



Collaborative Data Inquiry Practitioner Toolkit: Training Slide Deck

February 2026



Instructions



- This slide deck provides an overview of Collaborative Data Inquiry (CDI) and introduces the goals and design of the CDI Practitioner Toolkit, developed by SRI, the Data Wise Project at Harvard Graduate School of Education, and New York University Institute of Human Development and Social Change. It also includes practice exercises for scoring team meetings using the Instructional Team Meeting Observation Rubric. The training is intended for users who will lead CDI Practitioner Toolkit implementation in their settings and/or serve as observers.
- We encourage you to have the Instructional Team Meeting Observation Rubric available for reference as you review these slides.
- You can access the CDI Practitioner Toolkit at <https://www.sri.com/education-learning/project/cdi-toolkit/>
- **Suggested citation:** Brown, L., Laguarda, K., Capan, S., Bocala, C., & Burkander, P. (2026). Collaborative Data Inquiry Practitioner Toolkit. SRI.

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Collaborative Data Inquiry & Toolkit Goals

What Is Collaborative Data Inquiry?



*A process in which teams work together to **analyze** and **interpret** data, **identify** patterns and insights, and use this information to **inform** decisions aimed at **improving** teaching practices and student learning.*



What Is Collaborative Data Inquiry?



- In CDI, educators collaborate by using data to connect teaching to student learning and behavior, and to continuously improve instruction and classroom environments through data inquiry cycles, which can include analysis, planning, action, and reflection/adjustment.
- There are various ways data inquiry can be implemented in instructional teams, such as the Data Wise Framework.





The CDI Practitioner Toolkit seeks to help education practitioners understand, identify, and evaluate the characteristics, processes, and behaviors of teams as they engage in various forms of collaborative data inquiry, data-driven decision making, and continuous improvement processes that rely on data.

Toolkit Design: Why This Toolkit?



The CDI Practitioner Toolkit can be used by **instructional coaches, educators, and school and district leaders** to:

1. monitor the progress of instructional teams and team members engaged in CDI,
2. understand the extent to which CDI is supporting productive conversations about instructional practice,
3. provide actionable feedback,
4. identify teams that need additional support and coaching, and
5. support scaling and sustaining CDI after external training and support has ended.





User Guide



**Meeting
Observation Rubric**



**Meeting Exit
Ticket**



**Team Member
End-of-Year Survey**



**Team Reflection
Protocol**



Data Dashboard

The CDI toolkit is free to use and can be accessed at:
<https://www.sri.com/education-learning/project/cdi-toolkit/>.



Instructional Team Meeting Observation Rubric: Structure and Scoring

Toolkit Design: Meeting Observation Rubric



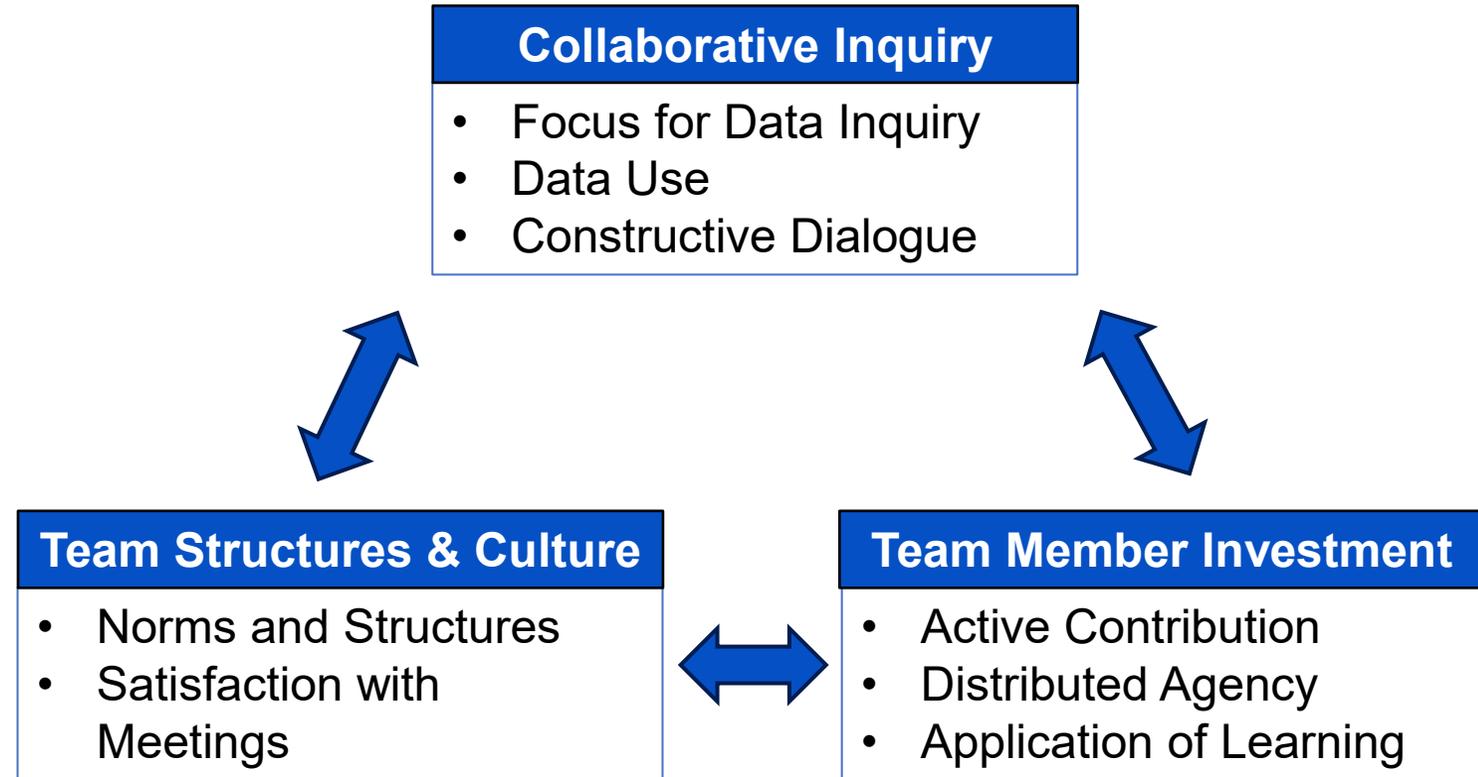
- The Instructional Team Meeting Observation Rubric is designed to be used by an **external observer** to record team processes as they occur in a **single meeting**. As such, the Observation Rubric is designed to capture aspects of team functioning at a single point in time.
- The external observer could be an instructional coach, a team leader, another instructional leader at the school or district level, or a researcher.



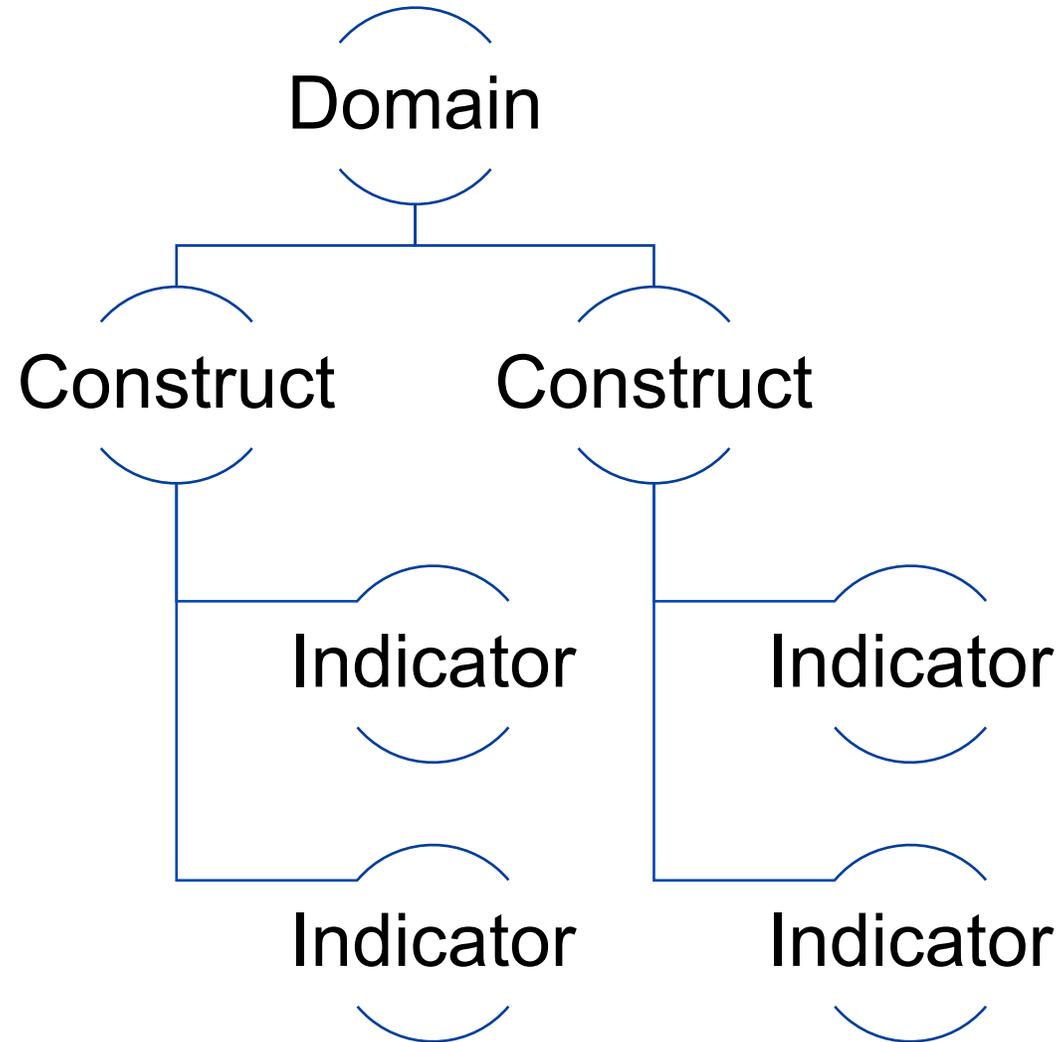
Toolkit Design: Key Attributes of Effective Data Inquiry



- The CDI Practitioner Toolkit is based on the data inquiry literature, and it is designed to measure three domains of team processes theorized to contribute to effective team functioning in CDI.
- Each domain (in dark blue) is made up of several constructs (bullet points), which in turn are made up of 2–6 indicators of functioning.
- The Observation Rubric follows this domain-construct-indicator structure.



Toolkit Design: Domain-Construct-Indicator Structure



Observation Rubric: Scoring Guidelines



- For each construct, the Observation Rubric includes descriptions of practice at three levels (Emerging, Developing, and Proficient) for 2–6 indicators related to the construct.
- Observers will assign scores of Emerging, Developing, and Proficient at the indicator level first, and then aggregate those scores to the construct level.

		Domain → Collaborative Inquiry		← Construct				
		Focus for Data Inquiry						
<p>The construct of Focus for Data Inquiry encompasses the team's ability to collaboratively pinpoint and address a specific, education-related issue that is significant to their context. This involves identifying a focus for data inquiry that is actionable and grade-level appropriate.</p> <ul style="list-style-type: none"> Suitability assesses whether the data inquiry focus is aligned with grade-level and content standards and takes students' prior learning into account. Alignment of Meeting Activities measures how well the activities in the observed team meeting address the data inquiry focus. 								
		Emerging		Developing		Proficient		
Indicator	Suitability	<p>The data inquiry focus is not clear, or it is not relevant or appropriate for the team's grade level or content focus, or it is not aligned with standards.</p> <p>The data inquiry focus does not address curricular objectives or build on students' prior knowledge and/or strengths.</p>	<p>The data inquiry focus is somewhat relevant, appropriate, or aligned with the team's grade level, content focus, and standards.</p> <p>The data inquiry focus may not fully address curricular objectives or build effectively on students' prior knowledge and/or strengths.</p> <p>Adjustments would be needed to ensure the focus is challenging yet attainable and actionable.</p>	<p>The data inquiry focus is fully relevant, appropriate for the team's grade level and content focus, and aligned with standards.</p> <p>The data inquiry focus effectively addresses curricular objectives and builds on students' prior knowledge and strengths.</p> <p>The focus is challenging yet attainable and actionable.</p>				
	Alignment of Meeting Activities	<p>Meeting activities are largely misaligned with the focus for data inquiry. There is minimal time devoted to relevant tasks, with significant portions of the meeting spent on unrelated activities or off-task discussions.</p>	<p>Meeting activities are somewhat aligned with the focus for data inquiry, though there may be occasional deviations. Although relevant tasks are addressed, the meeting may also include off-topic discussions or activities that do not directly contribute to the intended data inquiry focus.</p>	<p>Meeting activities are clearly and consistently aligned with the focus for data inquiry. The majority of the meeting is devoted to activities and discussions that contribute directly to the intended data inquiry focus. The team effectively uses the allotted time to achieve the meeting's objectives.</p>				
Construct Score		1	2	3	4	5	6	7



Observation Rubric: Scoring Guidelines

- Score each indicator at three quality levels: Emerging, Developing, or Proficient.
- Constructs are rated on seven quality levels (1 through 7).
- Your indicator level ratings should inform your construct-level rating.

Going from indicators to constructs:

- Think holistically about the construct — reread the description.
- Think through the overall quality and evidence of behaviors observed.
- Consider the frequency, consistency, and strength of evidence.
- If behaviors and scores fall between two levels, select the lower score unless there is compelling evidence for the higher level.



Observation Rubric: Scoring Guidelines

- In cases where there are several indicators under a construct that you scored at different levels, you may struggle to decide on a construct score.
- In these cases, you can use the “tiebreaker” indicator, marked with a parenthetical asterisk (*) in the Observation Rubric. If you are struggling to decide a score, you can weight this indicator slightly more heavily to help push you to one score point over another.
- Example: You scored Meeting Agendas and Protocols as Emerging but Meeting Roles, Fidelity of Implementation, and Time on Task as Developing. Thus, you are between a 2 and a 3 for the Norms and Structure construct score. In this case, the Time on Task score might push you to a 3 if it is Developing.

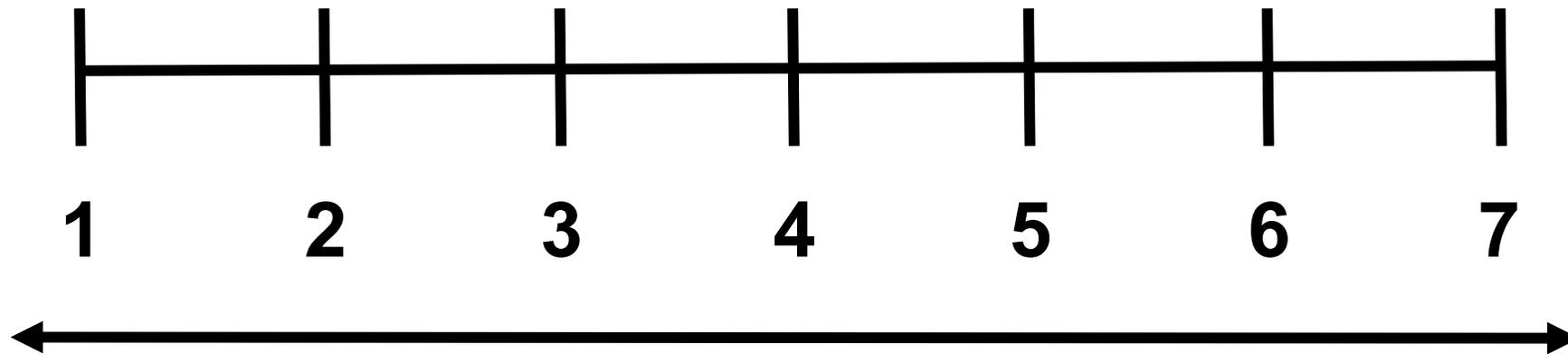
Norms and Structures
Meeting Agendas
Meeting Roles
Protocols
Fidelity of Implementation
(*) Time on Task





Observation Rubric: Scoring Guidelines

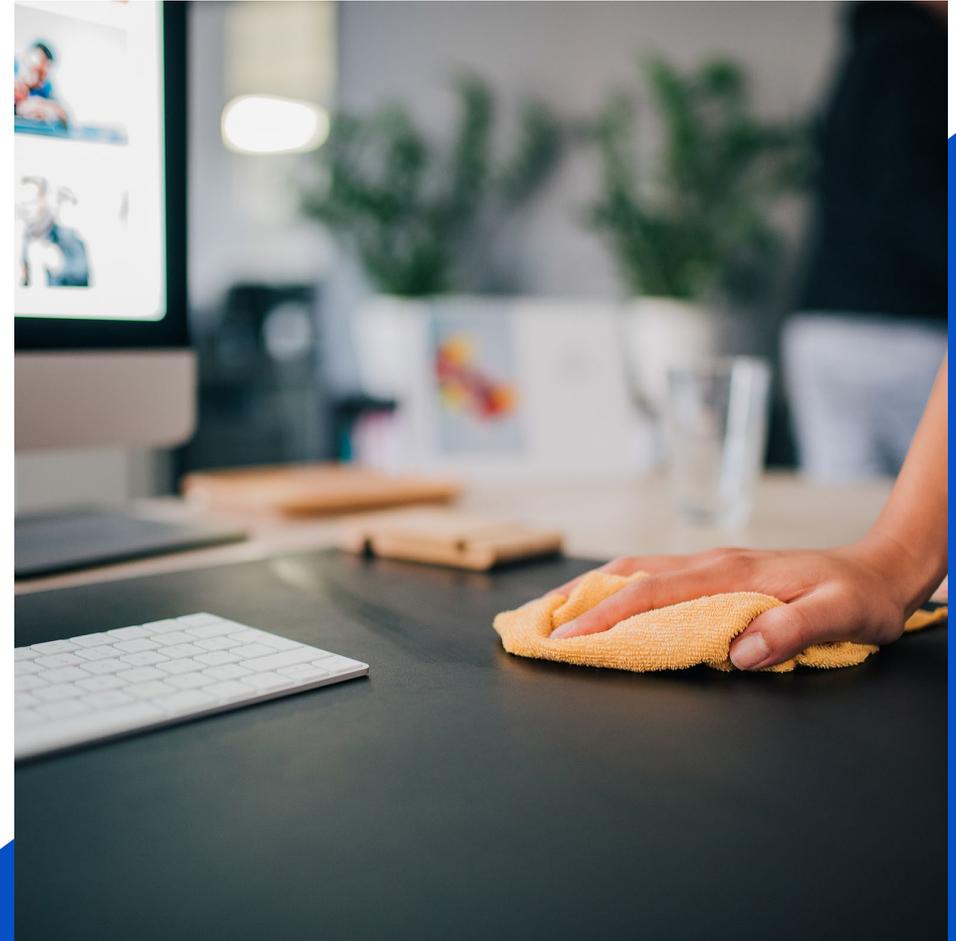
- Please use the **entire rating scale** when providing indicator ratings and construct scores.
- When rolling up to construct scores, don't reserve scores of 7 or 1 for extreme cases or to signal that there is always room for improvement. Both ends of the scale (1 and 7) should be attainable scores.



Practicing Good Observation Hygiene



- The Observation Rubric is designed for teams that are *not* at the beginning of the data inquiry process. It is for teams that already decided on a focus for data inquiry and are looking at data.
- Scoring should be based on observable behaviors during the meeting, not on prior knowledge about the team or individual members.
- The rubric may not capture everything you think is important. Try not to place that information somewhere in your rating.
- Take low-inference notes.
- Reference the CDI Practitioner Toolkit's Team Reflection Protocol for recommendations on sharing the observation results and leading productive follow-up conversations with team members.





Instructional Team Meeting Observation Rubric: Scoring Practice Exercises



Instructions

- This section presents **eight** scenarios that reflect situations you might observe in team meetings. First, review the definition of the relevant indicator. Then, read each scenario and assign an indicator rating for the team.
- You can view the **reference rating** assigned by the CDI Practitioner Toolkit design team in the speaker notes section of each slide.
- We recognize that it can be challenging to understand all the nuances of a team meeting from a brief scenario. Thus, your ratings may differ from those of the design team. If they do, we encourage you to reflect on why the scores may differ and what additional evidence could support your rating decisions.



Indicator: Suitability



Focus for Data Inquiry

The construct of **Focus for Data Inquiry** encompasses the team's ability to collaboratively pinpoint and address a specific, education-related issue that is significant to their context. This involves identifying a focus for data inquiry that is actionable and grade-level appropriate.

- **Suitability** assesses whether the data inquiry focus is aligned with grade-level and content standards and takes students' prior learning into account.
- **Alignment of Meeting Activities** measures how well the activities in the observed team meeting address the data inquiry focus.

Suitability assesses whether the data inquiry focus is aligned with grade-level and content standards and takes students' prior learning into account.

A middle school math team selected “fluency in addition and subtraction” as their data inquiry focus. While some students do struggle with fluency, most students (~80%) showed mastery of multi-step equations and fractions in their assessment data. The curricular objectives focused on common factors, fractions, algebraic expressions, and geometry.

Emerging	Developing	Proficient
<p>The data inquiry focus is not clear, or it is not relevant or appropriate for the team’s grade level or content focus, or it is not aligned with standards.</p> <p>The data inquiry focus does not address curricular objectives or build on students’ prior knowledge and/or strengths.</p>	<p>The data inquiry focus is somewhat relevant, appropriate, or aligned with the team’s grade level, content focus, and standards.</p> <p>The data inquiry focus may not fully address curricular objectives or build effectively on students’ prior knowledge and/or strengths.</p> <p>Adjustments would be needed to ensure the focus is challenging yet attainable and actionable.</p>	<p>The data inquiry focus is fully relevant, appropriate for the team’s grade level and content focus, and aligned with standards.</p> <p>The data inquiry focus effectively addresses curricular objectives and builds on students’ prior knowledge and strengths.</p> <p>The focus is challenging yet attainable and actionable.</p>

A middle school math team selected “solving multi-step algebraic equations” as their data inquiry focus. Grade-level standards emphasized understanding and solving linear equations, which was identified as a challenge for about 70% of students in recent assessments. Students demonstrated mastery of single-step equations and operational fluency.

Emerging	Developing	Proficient
<p>The data inquiry focus is not clear, or it is not relevant or appropriate for the team’s grade level or content focus, or it is not aligned with standards.</p> <p>The data inquiry focus does not address curricular objectives or build on students’ prior knowledge and/or strengths.</p>	<p>The data inquiry focus is somewhat relevant, appropriate, or aligned with the team’s grade level, content focus, and standards.</p> <p>The data inquiry focus may not fully address curricular objectives or build effectively on students’ prior knowledge and/or strengths.</p> <p>Adjustments would be needed to ensure the focus is challenging yet attainable and actionable.</p>	<p>The data inquiry focus is fully relevant, appropriate for the team’s grade level and content focus, and aligned with standards.</p> <p>The data inquiry focus effectively addresses curricular objectives and builds on students’ prior knowledge and strengths.</p> <p>The focus is challenging yet attainable and actionable.</p>

Indicator: Idea Development



Constructive Dialogue

Constructive Dialogue refers to how team members communicate with one another, particularly the interactions among team members that promote deeper understanding, critical analysis, and effective problem-solving.

- **Relational Trust** captures the level of comfort and security team members feel in openly expressing their views and the degree to which they believe they can rely on one another to engage respectfully and supportively during challenging conversations.
- **Idea Development** measures the extent to which team members utilize one another's contributions in the discussion, incorporating others' ideas into their own responses to build collective knowledge.
- **Transparency of Practice** focuses on the willingness of team members to share specific, candid insights about their own teaching or teaching that they have observed.

Idea Development measures the extent to which team members utilize one another's contributions in the discussion, incorporating others' ideas into their own responses to build collective knowledge.

A cross-departmental high school instructional team, which included teachers from various subject areas, met to discuss ways to improve literacy across the curriculum. The team was focused on creating an action plan to support students with explaining their reasoning while speaking and writing. The facilitator asked each teacher to share how they currently teach this skill in their classrooms. The mathematics teacher explained how she has students work in pairs on complex problems, where students explain their reasoning to a partner before collaborating to write a joint response. Teachers from other departments were interested in this strategy and asked the math teacher to give more detailed examples. A specialist working with English learners built on this idea by offering a set of sentence starters that he used to support students in sharing their reasoning. The notetaker wrote down examples of this strategy for the team to consider in their action plan.

Emerging	Developing	Proficient
<p>Contributions are mostly isolated, with minimal effort to build on or develop others' contributions or ideas.</p> <p>Discussions are disjointed, and there is little evidence of progression towards deeper understanding, combining information into new insights, or collective knowledge.</p>	<p>Team members occasionally build on others' contributions or ideas but miss opportunities to do so.</p> <p>Discussions lack focus and do not consistently result in deeper understanding, combining information into new insights, or collective knowledge.</p>	<p>Team members consistently build on others' contributions in a way that deepens understanding, challenges ideas, and/or leads to combining information into new insights.</p> <p>Discussions are focused and advance toward deeper understanding or collective knowledge.</p>

A cross-departmental high school instructional team, which included teachers from various subject areas, met to discuss ways to improve literacy across the curriculum. Teachers across subject areas shared isolated observations. A science teacher said, “I assign students articles about scientific discoveries, but they rarely summarize them correctly.” A social studies teacher commented, “In my class, students struggle with historical texts, but I just tell them to reread until they understand.” Teachers did not build on one another’s points or explore potential common strategies. When the principal asked, “What strategies could we implement to address these literacy challenges?” team members responded with unconnected ideas, such as assigning more homework or holding students accountable for participation. Each member focused on their individual classroom issues, with no effort to combine insights or develop shared strategies across the team.

Emerging	Developing	Proficient
<p>Contributions are mostly isolated, with minimal effort to build on or develop others' contributions or ideas.</p> <p>Discussions are disjointed, and there is little evidence of progression towards deeper understanding, combining information into new insights, or collective knowledge.</p>	<p>Team members occasionally build on others' contributions or ideas but miss opportunities to do so.</p> <p>Discussions lack focus and do not consistently result in deeper understanding, combining information into new insights, or collective knowledge.</p>	<p>Team members consistently build on others' contributions in a way that deepens understanding, challenges ideas, and/or leads to combining information into new insights.</p> <p>Discussions are focused and advance toward deeper understanding or collective knowledge.</p>

Indicator: Data Engagement



Data Use

***Data Use** assesses how effectively teams use data or other forms of evidence to drive improvements and achieve educational outcomes. It encompasses the selection of appropriate data or evidence types, the depth of engagement with the data or evidence, and the subsequent formulation of actionable steps based on data or evidence insights.*

- ***Appropriateness** of data captures the suitability of the data types chosen by the team for addressing the data inquiry focus.*
- ***Data Engagement** measures the depth and quality of the team's data inquiry activities (discussion, review, or analysis).*
- ***Equity-Focused Data Use** assesses to what degree team members use data to identify and address inequities.*
- ***Accuracy of Data-Related Terms** assesses how well team members understand and use specific data-related vocabulary, such as statistical terms, data analysis concepts, and education metrics.*
- ***Substantiated Interpretations** evaluates the relevance of conclusions drawn from data within the context of the team's goals and analysis.*
- ***Collective Next Steps** assesses whether and how well the team translates data or evidence insights into practical, executable steps, which may include gathering additional data or restructuring data.*

***Data Engagement** measures the depth and quality of the team's data inquiry activities (discussion, review, or analysis).*

A literacy team reviewed assessment data to identify areas for improvement in students' reading comprehension. The team noted that 40% of students scored below the proficiency threshold. They discussed their feelings about this proficiency level but did not delve into possible reasons behind the low scores, such as the complexity of the test passages, instructional gaps, or student engagement during testing. The team did not question the validity of the inferences they could draw from the data (e.g., whether the test aligned with their curriculum) or explore whether other data sources (e.g., student work samples or teacher observations) could provide additional context.

Emerging	Developing	Proficient
There are no data inquiry activities (discussion, review, analysis) of data sources or other forms of evidence.	Some data inquiry activities occur, but they are surface level, focusing more on raw numbers than on understanding the underlying meaning, implications, or potential data limitations.	At least one data inquiry activity is substantive, with team members actively making meaning from the data or evidence, questioning the sources, considering data or evidence limitations, and/or exploring implications.

A literacy team reviewed assessment data to identify areas for improving students' reading comprehension. The team began by analyzing the 40% of students who scored below the proficiency threshold, specific to subgroups (gender, English learners, etc.) to identify patterns or disparities. As part of this conversation, they questioned whether certain test items may have been culturally or linguistically biased, and then determined which additional data sources, such as student work samples or classroom observations, may corroborate or challenge the patterns identified in the assessment data. Based on the results of this future analysis, the team planned to consider revising the pacing guide to allocate more time to comprehension strategies.

Emerging	Developing	Proficient
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Indicator: Relational Trust



Constructive Dialogue

***Constructive Dialogue** refers to how team members communicate with one another, particularly the interactions among team members that promote deeper understanding, critical analysis, and effective problem-solving.*

- ***Relational Trust** captures the level of comfort and security team members feel in openly expressing their views and the degree to which they believe they can rely on one another to engage respectfully and supportively during challenging conversations.*
- ***Idea Development** measures the extent to which team members utilize one another's contributions in the discussion, incorporating others' ideas into their own responses to build collective knowledge.*
- ***Transparency of Practice** focuses on the willingness of team members to share specific, candid insights about their own teaching or teaching that they have observed.*

***Relational Trust** captures the level of comfort and security team members feel in openly expressing their views and the degree to which they believe they can rely on one another to engage respectfully and supportively during challenging conversations.*

A high school science team met to review recent data on student performance in a unit on chemical reactions. The data revealed significant disparities in students' understanding of concepts across classes. One teacher acknowledged the data, saying, "It looks like my students struggled more than others with balancing equations. I'd love to hear how others approached this topic." Another teacher offered to walk through her materials and how she approached the topic. Another team member suggested that some differences in lab implementation—such as access to materials and prep time—might also be a factor and asked how these may be better standardized. Team members listened actively, made eye contact, and offered suggestions without placing blame.

Emerging	Developing	Proficient
<p>Team members avoid conflict or disagreement; they change the subject when difficult topics arise or avoid answering probing questions. Alternatively, there may be signs of open hostility or tension.</p>	<p>Some team members ask probing questions and/or raise difficult topics. Although responses might involve mild defensiveness or hesitation, the group continues the dialogue. There are no signs of open hostility or tension.</p>	<p>Team members openly address and discuss difficult topics, including direct challenges to ideas and approaches, in a way that pushes collective thinking forward. If disagreement occurs, the group remains collaborative, and members show willingness to be open, honest, and receptive to feedback.</p>

A high school science team met to review recent data on student performance in a unit on chemical reactions. The data revealed significant disparities in students' understanding of concepts across classes. Although it seemed that everyone had noticed this trend in the data, no one mentioned it, and the topic was avoided. A teacher raised a concern about inconsistencies in how lab activities were being conducted across classrooms. Rather than addressing the issue, another team member responded with vague statements like, "We all have different teaching styles," and no further discussion occurred.

Emerging	Developing	Proficient
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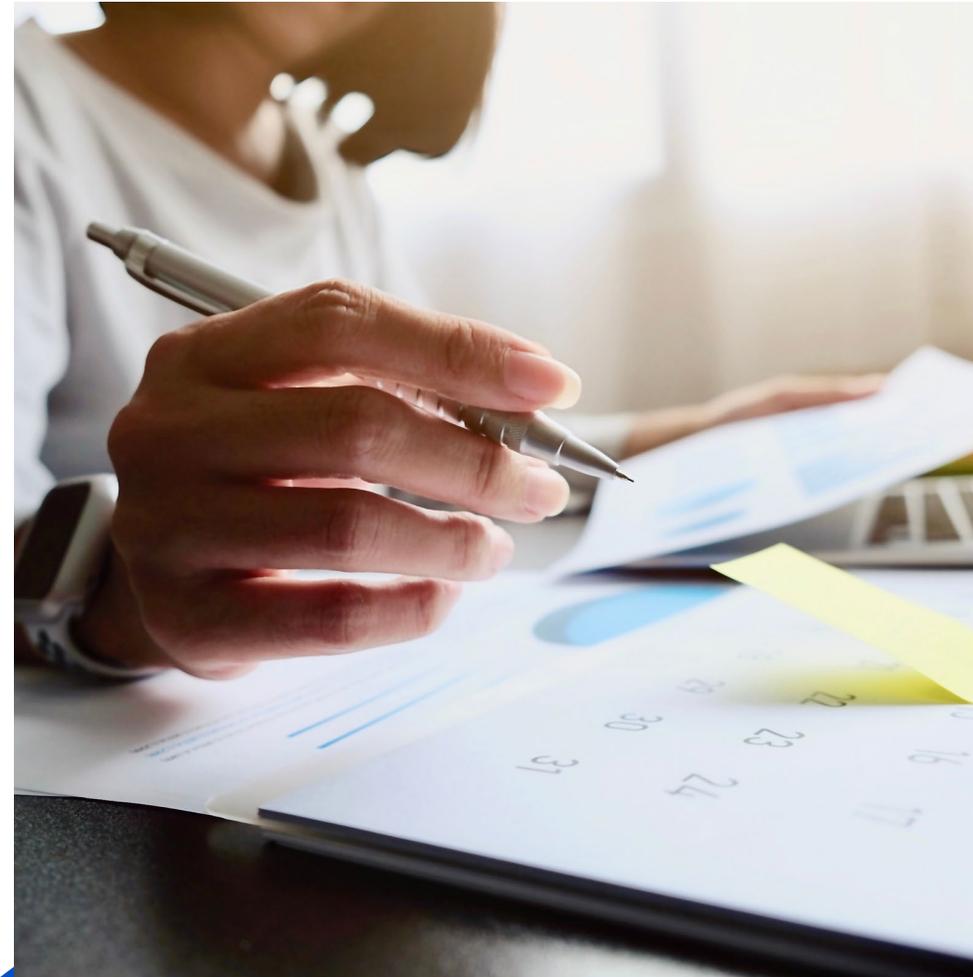


Observing a Meeting with the CDI Practitioner Toolkit: Step by Step



Before the Observation

- Schedule the observation with the meeting facilitator. (*Note: You should not try to observe a meeting that you are facilitating at the same time.*)
- Read the User Guide to familiarize yourself with the behavioral indicators and constructs within the rubric.
- Print out the Observation Rubric for easy reference during the meeting and as you are scoring.
- Make sure the meeting facilitator knows that team members will need 5 minutes to complete the Team Meeting Exit Ticket at the end of the meeting. Send the Exit Ticket link to the meeting facilitator or print Exit Ticket forms as needed.





During the Observation

- Take notes on the team's discussions and behaviors, particularly those that pertain to the look-fors in the Observation Rubric.
- Make note of the information listed on the first page of the Observation Rubric.
- Administer the Exit Ticket at the end of the meeting.

Want more details on how to use the Observation Rubric and Exit Ticket? Review the CDI Practitioner Toolkit's User Guide!





After the Observation

- As soon as possible after the meeting, assign indicator- and construct-level scores, reviewing your running notes and referencing the Observation Rubric as you work.
- Reference the Team Reflection Protocol as you share the results with the observed team. If multiple observers will attend the same team meeting, you could meet to compare your findings prior to sharing any reflections with the instructional team.





Thank you!

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