



TALKING POINTS

**DATA
DISPLAYS
ARE AN
EFFECTIVE
WAY TO
ENGAGE
TEACHERS**

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Although many models of coaching exist, one that promotes a high level of active adult learner engagement is instructional coaching using Jim's Knight's partnership coaching model (Knight, 2007), in which teachers engage in the coaching cycle with a coach or peer and have significant voice in shaping their own learning.

The power of instructional coaching comes through teachers' active involvement in choosing the focus for coaching and their engagement in interpreting data collected during the coaching observation. Consistent with Learning Forward's Standards for Professional Learning (Learning Forward, 2011), this element of teacher voice through active learning processes helps to "promote deep understanding of new learning and increase motivation to implement it" (p. 42).

In our work with coaches using Knight's partnership model of instructional coaching, we have found that the quality of the data display dramatically influences the conversations that occur. To that end, a program created by the

Lastinger Center at the University of Florida is helping instructional coaches become effective change agents in their schools by using a professional learning design that includes creating high-quality data displays to engage teachers in conversation about instruction.

The yearlong program begins with a four-day summer institute. During monthly follow-up meetings, coaches bring videos of themselves conducting coaching conversations in which they share and discuss data displays with their coaching partners. Coaches receive targeted feedback on their growing coaching skills based on a rubric that examines their ability to establish a focus, develop a strong data display, and conduct a collaborative coaching conversation.

This ongoing, job-embedded model allows coaches to implement their new learning in their context with support. Through this work over time, we have observed that creating effective data displays has been both the most problematic for teachers and the most powerful when done well.

THE POWER OF THE DATA DISPLAY

A descriptive, nonjudgmental data display that captures a teacher's prac-

IS YOUR DATA DISPLAY HIGH-QUALITY?

- Is the data display responsive to the teacher's guiding question and designed to lead/guide the coaching conversation?
- Are data nonevaluative, descriptive, and easy to understand? Try to avoid interpretation.
- Is the data display brief — no more than two pages long?
- Does the data display focus on only one key area of practice?
- Does the data display reflect data collected during the entire observation?
- Did you and the teacher agree on the data collection plan and data display?

tice around an identified focus provides the foundation for a productive collaborative coaching conversation. The data display is a visual representation of what the coach observed. The coach uses the display to engage the teacher in conversation about instruction. It ensures that the coach steps out of the role of evaluator, allowing coach and teacher to discuss what the data show.

Clear, descriptive data enable the teacher to feel ownership of successes and challenges in his or her teaching because the data display provides a snapshot of classroom practice that the teacher can recognize and analyze.

The data display leads the conversation. If the coach wants to raise an issue

SAMPLE DATA DISPLAY ELEMENTARY LEVEL

Teacher focus: Student engagement

Key practice:

- Teacher provides multiple learning opportunities involving a range of learning methods, including hands-on activities that lead to student participation and attention.

Teacher question: Are children actively engaged in learning throughout my lesson?

- Begin five or 10 minutes into the lesson.
- Do one tally for each student in the room. Estimate if necessary.
- Do a tally once every three minutes for 15 minutes.

	TIME 1	TIME 2	TIME 3	TIME 4	TIME 5
Listening to or watching the teacher or another student					
Reading or writing alone					
Reading or writing with a partner					
On-task talking (e.g. partner work or one student answering a question)					
Every person response (e.g. choral response, white board, thumbs up)					
Off task					
Probably zoned out					
Other					

the teacher has not considered, the coach can point to data for the teacher to review, ensuring that any judgments developed are either generated collaboratively or by the teacher. The teacher feels ownership of the feedback and sets goals for future learning and more coaching.

Before participating in our program, many coaches used an observational checklist, a district instructional framework, or their own conceptions of high-quality instruction to observe the teacher and provide feedback on strengths and areas for improvement. At the suggestion of coaches in the program, we changed the term for what coaches do in classrooms from “observation” to “data collection” to highlight this important conceptual shift in their work.

Through this model of using data displays to lead coaching conversations, coaches we have worked with are realizing powerful results with teachers. The use of data displays creates a structure for the conversation and allows teachers to interpret and own the data.

One coach said, “Creating data displays after the observations gave me time to prepare questions that would lead to self-reflection by the teacher. I included the date, time, class period, focus question, and Marzano indicator on the display. Graphs and charts were created to display the information collected. Allowing teachers to look at the data and draw conclusions is a

positive approach to coaching. Teachers lead the conversations by discussing their interpretation of the data. Coaches help facilitate the discussion by asking questions about the display. Teachers can then make informed decisions about their own pedagogy.”

One of the teachers being coached added, “Data displays are essential. They are concrete evidence of what happened during the observation, and they can’t be ignored. The display provided me a fresh perspective on my class.”

Although coaches easily see the power and importance of the data display, collecting data is a radical shift for many, and developing a high-quality data display is a new and challenging skill. Here are the elements for creating a strong data display.

CREATING A STRONG DATA DISPLAY

Connect to one key area of practice. The data display must be clearly connected to the guiding question the teacher has asked, and that guiding question must be clearly linked to one key area of practice in the instructional framework used by the district or early learning community.

If the focus is too broad, there is danger that the data display will resemble a good practice checklist. Several coaches experienced difficulty creating data displays because the teacher’s opening question was a broad statement: “Just come in and tell

SAMPLE DATA DISPLAY EARLY CHILDHOOD LEVEL**Teacher focus:** Instructional support**Key practice:**

- Teacher facilitates concept development by linking concepts to what students already know.
- Teacher facilitates concept development by providing real-world examples of concepts.

Teacher question: Am I supporting the development of new concepts by linking new learning to what students already know and providing real-world examples?

Note: Before collecting data, ask the teacher to identify key concepts or vocabulary that will be part of the activity. If an important term or concept emerges during the activity, record that as well. List all important concepts in the activity — even if there are no links to real-world or previous knowledge.

Vocabulary term or concept	Teacher talk (or elicited student talk) that links concept to what students already know (record exact language)	Teacher talk (or elicited student talk) that provides real-world example of concept (record exact language)

me what I need to work on.”

In those cases, the coach’s first task is to gently push the teacher to identify one focus to guide the observation. Until the teacher selects an area for improvement, coaching cannot occur. To help coaches make this shift, we provide samples of data displays for commonly asked questions, and we offer a data display format that requires them to list the instructional focus area, key practices, and the teacher’s question. Our guideline is that the teacher should target no more than two key practices.

Align data to the guiding question. The data display must specifically provide data that match the guiding question. For example, the data display created for a teacher focused on student engagement (see sample on p. 26) is substantively different than the one focused on concept development (see sample above).

Because of this, coaches need to use judgment and expertise in developing the data display. Providing a selection of potential data displays for common teacher questions helps coaches get started in the data collection process and provides a model for them to follow as they begin to develop their own displays.

Make it clear and simple. The data display must be easy to understand. Notice that both sample data displays include explicit directions about how the data are collected. Explicit

data collection directions clarify what data to collect and how to collect it. This often means the coach suggests a data collection/display tool for the teacher to consider.

Explicit directions about data collection also help keep the coach focused on data and mean that the collected data can be interpreted by the teacher with minimal explanation by the coach, helping to keep the coach from slipping into evaluation during the conference. It also helps the teacher own the data.

In order for data to be easily understood, the coach must be cautious about the amount of data collected. In the sample on student engagement, data are represented by tallies that are easy for the teacher to examine. In the sample on instructional support, the data involve reading text (the language used by the teacher), but the language is categorized by type and concept. This makes it possible for the teacher and coach to chunk the data for analysis and conversation.

As a general guideline, we suggest to coaches that a data display should be no longer than two pages. The clear focus on one or two key practices also prevents a coach from focusing on too much data in one observation.

Use specifics. The data should communicate what happened over the entire observation period. In the sample on student engagement, the coach collects data about the

SAMPLE OF COMPLETED DATA DISPLAY

Teacher focus: Wait time

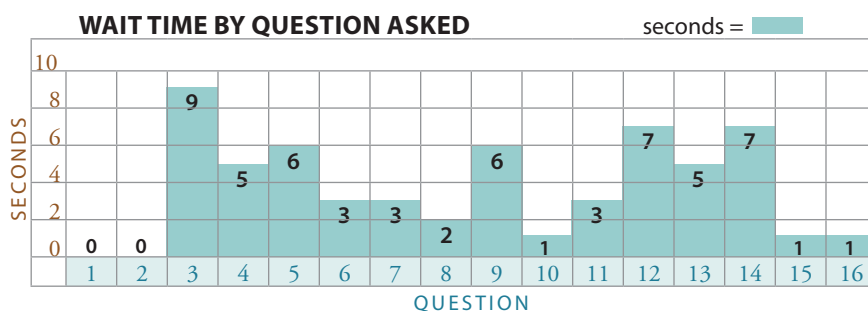
Key practice:

- Teacher provides wait time after posing questions in order to give students time to think and process.

Teacher question: Am I providing enough thinking time after I ask questions?

- Begin five minutes into the lesson.
- Write down each question the teacher asks and wait time (seconds) for each.

	QUESTION	WAIT TIME (seconds)
1	How many cuts?	0
2	So how many cuts are we making?	0
3	Does anyone know how fossils and coal are made?	9
4	Take a look at the pictures. What do you see?	5
5	Is there anything in the world that reminds you of this?	6
6	Is there anything in the real world that can help you remember what a mineral is?	3
7	Does anyone remember anything else about minerals?	3
8	How can we test minerals?	2
9	How else can we figure out a mineral?	6
10	What does luster mean?	1
11	What does origin mean?	3
12	Where do you think we would find the most igneous rocks?	7
13	What root word do you see in the word metamorphic?	5
14	What else have we learned that has the word morph in it?	7
15	What does metamorphosis mean?	1
16	Do we understand difference between sedimentary and metamorphic?	1



engagement of every student at fixed intervals over a 15-minute block of instruction. A data display that simply records who is engaged without focusing on time blocks can be misleading rather than illuminating: A student who is engaged for 12 minutes and disengaged for three might be tallied in a disengaged category along with a student who was disengaged for all 15 minutes.

In the sample on instructional support, the coach lists every concept the teacher plans to introduce and any other major concepts introduced over the entire period as well as the language the teacher uses to provide links to previous experience or real-world examples. In this way, the teacher might “see” that while she is carefully linking some concepts to previous experience, others, important for children’s understanding of the lesson, are not as carefully developed.

Be descriptive, not interpretive or evaluative. The data display must present descriptive data rather than interpretive data. Notice that the data display in the sample on student engagement recognizes that engagement itself is a judgment and provides a “probably” category that the coach can use when engagement isn’t clear. This instrument enables the coach and teacher to engage in a conversation about what engagement is and how engagement should be judged.

The sample on instructional support asks the coach to write the language used by the teacher so that they can explore how the teacher is linking to previous experience and real-world examples. If the coach simply recorded a tally in the columns, the data would reflect the coach’s evaluation of whether the teacher had made the link, and the conversation would not be able to focus on the quality of connections or missed opportunities.

A completed data display is shown at left. In this display, the teacher wanted data related to her use of wait time after posing questions. In this data display, the questions the teacher asked along with the number of seconds of wait time are recorded on both a chart and a graph.

There is no interpretation here: Data are recorded as agreed upon by the teacher and coach. During the coaching conversation, the teacher can interpret what is happening guided by careful probing and prompts from the coach to encourage self-reflection and deep understanding by the teacher.

In our work with coaches, we find that coaches must develop a balance between ensuring data are descriptive rather than evaluative while simultaneously making the data digestible. For example, if a teacher is working on higher-order questioning and the coach categorizes questions as higher- or lower-order, that judgment may eliminate important avenues for conversation about the exact nature and purpose of higher-order questioning.

Instead, we encourage coaches to record teacher questions and the approximate length of student responses (or exact language if possible) so teachers can begin to examine the connection between questioning and student thinking rather than focusing on whether questions fit a particular category.

THE VALUE OF COLLABORATION AND CRITIQUE

Learning to create strong data displays requires strong knowledge of instructional practice. In addition to providing coaches with tips, samples, and instructor feedback, we have found that opportunities to work collaboratively to create data displays and bring sample data displays to group meetings for peer critique and revision are critically important in improving the quality of data displays and increasing the power and impact of coaching conversations.

Problem solvers

Continued from p. 22

over teacher-to-student talk, spending more time unpacking the Common Core math standards, and discussing their implication for student learning.

Additionally, I would like to do a similar round of observations and common planning times with questioning and text-dependent questions in literacy. I would like to see if the work we did around questioning in math at the Hurley had any effect on literacy instruction.

I will collaborate with the literacy coach to plan and follow up on these common planning times. I believe that professional learning that highlights best practices and has realistic, specific takeaways has the most impact on student achievement.

REFERENCE

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Through these strategies, teachers and coaches we have worked with report changes in teacher practice. One teacher connected her growth directly to the use of a clear, concise data display: “From the organization of the data display, I was quickly able to discern the types of questions I asked my students. I was able to make specific changes to my teaching as a result.”

Although not all teachers directly link their learning to the data display, many appreciate the value of having another set of eyes to help them examine their practice. The data display is a tool coaches use to enable teachers to see what they saw and thus engage in collaborative professional conversations that change teacher thinking and practice.

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RECOMMENDATIONS FOR THE HURLEY SCHOOL

- Unpack the math standards by grade level.
- Consider how the Common Core’s Standards for Mathematical Practice are evident and are planned for during student learning.
- Use formative assessment as a way to inform practice day-to-day.
- Encourage staff to participate in professional learning when possible.

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