicated your instructional team discussed data during your most recent meeting. Which topic best captures how your team spent the most time engaging with data? (choose one)
   - Reviewing past/ongoing data collection
   - Understanding which skills or knowledge our assessments measure
   - Understanding how to read and interpret assessment reports
   - Engaging in new data or content from recent lessons
   - Planning for upcoming data collection
   - Planning to observe one another's classrooms
   - Creating data displays (such as creating tables, charts, or other types of data reports)
   - Planning for instruction based on data
   - Other: _____
   - None

8. Which of the following data sources did your instructional team discuss in your most recent meeting? (choose all that apply)
   a. Standardized test scores (such as benchmark assessments or state standardized test scores)
   b. Other tests (such as a chapter test or unit test)
   c. Quizzes, exit tickets, or other short assessments
   d. Student projects (such as a written paper, science lab, or math project)

e. Routine classwork or homework assignments
f. Observations of instruction our instructional team conducted ourselves
g. Observations of instruction conducted by people not on our instructional team
h. Student demographic characteristics (such as gender, race, or socio-economic status)
i. Student classification for receiving educational supports and services (such as special education or multilingual learner status)
j. Student grades or report cards
k. Student attendance
l. Discipline data or other student behavior data
m. Parental surveys, phone calls, emails, interviews, or other parent data
n. Student interviews and/or self-report surveys
o. Other: _____
p. None

9. Did your instructional team discuss data disaggregated by any of the following student groups? (check all that apply)
   - Multilingual learners
   - Students with IEPs or 504 plans
   - Gender
   - Race and/or ethnicity
   - Students who are above/below grade level
   - Students with a particular proficiency or prior achievement level
   - Students qualifying for free/reduced-price lunch status or other low-income metric
   - Other: _____
   - None
10. Instructional teams act on data in different ways. Did your instructional team use data to take any of the following actions? (check all that apply)
   - Selecting instructional strategies to use
   - Creating a plan for implementing instructional strategies
   - Planning to revisit and reteach past content/skills
   - Adjusting a pacing guide or timeline to change what we teach and when we teach it
   - Grouping students for targeted interventions or differentiated instruction
   - Using disaggregated data to address equity/achievement gaps
   - Choosing or creating assessments to measure student process
   - Setting student learning goals
   - Creating a plan for assessing student learning
   - Adjusting prior plans (such as instructional plans or assessment plans)
   - Other: _____
   - None

Content instruction

Data Use in Instructional Team Meetings

[This optional section can be used to ask about data use for specific content area instruction.]

11a. How strongly do you agree or disagree with the following statements about your most recent meeting?

	Strongly disagree	Disagree	Agree	Strongly agree
The data we examined gave me useful insights into the [content] performance of my students.				
The data we examined gave us useful insights about student strengths in sub-content areas of [content].				
The data we examined gave us useful insights about student weaknesses in sub-content areas of [content].				
Our discussion about the data gave me useful insights into how I teach [content].				
Discussing [content] learning data with colleagues was more meaningful than examining the data on my own.				
I would have preferred to examine the [content] data on my own instead of with my instructional team.				

11b. [Content] instruction

	Strongly disagree	Disagree	Agree	Strongly agree
I learned something about the [content] we discussed.				
I learned something about designing appropriately challenging [content] lessons/activities.				
Our discussion helped my instructional team get on the same page about [content] instruction.				
I plan to make changes in my [content] teaching as a result of things I learned in our most recent meeting.				

Appendix B: Teacher Survey for Collaborative Data Inquiry (TSCDI) Frequencies and Scales

Exhibit B-1. TSCDI descriptives, overall

Professional experience

	Classroom teacher	Special education teacher	Other	Total n
1. Which option below best describes your primary professional role within your school? (check one)	87%	7%	7%	15

	ELA	Social studies	Math	Science	Other subject	Total n
2. Which, if any, subjects do you teach at your current school? (check all that apply)	60%	53%	60%	40%	20%	15

	Mean	SD	Total n
3. How many years have you worked at your current school? [fill in the blank, data validation for integers 1 and greater only]	5.1	5.0	15
4. How many years have you worked in schools overall? [fill in the blank, data validation for integers 1 and greater only]	10.2	7.2	15

Professional Learning Experiences

	Mean	SD	Total n
5. Approximately how many hours of professional development or professional learning on any topic did you participate in during the 2022- 23 school year? (The average school year is 36-38 weeks long, if this is helpful with estimating your annual professional development hours from a weekly number.) [fill in the blank, data validation for integers 0 and greater only]	62.5	36.9	15
6. Approximately how many hours of professional development or professional learning focused on using data to improve student outcomes did you participate in during the 2022-23 school year? [fill in the blank, data validation for integers 0 and greater only]	28.1	31.2	15

7. Across your professional development or professional learning experiences during the 2022-23 school year, how much of a focus were each of the following elements?

	Not a focus (1)	A minor focus (2)	A moderate focus (3)	A strong focus (4)	A very strong or exclusive focus (5)	Total n
Leading effective team or staff meetings	40%	20%	13%	27%	0%	15
Understanding which skills or knowledge our assessments measure	7%	27%	20%	27%	20%	15
Understanding assessment results or reports	13%	13%	7%	47%	20%	15
Choosing or creating assessments to measure student progress	40%	13%	20%	13%	13%	15
Differentiating instruction by students' proficiency levels or learning needs	13%	27%	20%	33%	7%	15
Understanding student learning by looking at student work, assessments, etc.	13%	13%	33%	33%	7%	15
Disaggregating data by student subgroups (such as by gender, race/ethnicity, multilingual learners)	27%	40%	20%	7%	7%	15
Observing fellow teachers' instruction	33%	33%	20%	13%	0%	15

	Not a focus (1)	A minor focus (2)	A moderate focus (3)	A strong focus (4)	A very strong or exclusive focus (5)	Total n
Setting student learning goals	27%	27%	20%	27%	0%	15
Planning to revisit and reteach past content/skills	20%	13%	47%	13%	7%	15
Learning new instructional strategies	20%	27%	27%	20%	7%	15
Using mathematics instructional practices-	20%	20%	40%	13%	7%	15

8. How relevant was the professional development you received during the 2022-23 school year to the following?

	Not at all relevant	Slightly relevant	Somewhat relevant	Mostly relevant	Highly relevant	Total n
My teaching practice	7%	27%	20%	27%	20%	15
My school's policies and goals	0%	20%	20%	47%	13%	15
My district's policies and goals	7%	20%	27%	40%	7%	15
My state's policies and standards	0%	40%	27%	27%	7%	15

9. Which, if any, program(s) related to the use of data to improve student outcomes did you participate in during the 2020-21 school year? (mark all that apply)

	Percent
Master's, doctorate, or another graduate program	0%
Professional Learning Community (PLC) model	0%
Achievement Network (ANET)	9%
Driven by Data: A Practical Guide to Improve Instruction	0%
Data Wise	27%
Instructional Rounds	27%
Another program	0%
None of the above	0%
Total n	11

Meeting Focus

10. Educators cover a wide range of topics during their meetings. In your meetings overall throughout the school year, how frequently would you say your teams covered the following topics?

	No or hardly any meetings	Occasional meetings	Half of meetings	Most meetings	Almost all meetings	Total n
Mathematics instruction and/or student learning in mathematics	27%	33%	20%	13%	7%	15
Instruction or student learning for a subject other than mathematics (such as reading)	20%	33%	13%	27%	7%	15
Creating data displays or preparing data for review	40%	40%	20%	0%	0%	15
Interpreting or making meaning from data	20%	13%	20%	27%	20%	15
Equity and diversity in teaching and learning	27%	33%	20%	13%	7%	15
Parent outreach or other connections to students' home lives	13%	47%	20%	7%	13%	15
Classroom management or student behavior	13%	27%	33%	27%	0%	15
The needs of an individual student or students facing a particular challenge	7%	40%	33%	7%	13%	15
Coordination with support staff/services	13%	33%	13%	20%	20%	15
Administrative tasks, scheduling, and/or logistics (e.g., block schedules, planning field trips, planning for a school assembly)	0%	33%	27%	13%	27%	15

Meeting Reflections

11. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n
I was clear on our meeting objectives at the start of the meeting.	0%	13%	27%	27%	33%	15
We had enough time to meet our objectives.	13%	13%	20%	47%	7%	15
We shortchanged our objectives to make room for unrelated discussion items. *(reverse-coded)*	13%	47%	20%	20%	0%	15
We had all the resources or knowledge we needed to make progress on our objectives.	0%	20%	7%	47%	27%	15
Most team members arrived well-prepared.	7%	13%	20%	40%	20%	15
Meeting with the team was a good use of my time.	13%	20%	13%	33%	20%	15
Our objectives were important for us to discuss together.	7%	20%	7%	27%	40%	15
We should have discussed more important topics instead of what we talked about. *(reverse-coded)*	20%	27%	20%	20%	13%	15
We included everyone necessary for us to meet our objectives.	7%	13%	13%	13%	53%	15
We had people attend who did not need to be there. *(reverse-coded)*	47%	20%	13%	13%	7%	15

12. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n
I felt comfortable voicing my thoughts.	7%	20%	20%	33%	20%	15
I was fully engaged in the discussion.	7%	7%	20%	47%	20%	15
Our meeting had clear expectations or norms.	7%	7%	13%	33%	40%	15
Everyone in the meeting contributed to meeting our objectives.	13%	13%	13%	47%	13%	15
Our discussion helped us develop a shared understanding of what we need to do as a team.	7%	20%	20%	20%	33%	15
When we disagreed, we did so respectfully.	7%	0%	0%	40%	53%	15

13. How do you feel about collaborating with your instructional team in the past year?

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree	Total n
We have a great deal of cooperative effort among staff members.	7%	7%	0%	20%	20%	47%	15
We provide strong social support for one another.	7%	7%	7%	20%	20%	40%	15
We respect one another's professional competence.	7%	0%	0%	20%	20%	53%	15

14. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers

	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n
There was a meaningful connection to what we discussed at our last meeting.	0%	33%	13%	27%	27%	15
We reviewed our progress from our last meeting.	40%	13%	0%	33%	13%	15
I left the meeting knowing what my next steps were.	0%	33%	0%	53%	13%	15
I did something different in my classroom because of our meeting.	7%	40%	27%	20%	7%	15
I left the meeting without learning something new. *(reverse-coded)*	27%	20%	40%	13%	0%	15
I left feeling frustrated with our lack of progress. *(reverse-coded)*	27%	33%	7%	27%	7%	15
We made more progress during our meeting than I would have on my own.	20%	13%	20%	33%	13%	15

Focus on Working with Data

15. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n
We reviewed data to help us achieve our objectives.	20%	7%	33%	27%	13%	15
The data we discussed gave me useful insights into my teaching practice.	13%	13%	33%	27%	13%	15
The data we discussed gave me useful insights into my students' learning needs.	20%	0%	40%	13%	27%	15
I understood what the data we discussed measured.	7%	13%	7%	33%	40%	15
We made factual observations about the data before we interpreted the data.	13%	7%	27%	13%	40%	15
We reviewed disaggregated data of different student subgroups (for example, English learners).	40%	20%	13%	13%	13%	15
We thoroughly understood the data we reviewed before discussing what actions to take.	20%	0%	20%	33%	27%	15
I did not understand the connection between the data we discussed and our meeting objectives. *(reverse-coded)*	60%	27%	7%	0%	7%	15
We used data to better understand the strengths and assets of our students.	13%	7%	27%	27%	27%	15
We discussed the biases we may have with interpreting data.	33%	40%	20%	7%	0%	15

16. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n
Our discussion was influenced by our school's need to meet state accountability standards.	13%	7%	20%	40%	20%	15
When we reviewed student data, we mostly reviewed questions similar to those on our state's standardized tests.	33%	13%	0%	47%	7%	15
We discussed how to improve our students' test-taking strategies.	27%	13%	33%	27%	0%	15
We paid particular attention to reviewing data for students who scored just below "proficient."	20%	20%	20%	33%	7%	15
Accountability pressures were not as important as our students' learning needs were. *(reverse-coded)*	33%	13%	13%	40%	0%	15

Data Driven Decision Making

17. How proficient do you feel with using data for the following purposes?

	Not at all proficient	Slightly proficient	Somewhat proficient	Generally proficient	Highly proficient	Total n
Refining my instructional approaches	0%	7%	13%	67%	13%	15
Gauging student understanding	0%	7%	7%	73%	13%	15
Adjusting how I engage students in class	0%	0%	33%	40%	27%	15
Differentiating instruction by students' proficiency levels or learning needs	0%	7%	27%	53%	13%	15
Analyzing trends in student performance over time	0%	7%	20%	33%	40%	15
Matching interventions to students who need them	0%	7%	20%	60%	13%	15
Using the data tools/reports provided by my school/district	7%	7%	20%	47%	20%	15
Creating my own data displays (such as graphs, charts, tables)	0%	7%	33%	20%	40%	15
Observing a fellow teacher	0%	13%	27%	47%	13%	15
Providing a fellow teacher with actionable feedback	0%	7%	40%	40%	13%	15
Measuring whether a new instructional practice improved student learning	0%	13%	27%	53%	7%	15

Beliefs about Teaching

18. With your own students, how much can you do to…

	Nothing	Very little	Some	Quite a bit	A great deal	Total n
Assist families in helping their children do well in school	0%	0%	33%	40%	27%	15
Craft good questions for students	0%	7%	7%	47%	40%	15
Motivate students who show low interest in schoolwork	0%	0%	7%	47%	47%	15
Implement a variety of assessment strategies	0%	0%	40%	33%	27%	15
Get students to *believe* they can do well in schoolwork	0%	0%	7%	47%	47%	15
Provide an alternate explanation when students are confused	0%	0%	7%	40%	53%	15
Help students value learning	0%	0%	0%	47%	53%	15
Implement a variety of instructional strategies	0%	0%	13%	33%	53%	15
Maintain consistent expectations for all students	0%	0%	13%	47%	40%	15
Help students believe in their ability to learn and grow	0%	0%	0%	33%	67%	15

19. In my classroom:

	Never or almost never true	Usually not true	Occasionally true	Usually true	Almost always true	Total n
I make a special effort to recognize students' individual progress, even if they are below grade level.	0%	0%	0%	7%	93%	15
During class, I provide several different activities so that students can choose among them.	0%	33%	7%	27%	33%	15
I consider how much students have improved when I give them report card grades.	0%	0%	7%	13%	80%	15
I give a wide range of assignments matched to students' needs and skill levels.	0%	33%	7%	47%	13%	15

Equity Mindset

20. Indicate the extent to which you agree or disagree with the following statements about being a teacher at your school.

	Completely Disagree	Mostly Disagree	Slightly Disagree	Slightly Agree	Mostly Agree	Completely Agree	Total n
Students will be successful when instruction is adapted to meet their needs.	0%	0%	0%	0%	40%	60%	15
Student learning is best measured using a variety of assessment procedures.	0%	0%	0%	0%	27%	73%	15
Using my students' interests when designing instruction increases their motivation to learn.	0%	0%	0%	0%	7%	93%	15
Standardized test scores do not provide a full picture of a student's true learning needs.	0%	0%	0%	0%	27%	73%	15
Students' academic achievement will increase when they have access to the learning resources they need to be successful.	0%	0%	0%	0%	13%	87%	15
I often promote inclusion and belonging with my behaviors.	0%	0%	0%	0%	27%	73%	15

Teacher background

	Percent	Total n
21. Do you have a degree (any level) or special certification in mathematics?	33%	15
30. Do you have a degree (any level) or special certification focused on the instruction of English learners?	27%	15
31. Do you have a degree (any level) or special certification in special education?	7%	15

21. I identify as: (choose all that apply)

	Percent
Black or African American	7%
Central Asian	0%
East Asian	20%
Hispanic, Latinx or Spanish Origin	7%
Indigenous American or Alaska Native	7%
Middle Eastern or Arab	0%
Native Hawaiian or Other Pacific Islander	0%
Southeast Asian or Asian Indian	7%
White or Caucasian	67%
Prefer to self-describe	0%
Prefer not to answer	7%
Total n	15

22. I identify as: (select one that applies to you)

	Percent
Man	13%
Woman	87%
Prefer to self-describe	0%
Prefer not to answer	0%
Total n	15

Exhibit B-2. TSCDI pilot descriptives, by Data Wise experience

Professional Experience

	Data Wise				Non-Data Wise			
	Classroom teacher	Special education teacher	Other	Total n	Classroom teacher	Special education teacher	Other	Total n
1. Which option below best describes your primary professional role within your school? (check one)	100%	0%	0%	3	83%	8%	8%	12

	Data Wise						Non-Data Wise					
	ELA	Social studies	Math	Science	Other subject	Total n	ELA	Social studies	Math	Science	Other subject	Total n
2. Which, if any, subjects do you teach at your current school? (check all that apply)	67%	67%	67%	100%	0%	3	58%	50%	58%	25%	25%	12

	Data Wise			Non-Data Wise		
	Mean	SD	Total n	Mean	SD	Total n
3. How many years have you worked at your current school? [fill in the blank, data validation for integers 1 and greater only]	5.3	3.8	3	5	5.4	12
4. How many years have you worked in schools overall? [fill in the blank, data validation for integers 1 and greater only]	12	13.5	3	9.8	5.6	12

Professional Learning

	Data Wise			Non-Data Wise		
	Mean	SD	Total n	Mean	SD	Total n
5. Approximately how many hours of professional development or professional learning on any topic did you participate in during the 2022-23 school year? (The average school year is 36-38 weeks long, if this is helpful with estimating your annual professional development hours from a weekly number.) [fill in the blank, data validation for integers 0 and greater only]	67.3	25.0	3	61.3	40.2	12
6. Approximately how many hours of professional development or professional learning focused on using data to improve student outcomes did you participate in during the 2022-23 school year? [fill in the blank, data validation for integers 0 and greater only]	35.3	12.7	3	26.3	34.5	12

7. Across your professional development or professional learning experiences during the 2022-23 school year, how much of a focus were each of the following elements?

	Data Wise						Non-Data Wise					
	Not a focus (1)	A minor focus (2)	A moderate focus (3)	A strong focus (4)	A very strong or exclusive focus (5)	Total n	Not a focus (1)	A minor focus (2)	A moderate focus (3)	A strong focus (4)	A very strong or exclusive focus (5)	Total n
Leading effective team or staff meetings	0%	0%	33%	67%	0%	3	50%	25%	8%	17%	0%	12
Understanding which skills or knowledge our assessments measure	0%	0%	0%	33%	67%	3	8%	33%	25%	25%	8%	12

	Data Wise						Non-Data Wise					
	Not a focus (1)	A minor focus (2)	A moderate focus (3)	A strong focus (4)	A very strong or exclusive focus (5)	Total n	Not a focus (1)	A minor focus (2)	A moderate focus (3)	A strong focus (4)	A very strong or exclusive focus (5)	Total n
Understanding assessment results or reports	0%	0%	0%	33%	67%	3	17%	17%	8%	50%	8%	12
Choosing or creating assessments to measure student progress	0%	0%	0%	67%	33%	3	50%	17%	25%	0%	8%	12
Differentiating instruction by students' proficiency levels or learning needs	0%	0%	0%	67%	33%	3	17%	33%	25%	25%	0%	12
Understanding student learning by looking at student work, assessments, etc.	0%	0%	0%	67%	33%	3	17%	17%	42%	25%	0%	12
Disaggregating data by student subgroups (such as by gender, race/ethnicity, multilingual learners)	0%	67%	0%	33%	0%	3	33%	33%	25%	0%	8%	12

	Data Wise						Non-Data Wise					
	Not a focus (1)	A minor focus (2)	A moderate focus (3)	A strong focus (4)	A very strong or exclusive focus (5)	Total n	Not a focus (1)	A minor focus (2)	A moderate focus (3)	A strong focus (4)	A very strong or exclusive focus (5)	Total n
Observing fellow teachers' instruction	0%	0%	33%	67%	0%	3	42%	42%	17%	0%	0%	12
Setting student learning goals	0%	0%	0%	100%	0%	3	33%	33%	25%	8%	0%	12
Planning to revisit and reteach past content/skills	0%	0%	100%	0%	0%	3	25%	17%	33%	17%	8%	12
Learning new instructional strategies	0%	0%	33%	67%	0%	3	25%	33%	25%	8%	8%	12
Using mathematics instructional practices	0%	33%	33%	33%	0%	3	25%	17%	42%	8%	8%	12

8. How relevant was the professional development you received during the 2022-23 school year to the following?

	Data Wise						Non-Data Wise					
	Not at all Relevant (1)	Slightly relevant (2)	Somewhat relevant (3)	Mostly relevant (4)	Highly Relevant (5)	Total n	Not at all Relevant (1)	Slightly Relevant (2)	Somewhat Relevant (3)	Mostly Relevant (4)	Highly Relevant (5)	Total n
My teaching practice	0%	0%	0%	33%	67%	3	8%	33%	25%	25%	8%	12
My school's policies and goals	0%	0%	0%	67%	33%	3	0%	25%	25%	42%	8%	12
My district's policies and goals	0%	0%	0%	67%	33%	3	8%	25%	33%	33%	0%	12

My state's policies and standards	0%	0%	0%	67%	33%	3	0%	50%	33%	17%	0%	12

9. Which, if any, program(s) related to the use of data to improve student outcomes did you participate in during the 2020-21 school year? (mark all that apply)

	Data Wise	Non-Data Wise
Master's, doctorate, or another graduate program	0%	0%
Professional Learning Community (PLC) model	0%	0%
Achievement Network (ANET)	0%	13%
Driven by Data: A Practical Guide to Improve Instruction	0%	0%
Data Wise	100%	0%
Instructional Rounds	0%	38%
Another program	0%	
None of the above	0%	
Total n	3	8

Meeting Focus

10. Educators cover a wide range of topics during their meetings. In your meetings overall throughout the school year, how frequently would you say your teams covered the following topics?

	Data Wise						Non-Data Wise					
	No or hardly any meetings	Occasional meetings	Half of meetings	Most meetings	Almost all meetings	Total n	No or hardly any meetings	Occasional meetings	Half of meetings	Most meetings	Almost all meetings	Total n
Mathematics instruction and/or student learning in mathematics	33%	67%	0%	0%	0%	3	25%	25%	25%	17%	8%	12
Instruction or student learning for a subject other than mathematics (such as reading)	0%	33%	0%	67%	0%	3	25%	33%	17%	17%	8%	12
Creating data displays or preparing data for review	0%	33%	67%	0%	0%	3	50%	42%	8%	0%	0%	12
Interpreting or meaning-making from data	0%	0%	33%	0%	67%	3	25%	17%	17%	33%	8%	12
Equity and diversity in teaching and learning	0%	33%	67%	0%	0%	3	33%	33%	8%	17%	8%	12
Parent outreach or other connections to students' home lives	0%	100%	0%	0%	0%	3	17%	33%	25%	8%	17%	12
Classroom management or student behavior	0%	33%	0%	67%	0%	3	17%	25%	42%	17%	0%	12
The needs of an individual student or students facing a particular challenge	0%	33%	0%	0%	67%	3	8%	42%	42%	8%	0%	12
Coordination with support staff/services	0%	33%	0%	0%	67%	3	17%	33%	17%	25%	8%	12

	Data Wise						Non-Data Wise					
	No or hardly any meetings	Occasional meetings	Half of meetings	Most meetings	Almost all meetings	Total n	No or hardly any meetings	Occasional meetings	Half of meetings	Most meetings	Almost all meetings	Total n
Administrative tasks, scheduling, and/or logistics (e.g., block schedules, planning field trips, planning for a school assembly)	0%	33%	0%	0%	67%	3	0%	33%	33%	17%	17%	12

Meeting Reflections

11. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	Data Wise						Non-Data Wise					
	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n
I was clear on our meeting objectives at the start of the meeting.	0%	0%	0%	0%	100%	3	0%	17%	33%	33%	17%	12
We had enough time to meet our objectives.	0%	0%	0%	100%	0%	3	17%	17%	25%	33%	8%	12
We shortchanged our objectives to make room for unrelated discussion items. *(reverse-coded)*	0%	100%	0%	0%	0%	3	17%	33%	25%	25%	0%	12
We had all the resources or knowledge we needed to make progress on our objectives.	0%	0%	0%	0%	100%	3	0%	25%	8%	58%	8%	12
Most team members arrived well-prepared.	0%	0%	0%	67%	33%	3	8%	17%	25%	33%	17%	12
Meeting with the team was a good use of my time.	0%	0%	0%	67%	33%	3	17%	25%	17%	25%	17%	12
Our objectives were important for us to discuss together.	0%	0%	0%	0%	100%	3	8%	25%	8%	33%	25%	12
We should have discussed more important topics instead of what we talked about. *(reverse-coded)*	33%	67%	0%	0%	0%	3	17%	17%	25%	25%	17%	12
We included everyone necessary for us to meet our objectives.	0%	0%	0%	0%	100%	3	8%	17%	17%	17%	42%	12

	Data Wise						Non-Data Wise					
	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n
We had people attend who did not need to be there. *(reverse-coded)*	100%	0%	0%	0%	0%	3	33%	25%	17%	17%	8%	12

12. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	Data Wise						Non-Data Wise					
	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n
I felt comfortable voicing my thoughts.	0%	33%	33%	0%	33%	3	8%	17%	17%	42%	17%	12
I was fully engaged in the discussion.	0%	0%	0%	67%	33%	3	8%	8%	25%	42%	17%	12
Our meeting had clear expectations or norms.	0%	0%	0%	0%	100%	3	8%	8%	17%	42%	25%	12
Everyone in the meeting contributed to our meeting objectives.	0%	0%	0%	67%	33%	3	17%	17%	17%	42%	8%	12
Our discussion helped us develop a shared understanding of what we need to do as a team.	0%	0%	0%	0%	100%	3	8%	25%	25%	25%	17%	12
When we disagreed, we did so respectfully.	0%	0%	0%	67%	33%	3	8%	0%	0%	33%	58%	12

13. How do you feel about collaborating with your instructional team in the past year?

	Data Wise							Non-Data Wise						
	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree	Total n	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree	Total n
We have a great deal of cooperative effort among staff members.	0%	0%	0%	0%	0%	100%	3	8%	8%	0%	25%	25%	33%	12
We provide strong social support for one another.	0%	0%	0%	0%	0%	100%	3	8%	8%	8%	25%	25%	25%	12
We respect one another's professional competence.	0%	0%	0%	0%	0%	100%	3	8%	0%	0%	25%	25%	42%	12

14. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers

	Data Wise						Non-Data Wise					
	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n
There was a meaningful connection to what we discussed at our last meeting.	0%	0%	0%	0%	100%	3	0%	42%	17%	33%	8%	12
We reviewed our progress from our last meeting.	0%	0%	0%	67%	33%	3	50%	17%	0%	25%	8%	12
I left the meeting knowing what my next steps were.	0%	0%	0%	67%	33%	3	0%	42%	0%	50%	8%	12
I did something different in my classroom because of our meeting.	0%	33%	33%	33%	0%	3	8%	42%	25%	17%	8%	12
I left the meeting without learning something new. *(reverse-coded)*	0%	67%	0%	33%	0%	3	33%	8%	50%	8%	0%	12

	Data Wise						Non-Data Wise					
	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n
I left feeling frustrated with our lack of progress. *(reverse-coded)*	33%	67%	0%	0%	0%	3	25%	25%	8%	33%	8%	12
We made more progress during our meeting than I would have on my own.	0%	0%	0%	67%	33%	3	25%	17%	25%	25%	8%	12

Focus on Working with Data

15. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	Data Wise						Non-Data Wise					
	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n
We reviewed data to help us achieve our objectives.	0%	0%	67%	0%	33%	3	25%	8%	25%	33%	8%	12
The data we discussed gave me useful insights into my teaching practice.	0%	0%	0%	67%	33%	3	17%	17%	42%	17%	8%	12
The data we discussed gave me useful insights into my students' learning needs.	0%	0%	0%	67%	33%	3	25%	0%	50%	0%	25%	12
I understood what the data we discussed measured.	0%	0%	0%	0%	100%	3	8%	17%	8%	42%	25%	12
We made factual observations about the data before we interpreted the data.	0%	0%	0%	0%	100%	3	17%	8%	33%	17%	25%	12
We reviewed disaggregated data of different student subgroups (for example, English learners).	33%	33%	0%	0%	33%	3	42%	17%	17%	17%	8%	12
We thoroughly understood the data we reviewed before discussing what actions to take.	0%	0%	0%	0%	100%	3	25%	0%	25%	42%	8%	12
I did not understand the connection between the data we discussed and our meeting objectives. *(reverse-coded)*	100%	0%	0%	0%	0%	3	50%	33%	8%	0%	8%	12

	Data Wise						Non-Data Wise					
	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n
We used data to better understand the strengths and assets of our students.	0%	0%	0%	0%	100%	3	17%	8%	33%	33%	8%	12
We discussed the biases we may have with interpreting data.	0%	33%	67%	0%	0%	3	42%	42%	8%	8%	0%	12

16. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	Data Wise						Non-Data Wise					
	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n	No or hardly any meetings	Occasional meetings	Half of the meetings	Most meetings	Almost all meetings	Total n
Our discussion was influenced by our school's need to meet state accountability standards.	0%	33%	0%	67%	0%	3	17%	0%	25%	33%	25%	12
When we reviewed student data, we mostly reviewed questions similar to those on our state's standardized tests.	33%	0%	0%	67%	0%	3	33%	17%	0%	42%	8%	12
We discussed how to improve our students' test-taking strategies.	33%	0%	67%	0%	0%	3	25%	17%	25%	33%	0%	12
We paid particular attention to reviewing data for students who scored just below "proficient."	0%	33%	0%	67%	0%	3	25%	17%	25%	25%	8%	12
Accountability pressures were not as important as our students' learning	0%	0%	0%	100%	0%	3	42%	17%	17%	25%	0%	12

needs were. *(reverse-coded)*	

Data-Driven Decision Making

17. How proficient do you feel with using data for the following purposes?

	Data Wise						Non-Data Wise					
	Not at all proficient	Slightly proficient	Somewhat proficient	Generally proficient	Highly proficient	Total n	Not at all proficient	Slightly proficient	Somewhat proficient	Generally proficient	Highly proficient	Total n
Refining my instructional approaches	0%	0%	0%	100%	0%	3	0%	8%	17%	58%	17%	12
Gauging student understanding	0%	0%	0%	100%	0%	3	0%	8%	8%	67%	17%	12
Adjusting how I engage students in class	0%	0%	0%	33%	67%	3	0%	0%	42%	42%	17%	12
Differentiating instruction by students' proficiency levels or learning needs	0%	0%	0%	67%	33%	3	0%	8%	33%	50%	8%	12
Analyzing trends in student performance over time	0%	0%	0%	33%	67%	3	0%	8%	25%	33%	33%	12
Matching interventions to students who need them	0%	0%	0%	67%	33%	3	0%	8%	25%	58%	8%	12
Using the data tools/reports provided by my school/district	0%	0%	0%	33%	67%	3	8%	8%	25%	50%	8%	12
Creating my own data displays (such as graphs, charts, tables)	0%	0%	0%	33%	67%	3	0%	8%	42%	17%	33%	12
Observing a fellow teacher	0%	33%	33%	33%	0%	3	0%	8%	25%	50%	17%	12
Providing a fellow teacher with actionable feedback	0%	0%	67%	33%	0%	3	0%	8%	33%	42%	17%	12

	Data Wise						Non-Data Wise					
	Not at all proficient	Slightly proficient	Somewhat proficient	Generally proficient	Highly proficient	Total n	Not at all proficient	Slightly proficient	Somewhat proficient	Generally proficient	Highly proficient	Total n
Measuring whether a new instructional practice improved student learning	0%	0%	0%	100%	0%	3	0%	17%	33%	42%	8%	12

Beliefs about Teaching

18. With your own students, how much can you do to…

	Data Wise						Non-Data Wise					
	Nothing	Very little	Some	Quite a bit	A great deal	Total n	Nothing	Very little	Some	Quite a bit	A great deal	Total n
Assist families in helping their children do well in school	0%	0%	0%	33%	67%	3	0%	0%	42%	42%	17%	12
Craft good questions for students	0%	33%	0%	0%	67%	3	0%	0%	8%	58%	33%	12
Motivate students who show low interest in schoolwork	0%	0%	0%	67%	33%	3	0%	0%	8%	42%	50%	12
Implement a variety of assessment strategies	0%	0%	0%	67%	33%	3	0%	0%	50%	25%	25%	12
Get students to *believe* they can do well in schoolwork	0%	0%	0%	67%	33%	3	0%	0%	8%	42%	50%	12
Provide an alternate explanation when students are confused	0%	0%	0%	67%	33%	3	0%	0%	8%	33%	58%	12
Help students value learning	0%	0%	0%	67%	33%	3	0%	0%	0%	42%	58%	12
Implement a variety of instructional strategies	0%	0%	0%	0%	100%	3	0%	0%	17%	42%	42%	12
Maintain consistent expectations for all students	0%	0%	0%	67%	33%	3	0%	0%	17%	42%	42%	12

Help students believe in their ability to learn and grow	0%	0%	0%	67%	33%	3	0%	0%	0%	25%	75%	12

19. In my classroom:

	Data Wise						Non-Data Wise					
	Never or almost never true	Usually not true	Occasionally true	Usually true	always true	Total n	Never or almost never true	Usually not true	Occasionally true	Usually true	always true	Total n
I make a special effort to recognize students' individual progress, even if they are below grade level.	0%	0%	0%	0%	100%	3	0%	0%	0%	8%	92%	12
During class, I provide several different activities so that students can choose among them.	0%	0%	0%	33%	67%	3	0%	42%	8%	25%	25%	12
I consider how much students have improved when I give them report card grades.	0%	0%	0%	33%	67%	3	0%	0%	8%	8%	83%	12
I give a wide range of assignments matched to students' needs and skill levels.	0%	0%	0%	67%	33%	3	0%	42%	8%	42%	8%	12

Equity Mindset

20. Indicate the extent to which you agree or disagree with the following statements about being a teacher at your school.

	Data Wise							Non-Data Wise						
	Completely Disagree	Mostly Disagree	Slightly Disagree	Slightly Agree	Mostly Agree	Completely Agree	Total n	Completely Disagree	Mostly Disagree	Slightly Disagree	Slightly Agree	Mostly Agree	Completely Agree	Total n
Students will be successful when instruction is adapted to meet their needs.	0%	0%	0%	0%	33%	67%	3	0%	0%	0%	0%	42%	58%	12
Student learning is best measured using a variety of assessment procedures.	0%	0%	0%	0%	0%	100%	3	0%	0%	0%	0%	33%	67%	12
Using my students' interests when designing instruction increases their motivation to learn.	0%	0%	0%	0%	0%	100%	3	0%	0%	0%	0%	8%	92%	12
Standardized test scores do not provide a full picture of a student's true learning needs.	0%	0%	0%	0%	33%	67%	3	0%	0%	0%	0%	25%	75%	12
Students' academic achievement will increase when they have access to the learning resources they need to be successful.	0%	0%	0%	0%	0%	100%	3	0%	0%	0%	0%	17%	83%	12
I often promote inclusion and belonging with my behaviors.	0%	0%	0%	0%	0%	100%	3	0%	0%	0%	0%	33%	67%	12

Teacher background

	Data Wise		Non-Data Wise	
	Percent	Total n	Percent	Total n
29. Do you have a degree (any level) or special certification in mathematics?	0%	3	42%	12
30. Do you have a degree (any level) or special certification focused on the instruction of English learners?	67%	3	17%	12
31. Do you have a degree (any level) or special certification in special education?	0%	3	8%	12

21. I identify as: (choose all that apply)

	Data Wise	Non-Data Wise
Black or African American	0%	8%
Central Asian	0%	0%
East Asian	33%	17%
Hispanic, Latinx or Spanish Origin	0%	8%
Indigenous American or Alaska Native	0%	8%
Middle Eastern or Arab	0%	0%
Native Hawaiian or Other Pacific Islander	0%	0%
Southeast Asian or Asian Indian	0%	8%
White or Caucasian	67%	67%
Prefer to self-describe	0%	0%
Prefer not to answer	33%	0%
Total n	3	12

22. I identify as: (select one that applies to you)

	Data Wise	Non-Data Wise
Man	33%	8%
Woman	67%	92%
Prefer to self-describe	0%	0%
Prefer not to answer	0%	0%
Total n	3	12

Exhibit B-3. TSCDI pilot, exploratory factor analysis

Q7. Across your professional development or professional learning experiences during the 2022-23 school year, how much of a focus were each of the following elements?

	Factor1	Factor2	Factor3	Uniqueness
Leading effective team or staff meetings	0.47	0.75	0.20	0.17
Understanding which skills or knowledge our assessments measure	0.78	-0.17	-0.53	0.08
Understanding assessment results or reports	0.81	-0.34	-0.37	0.09
Choosing or creating assessments to measure student progress	0.83	0.33	-0.26	0.13
Differentiating instruction by students' proficiency levels or learning needs	0.85	0.08	0.27	0.20
Understanding student learning by looking at student work, assessments, etc.	0.91	-0.16	-0.21	0.10
Disaggregating data by student subgroups (such as by gender, race/ethnicity, multilingual learners)	0.67	-0.02	0.52	0.28
Observing fellow teachers' instruction	0.58	0.44	-0.31	0.37
Setting student learning goals	0.89	0.35	-0.04	0.09
Planning to revisit and reteach past content/skills	0.70	-0.62	0.17	0.10
Learning new instructional strategies	0.74	0.06	0.51	0.18
Using mathematics instructional practices	0.68	-0.43	0.24	0.29

Alpha	0.93
Eigenvalue Factor 1	6.82
Eigenvalue Factor 2	1.74
Eigenvalue Factor 3	1.35

Q8. How relevant was the professional development you received during the 2020-21 school year to the following?

	Factor1	Uniqueness
My teaching practice	0.81	0.35
My school's policies and goals	0.84	0.29
My district's policies and goals	0.90	0.20
My state's policies and standards	0.88	0.23

Alpha	0.91
Eigenvalue Factor 1	2.93

Q10. Educators cover a wide range of topics during their meetings. In your meetings overall throughout the school year, how frequently would you say your teams covered the following topics?

	Factor1	Factor2	Uniqueness
Mathematics instruction and/or student learning in mathematics	0.34	0.32	0.78
Instruction or student learning for a subject other than mathematics (such as reading)	0.75	0.01	0.44
Creating data displays or preparing data for review	0.78	-0.38	0.25
Interpreting or meaning-making from data	0.61	-0.07	0.63
Equity and diversity in teaching and learning	0.49	0.44	0.56
Parent outreach or other connections to students' home lives	0.48	0.76	0.20
Classroom management or student behavior	0.61	-0.26	0.56
The needs of an individual student or students facing a particular challenge	0.88	-0.13	0.20
Coordination with support staff/services	0.92	-0.04	0.15
Administrative tasks, scheduling, and/or logistics (e.g., block schedules, planning field trips, planning for a school assembly)	0.58	-0.09	0.65

Alpha	0.86
Eigenvalue Factor 1	4.46
Eigenvalue Factor 2	1.12

Q11. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	Factor1	Factor2	Uniqueness
I was clear on our meeting objectives at the start of the meeting.	0.84	-0.25	0.24
We had enough time to meet our objectives.	0.44	0.59	0.45
We shortchanged our objectives to make room for unrelated discussion items. *(reverse-coded)*	0.72	-0.32	0.38
We had all the resources or knowledge we needed to make progress on our objectives.	0.85	0.24	0.21
Most team members arrived well-prepared.	0.63	0.65	0.17
Meeting with the team was a good use of my time.	0.91	-0.15	0.15
Our objectives were important for us to discuss together.	0.77	-0.43	0.21
We should have discussed more important topics instead of what we talked about. *(reverse-coded)*	0.81	-0.24	0.29
We included everyone necessary for us to meet our objectives.	0.68	0.51	0.29
We had people attend who did not need to be there. *(reverse-coded)*	0.67	-0.18	0.52

Alpha	0.91
Eigenvalue Factor 1	5.53
Eigenvalue Factor 2	1.55

Q12. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers

	Factor1	Uniqueness
I felt comfortable voicing my thoughts.	0.81	0.34
I was fully engaged in the discussion.	0.91	0.17
Our meeting had clear expectations or norms.	0.73	0.46
Everyone in the meeting contributed to meeting our objectives.	0.84	0.30
Our discussion helped us develop a shared understanding of what we need to do as a team.	0.90	0.20
When we disagreed, we did so respectfully.	0.71	0.49

Alpha	0.92
Eigenvalue Factor 1	4.04

Q13. How do you feel about collaborating with your instructional team in the past year?

	Factor1	Uniqueness
We have a great deal of cooperative effort among staff members.	0.98	0.03
We provide strong social support for one another.	0.87	0.25
We respect one another's professional competence.	0.96	0.08

Alpha	0.95
Eigenvalue Factor 1	2.64

Q14. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	Factor1	Factor2	Uniqueness
There was a meaningful connection to what we discussed at our last meeting.	0.89	-0.06	0.20
We reviewed our progress from our last meeting.	0.86	-0.38	0.12
I left the meeting knowing what my next steps were.	0.86	0.01	0.27
I did something different in my classroom because of our meeting.	0.72	0.58	0.14
I left the meeting without learning something new. *(reverse-coded)*	0.11	0.80	0.34
I left feeling frustrated with our lack of progress. *(reverse-coded)*	0.84	-0.27	0.23
We made more progress during our meeting than I would have on my own.	0.83	0.09	0.30

Alpha	0.88
Eigenvalue Factor 1	4.19
Eigenvalue Factor 2	1.20

Q15. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	Factor1	Uniqueness
We reviewed data to help us achieve our objectives.	0.85	0.28
The data we discussed gave me useful insights into my teaching practice.	0.88	0.22
The data we discussed gave me useful insights into my students' learning needs.	0.95	0.10
I understood what the data we discussed measured.	0.91	0.17
We made factual observations about the data before we interpreted the data.	0.95	0.10
We reviewed disaggregated data of different student subgroups (for example, English learners).	0.64	0.59
We thoroughly understood the data we reviewed before discussing what actions to take.	0.96	0.08
I did not understand the connection between the data we discussed and our meeting objectives. *(reverse- coded)*	0.65	0.57
We used data to better understand the strengths and assets of our students.	0.97	0.07
We discussed the biases we may have with interpreting data.	0.58	0.66

Alpha	0.96
Eigenvalue Factor 1	7.17

Q16. How often were the following statements true of your meetings with colleagues over the past school year? This would include PLC meetings, grade level team meetings, and other meetings with your fellow teachers.

	Factor1	Uniqueness
Our discussion was influenced by our school's need to meet state accountability standards.	0.76	0.43
When we reviewed student data, we mostly reviewed questions similar to those on our state's standardized tests.	0.90	0.19
We discussed how to improve our students' test-taking strategies.	0.92	0.15
We paid particular attention to reviewing data for students who scored just below "proficient."	0.83	0.32
Accountability pressures were not as important as our students' learning needs were. *(reverse-coded)*	0.30	0.91

Alpha	0.85
Eigenvalue Factor 1	3.01

Q17. How proficient do you feel with using data for the following purposes?

	Factor1	Factor2	Factor3	Uniqueness
Refining my instructional approaches	0.95	0.04	-0.03	0.09
Gauging student understanding	0.91	0.03	-0.11	0.17
Adjusting how I engage students in class	0.72	0.32	0.29	0.29
Differentiating instruction by students' proficiency levels or learning needs	0.70	0.38	-0.41	0.20
Analyzing trends in student performance over time	0.73	0.21	0.14	0.40
Matching interventions to students who need them	0.75	-0.05	-0.39	0.28
Using the data tools/reports provided by my school/district	0.24	0.70	-0.24	0.39
Creating my own data displays (such as graphs, charts, tables)	0.59	0.17	0.65	0.20
Observing a fellow teacher	0.49	-0.75	-0.09	0.18
Providing a fellow teacher with actionable feedback	0.77	-0.58	-0.13	0.05
Measuring whether a new instructional practice improved student learning	0.66	-0.19	0.34	0.41

Alpha	0.88
Eigenvalue Factor 1	5.52
Eigenvalue Factor 2	1.75
Eigenvalue Factor 3	1.07

Q18. With your own students, how much can you do to…

	Factor1	Factor2	Uniqueness
Assist families in helping their children do well in school	0.22	0.84	0.25
Craft good questions for students	-0.01	0.31	0.91
Motivate students who show low interest in schoolwork	0.84	-0.17	0.27
Implement a variety of assessment strategies	0.61	0.08	0.62
Get students to believe they can do well in schoolwork	0.91	-0.04	0.17
Provide an alternate explanation when students are confused	0.51	-0.31	0.64
Help students value learning	0.89	-0.14	0.18
Implement a variety of instructional strategies	0.65	0.52	0.30
Maintain consistent expectations for all students	0.89	0.18	0.18

	Factor1	Factor2	Uniqueness
Help students believe in their ability to learn and grow	0.72	-0.37	0.34

Alpha	0.81
Eigenvalue Factor 1	4.74
Eigenvalue Factor 2	1.40

Q19. In my classroom:

	Factor1	Factor2	Uniqueness
I make a special effort to recognize students' individual progress, even if they are below grade level.	-0.14	0.86	0.24
During class, I provide several different activities so that students can choose among them.	0.80	0.47	0.14
I consider how much students have improved when I give them report card grades.	0.38	-0.04	0.86
I give a wide range of assignments, matched to students' needs and skill levels.	0.86	-0.28	0.19

Alpha	0.59
Eigenvalue Factor 1	1.54
Eigenvalue Factor 2	1.03

Q20. Indicate the extent to which you agree or disagree with the following statements about being a teacher at your school.

	Factor1	Factor2	Uniqueness
Students will be successful when instruction is adapted to meet their needs.	0.71	0.57	0.17
Student learning is best measured using a variety of assessment procedures.	0.56	-0.36	0.56
Using my students' interests when designing instruction will increase their motivation to learn.	0.68	-0.44	0.35
Standardized test scores do not provide a full picture of a student's true learning needs	-0.13	0.18	0.95
Students' academic achievement will increase when they have access to the learning resources they need to be successful.	0.87	-0.23	0.19
I often promote inclusion and belonging with my behaviors.	0.41	0.79	0.22

Alpha	0.63

Eigenvalue Factor 1	2.21
Eigenvalue Factor 2	1.35

Q28. Listed below are a number of statements concerning personal attitudes and traits. Read each statement and decide whether the statement is true or false as it pertains to you.

	Factor1	Factor2	Factor3	Factor4
It is sometimes hard for me to go on with my work if I am not encouraged.	0.66	0.32	0.25	0.14
I sometimes feel resentful when I don't get my own way.	0.86	-0.17	-0.10	0.12
On a few occasions, I have given up doing something because I thought too little of my ability.	0.39	0.21	0.68	-0.43
There have been times when I felt like rebelling against people in authority even though I knew they were right.	0.84	0.11	0.02	-0.04
No matter who I'm talking to, I'm always a good listener.	0.33	0.79	0.20	0.24
There have been occasions when I took advantage of someone.	0.57	-0.25	0.34	-0.14
I'm always willing to admit it when I make a mistake.	-0.13	-0.22	0.17	0.91
I sometimes try to get even, rather than forgive and forget.	0.73	-0.28	0.11	0.15
I am always courteous, even to people who are disagreeable.	-0.42	0.68	-0.40	-0.06
I have never been irked when people expressed ideas very different from my own.	-0.56	0.25	0.65	0.20
I am sometimes irritated by people who ask favors of me.	0.63	0.54	-0.34	0.15
I have never deliberately said something that hurt someone's feelings.	-0.82	0.12	0.31	-0.02

Q28. CONTINUED

	Uniqueness
It is sometimes hard for me to go on with my work if I am not encouraged.	0.37
I sometimes feel resentful when I don't get my own way.	0.20
On a few occasions, I have given up doing something because I thought too little of my ability.	0.15
There have been times when I felt like rebelling against people in authority even though I knew they were right.	0.28
No matter who I'm talking to, I'm always a good listener.	0.17
There have been occasions when I took advantage of someone.	0.48
I'm always willing to admit it when I make a mistake.	0.07
I sometimes try to get even, rather than forgive and forget.	0.36
I am always courteous, even to people who are disagreeable.	0.20
I have never been irked when people expressed ideas very different from my own.	0.16
I am sometimes irritated by people who ask favors of me.	0.17
I have never deliberately said something that hurt someone's feelings.	0.21

Alpha	0.78
Eigenvalue Factor 1	4.59
Eigenvalue Factor 2	1.83
Eigenvalue Factor 3	1.54
Eigenvalue Factor 4	1.22

Appendix C: Instructional Team Meeting Log Frequencies

Exhibit C-1. Instructional team meeting log pilot, overall descriptives

Sample

	Percent	Count
Data Wise	50%	12
non-Data Wise	50%	12
Total	100%	24

Meeting structures

1. Has your instructional team met in the past month? (choose one)

	Percent	Count
Yes	96%	22
No	4%	1

n = 23

2. [if 1=no] What best describes the reason your instructional team did not meet in the past month? Choose one

	Percent
i. We have regularly scheduled meeting time each month, but we cancelled the most recent meeting (for example, scheduling conflicts, lack of data to analyze, or lack of need to meet).	0%
ii. We changed our regularly scheduled meeting frequency.	0%
iii. We do not currently meet monthly as a team.	0%
iv. Other	100%

n = 1

[if 1=yes or if 2d=yes]	Percent
3a. During your most recent meeting, did your team discuss data? We use a wide definition of 'data,' including but not limited to standardized tests, benchmark assessments, student work, exit slips, class observations, disaggregated student data, and demographic data.	87%
3b. During your most recent meeting, did your team discuss grade 4 mathematics instruction? We use a wide definition of 'mathematics instruction,' including but not limited to lesson planning of math content, designing math learning activities, improving student engagement during math lessons, or specific instructional practices used during math lessons.	65%

n = 23

[if 3a=yes and 3b=yes]	Percent
3c. During your most recent meeting, did your team discuss data specifically related to math instruction? For example: classroom observations of teachers leading math lessons, math benchmark	93%

n = 15

	Mean	Min	5th percentile	50th percentile	95th percentile	Max	SD	n
4. How long was your most recent meeting in minutes? (Please provide your best estimate.)	65.9	20	45	60	120	150	28.3	23

5. Which of the following educators were present for most of your most recent meeting? We understand that some educators have multiple roles (e.g., both a grade 4 teacher and an instructional expert for English learners). Check all that apply.

	Percent
All of the school's grade 4 math teachers [*mutually exclusive with (b)]*	52%
Some, but not all, of the school's grade 4 math teachers [*mutually exclusive*	4%
Teachers of other grade 4 content areas (e.g., science, ELA)	30%
Teachers of other math grade levels	30%
Mathematics instructional coach, or someone with instructional expertise in grade 4 mathematics instruction	30%
Someone with instructional expertise for supporting English learners	26%
Someone with instructional expertise for supporting special education students	39%
School leader or administrator (principal, assistant principal, dean of curriculum & instruction, or similar)	70%
Support services (such as a social worker, school counselor, school psychologist)	13%
District support (math leadership, intervention specialist, curriculum specialist, data team support/specialist)	17%
Other	4%

n = 23

Use of Data

[This entire section completed only by instructional teams that discussed data (3a = yes)]

7. You indicated your instructional team discussed data during your most recent meeting. Which topic best captures how your team spent the most time engaging with data? (Choose one)

	Percent
Reviewing past/ongoing data collection	15%
Understanding which skills or knowledge our assessments measure	10%
Understanding how to read and interpret assessment reports	0%
Engaging in new data or content from recent lessons	10%
Planning for upcoming data collection	15%
Planning to observe one another's classrooms	5%
Creating data displays (such as creating tables, charts, or other types of data reports)	0%
Planning for instruction based on data	30%
Other	15%
None	0%

$n = 20$

8. Which of the following data sources did your instructional team discuss in your most recent meeting? (Choose all that apply)

	Percent
Standardized test scores (such as benchmark assessments or state standardized test scores)	55%
Other tests (such as a chapter test or unit test)	10%
Quizzes, exit slips, or other short assessments	25%
Student projects (such as a written paper, science lab, or math project)	10%
Routine classwork or homework assignments	15%
Other smaller student work samples (such as students' notes)	0%
Multiple choice items	5%
Open-response items	15%
Observations of instruction our instructional team conducted ourselves	15%
Observations of instruction conducted by people not on our instructional team	5%
Student demographic characteristics (such as gender, race, or socio-economic status)	15%
Student classification for receiving educational supports and services (such as special education or multilingual learner status)	15%
Student grades or report cards	10%
Student attendance	15%
Discipline data or other student behavior data	0%
Parental surveys, phone calls, emails, interviews, or other parent data	0%
Student interviews and/or student self-report surveys	0%
Other	25%

n = 20

9. Did your instructional team discuss data disaggregated by any of the following student groups? (Check all that apply)

	Percent
Multilingual learners	32%
Students with IEPs or 504 plans	37%
Gender	5%
Black or African American students	16%
Latinx students	16%
White students	5%
Another student race or ethnicity	0%
Students who are above/below grade level	53%
Students with a particular proficiency or prior achievement level	37%
Students who have fallen behind on course progress (such as students missing significant assignments, and/ or scoring low on course assessments)	53%
Students qualifying for free/reduced-price lunch status or other low-income metric	0%
Other	16%

n = 19

10. Instructional teams act on data in different ways. Did your instructional team use data to take any of the following actions? (Check all that apply)

	Percent
Selecting instructional strategies to use	30%
Creating a plan for implementing instructional strategies	60%
Planning to revisit and reteach past content/skills	35%
Adjusting a pacing guide or timeline to change what we teach and when we teach it	35%
Grouping students for targeted interventions or differentiated instruction	45%
Using disaggregated data to address equity/achievement gaps	25%
Choosing or creating assessments to measure student process	5%
Setting student learning goals	20%
Creating a plan for assessing student learning	20%
Adjusting prior plans (such as instructional plans or assessment plans)	35%
Other	0%
None	0%

n = 20

Content Instruction

Data Use in Instructional Team Meetings

[This optional section can be used to ask about data use for specific content area instruction.]

11a. How strongly do you agree or disagree with the following statements about your most recent meeting?

	Strongly disagree	Disagree	Agree	Strongly agree	n
The data we examined gave me useful insights into the [content] performance of my students.	0%	27%	60%	13%	15
The data we examined gave us useful insights about student strengths in sub-content areas of [content].	0%	27%	67%	7%	15
The data we examined gave us useful insights about student weaknesses in sub-content areas of [content].	0%	20%	60%	20%	15
Our discussion about the data gave me useful insights into how I teach [content].	7%	40%	40%	13%	15
Discussing [content] learning data with colleagues was more meaningful than examining the data on my own.	0%	20%	47%	33%	15
I would have preferred to examine the [content] data on my own instead of with my instructional team.	27%	47%	27%	0%	15

11b. [Content] instruction

	Strongly disagree	Disagree	Agree	Strongly agree	n
I learned something about the [content] we discussed.	0%	40%	40%	20%	15
I learned something about designing appropriately challenging [content] lessons/activities.	7%	47%	27%	20%	15
Our discussion helped my instructional team get on the same page about [content] instruction.	0%	7%	80%	13%	15
I plan to make changes in my [content] teaching as a result of things I learned in our most recent meeting.	0%	40%	40%	20%	15

n = 52

Exhibit C-2. Instructional team meeting log pilot, descriptives by Data Wise experience

Sample

	Percent	Count
Data Wise	50%	12
non-Data Wise	50%	12
Total	100%	24

Meeting structures

1. Has your instructional team met in the past month?

	Data Wise (n = 11)		Non-Data Wise (n = 12)	
	Percent	Count	Percent	Count
Yes	91%	10	100%	12
No	9%	1	0%	0

2. [if 1=no] What best describes the reason your instructional team did not recently meet? (Choose one)

	Data Wise (n = 1)	Non-Data Wise
i. We have regularly scheduled meeting time each month, but we cancelled the most recent meeting (for example, scheduling conflicts, lack of data to analyze, or lack of need to meet).	0%	N/A
ii. We changed our regularly scheduled meeting frequency.	0%	N/A
iii. We do not currently meet monthly as a team.	0%	N/A
iv. Other	100%	N/A

[if 1=yes or 2d=yes]	Data Wise (n = 11)	Non-Data Wise (n = 12)
3a. During your most recent meeting, did your team discuss data? We use a wide definition of 'data,' including but not limited to standardized tests, benchmark assessments, student work, exit slips, class observations, disaggregated student data, and demographic data.	82%	92%
3b. During your most recent meeting, did your team discuss grade 4 mathematics instruction? We use a wide definition of 'mathematics instruction,' including but not limited to lesson planning of math content, designing math learning activities, improving student engagement during math	55%	75%

[if 1=yes or 2d=yes]	Data Wise (n = 11)	Non-Data Wise (n = 12)
lessons, or specific instructional practices used during math lessons.		

[if 3a=yes and 3b=yes]

	Data Wise (n = 6)	Non-Data Wise (n = 9)
3c. During your most recent meeting, did your team discuss data specifically related to math instruction? For example: classroom observations of teachers leading math lessons, math benchmark assessments, math classwork/homework.	100%	89%

4. How long was your most recent meeting in minutes? (Please provide your best estimate.)

Data Wise							
Mean	Min	5th percentile	50th percentile	95th percentile	Max	SD	n
71.4	45	45	60	120	120	22.8	11

Non-Data Wise							
Mean	Min	5th percentile	50th percentile	95th percentile	Max	SD	n
60.8	20	20	52.5	150	150	32.7	12

5. Which of the following educators were present for most of your most recent meeting? We understand that some educators have multiple roles (e.g. both a grade 4 teacher and an instructional expert for English learners). Check all that apply.

	Data Wise (n = 11)	Non-Data Wise (n = 12)
All of the school's grade 4 math teachers [*mutually exclusive with (b)]*	36%	67%
Some, but not all, of the school's grade 4 math teachers [*mutually exclusive with (a)]*	9%	0%
Teachers of other grade 4 content areas (e.g., science, ELA)	55%	8%
Teachers of other math grade levels	36%	25%
Mathematics instructional coach, or someone with instructional expertise in grade 4 mathematics instruction	18%	42%
Someone with instructional expertise for supporting English learners	55%	0%
Someone with instructional expertise for supporting special education students	45%	33%

	Data Wise (n = 11)	Non-Data Wise (n = 12)
School leader or administrator (principal, assistant principal, dean of curriculum & instruction, or similar)	73%	67%
Support services (such as a social worker, school counselor, school psychologist)	9%	17%
District support (math leadership, intervention specialist, curriculum specialist, data team support/specialist)	27%	8%
Other	9%	0%

6. Did you need to prepare for that meeting in advance?

	Data Wise (n = 11)		Non-Data Wise (n = 12)	
	Percent	Count	Percent	Count
Yes	64%	7	33%	4
No	36%	4	67%	8

[If 6=yes]

6a. How many minutes did you spend preparing for that meeting?

Data Wise							
Mean	Min	5th percentile	50th percentile	95th percentile	Max	SD	n
40.7	0	0	30	120	120	40.4	7
Non-Data Wise							
Mean	Min	5th percentile	50th percentile	95th percentile	Max	SD	n
68.8	20	20	37.5	180	180	74.9	4

Use of Data

[This entire section completed only by instructional teams that discussed data (3a=yes)]

7. You indicated your instructional team discussed data during your most recent meeting. Which topic best captures how your team spent the most time engaging with data? (Choose one)

	Data Wise (n = 9)	Non-Data Wise (n = 11)
Reviewing past/ongoing data collection	22%	9%
Understanding which skills or knowledge our assessments measure	11%	9%
Understanding how to read and interpret assessment reports	0%	0%
Engaging in new data or content from recent lessons	11%	9%

	Data Wise (n = 9)	Non-Data Wise (n = 11)
Planning for upcoming data collection	11%	18%
Planning to observe one another's classrooms	11%	0%
Creating data displays (such as creating tables, charts, or other types of data reports)	0%	0%
Planning for instruction based on data	22%	36%
Other	11%	18%
None	0%	0%

8. Which of the following data sources did your instructional team discuss in your most recent meeting? (Choose all that apply)

	Data Wise (n = 9)	Non-Data Wise (n = 11)
Standardized test scores (such as benchmark assessments or state standardized test scores)	56%	55%
Other tests (such as a chapter test or unit test)	22%	0%
Quizzes, exit slips, or other short assessments	33%	18%
Student projects (such as a written paper, science lab, or math project)	11%	9%
Routine classwork or homework assignments	11%	18%
Other smaller student work samples (such as students' notes	0%	0%
Multiple choice items	0%	9%
Open-response items	11%	18%
Observations of instruction our instructional team conducted ourselves	22%	9%
Observations of instruction conducted by people not on our instructional team	11%	0%
Student demographic characteristics (such as gender, race, or socio-economic status)	22%	9%
Student classification for receiving educational supports and services (such as special education or multilingual learner status)	22%	9%
Student grades or report cards	11%	9%
Student attendance	33%	0%
Discipline data or other student behavior data	0%	0%
Parental surveys, phone calls, emails, interviews, or other parent data	0%	0%
Student interviews and/or student self-report surveys	0%	0%

	Data Wise (n = 9)	Non-Data Wise (n = 11)
Other	44%	9%
None	0%	0%

9. Did your instructional team discuss data disaggregated by any of the following student groups? (Check all that apply)

	Data Wise (n = 9)	Non-Data Wise (n = 10)
Multilingual learners	56%	10%
Students with IEPs or 504 plans	44%	30%
Gender	11%	0%
Black or African American students	22%	10%
Latinx students	33%	0%
White students	11%	0%
Another student race or ethnicity	0%	0%
Students who are above/below grade level	44%	60%
Students with a particular proficiency or prior achievement level	33%	40%
Students who have fallen behind on course progress (such as students missing significant assignments, and/ or scoring low on course assessments)	67%	40%
Students qualifying for free/reduced-price lunch status or other low-income metric	0%	0%
Other	11%	20%

10. Instructional teams act on data in different ways. Did your instructional team use data to take any of the following actions? (Check all that apply)

	Data Wise (n = 9)	Non-Data Wise (n = 11)
Selecting instructional strategies to use	22%	36%
Creating a plan for implementing instructional strategies	89%	36%
Planning to revisit and reteach past content/skills	22%	45%
Adjusting a pacing guide or timeline to change what we teach and when we teach it	22%	45%
Grouping students for targeted interventions or differentiated instruction	44%	45%
Using disaggregated data to address equity/achievement gaps	44%	9%
Choosing or creating assessments to measure student process	11%	0%

	Data Wise (n = 9)	Non-Data Wise (n = 11)
Setting student learning goals	33%	9%
Creating a plan for assessing student learning	44%	0%
Adjusting prior plans (such as instructional plans or assessment plans)	44%	27%
Other	0%	0%
None	0%	0%

Content Instruction

Data Use in Instructional Team Meetings

[This optional section can be used to ask about data use for specific content area instruction.]

11a. How strongly do you agree or disagree with the following statements about your most recent meeting?

	Data Wise (n = 6)				Non-Data Wise (n = 9)			
	Strongly disagree	Disagree	Agree	Strongly agree	Strongly disagree	Disagree	Agree	Strongly agree
The data we examined gave me useful insights into the [content] performance of my students.	0%	0%	83%	17%	0%	44%	44%	11%
The data we examined gave us useful insights about student strengths in sub-content areas of [content].	0%	0%	100%	0%	0%	44%	44%	11%
The data we examined gave us useful insights about student weaknesses in sub-content areas of [content].	0%	0%	67%	33%	0%	33%	56%	11%
Our discussion about the data gave me useful insights into how I teach [content].	0%	50%	33%	17%	11%	33%	44%	11%
Discussing [content] learning data with colleagues was more meaningful than examining the data on my own.	0%	0%	50%	50%	0%	33%	44%	22%
I would have preferred to examine the [content] data on my own instead of with my instructional team.	50%	33%	17%	0%	11%	56%	33%	0%

11b. [Content] instruction

	Data Wise (*n* = 6)				Non-Data Wise (*n* = 9)			
	Strongly disagree	Disagree	Agree	Strongly agree	Strongly disagree	Disagree	Agree	Strongly agree
I learned something about the [content] we discussed.	0%	0%	67%	33%	0%	67%	22%	11%
I learned something about designing appropriately challenging [content] lessons/activities.	0%	33%	33%	33%	11%	56%	22%	11%
Our discussion helped my instructional team get on the same page about [content] instruction.	0%	0%	83%	17%	0%	11%	78%	11%
I plan to make changes in my [content] teaching as a result of things I learned in our most recent meeting.	0%	33%	50%	17%	0%	44%	33%	22%

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