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INSIDE

Leadership Lessons From Schools Becoming "Data Wise"

by Jennifer L. Steele and Kathryn Parker Boudett

When delivering her opening-day speech to faculty at McKay K–8 School in Boston, second-year principal Almi Abeyta hoped that displaying recent state test results would "light a fire" among teachers and spark a powerful conversation about instructional improvement. Instead, teachers reacted with stunned silence, quickly followed by expressions of anger and frustration. It was the first they had heard about the prior year's decline in language arts scores. Almi felt as if she "had dropped a bomb" on the room. Far from igniting collaborative energy, her presentation of achievement data seemed to have squelched it.

As schools respond to external pressure to raise student achievement, the perils of examining data loom large. How, school leaders may wonder, do you convince colleagues that engaging in ongoing, collaborative data discussions is worthwhile? How do you discuss data and instruction without finger-pointing or leaping to conclusions? And how do you use insights gleaned from the data to make meaningful—and lasting—instructional improvements?

A few years ago, we collaborated with a team of professors, school administrators, and graduate students to write *Data Wise: A Step-by-Step Guide to Using Assessment Results to Improve Teaching and Learning* (Harvard Education Press, 2005). The book offers an eight-step approach to collaborative, evidence-based instructional improvement (see "The 'Data Wise' Improvement Process," *HEL*, January/February 2006). Since then, schools all over the country have adopted the Data Wise approach. As we worked with many of them, we realized that teachers and administrators who are spearheading the Data Wise improvement process in their schools—as well as those pursuing other approaches—often encounter similar questions and obstacles. So we set out to develop case studies of eight of these schools, documenting the leadership challenges that school leaders typically face during each step of the improvement process, as well as the strategies they use to address them.

Make data relevant and give data teams time to develop the skills they need to be successful.

Investing in Preparation

In the first phase of the Data Wise process, *Prepare* (see "The Data Wise Improvement Process," p. 2), school leaders typically face two critical challenges: communicating the need for a data initiative and creating data teams that are equipped to lead the work. The leaders we studied confront these challenges in two ways: by making data relevant, and by giving their data teams time to develop the skills and systems they need to be successful.

Make data relevant. As school leaders embark on the improvement process, they need to convince staff that looking at data will not be yet another distraction from their work but will help them do that work more efficiently. For instance, when taking the helm of Newton North High School in Newton, Mass., a school with a history of high academic achievement, first-time principal Jennifer Price found herself in a situation where test scores could easily be dismissed as beside the point. She decided to focus on a topic of longstanding concern to both faculty and the community: how to close the school's academic achievement gaps. This helped her recruit a large, diverse team of faculty members to gather and analyze data. Explaining her decision to make data relevant, Jen says, "Every department sees the achievement gap manifested in one way or another. By focusing the work of the data team on the achievement gap, the use of data becomes connected to why people come to work."

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Set aside time to build capacity. In addition to establishing data teams, school leaders need to give team members time to develop their knowledge and to create systems that support the team's efforts (see "Is Your School Ready to Become 'Data Wise?'" p. 3). Shortly before undertaking the Data Wise improvement process, Pond Cove Elementary School in Cape Elizabeth, Maine, had emerged from a cumbersome, externally imposed assessment initiative that was ultimately suspended. Principal Tom Eismeier knew that if the Data Wise approach was to be successful, he and his data team would have to think carefully about how to get the process right. As media specialist Shari Robinson recalls, "[We] didn't want it to end up as just another failed initiative." Consequently, Tom, Shari, and the rest of the data team spent a semester in preparation. They took inventory of data already in use at the school, developed a computer-based data analysis system that would be easy for teachers to use, and chose an instructional focus—literacy—that the faculty had already made a priority for the year. Although the team often felt they were losing a race against the clock as time wore on and the most recent test data grew stale, their patience paid off in the end, when their user-friendly approach to data analysis was well received by their colleagues.

Facilitating Large-Scale Inquiry

In moving from the *Prepare* to the *Inquire* phase, school leaders often face another critical challenge: how to engage the entire faculty in honest conversations about data, particularly when, as Shari Robinson puts it, "Data can wound." This was the challenge Almi Abeyta encountered in presenting her data to the McKay School faculty. In addressing that challenge, Almi and other leaders we observed demonstrate two important lessons: establish clear norms for looking at data, and conduct frequent, focused conversations about student learning.

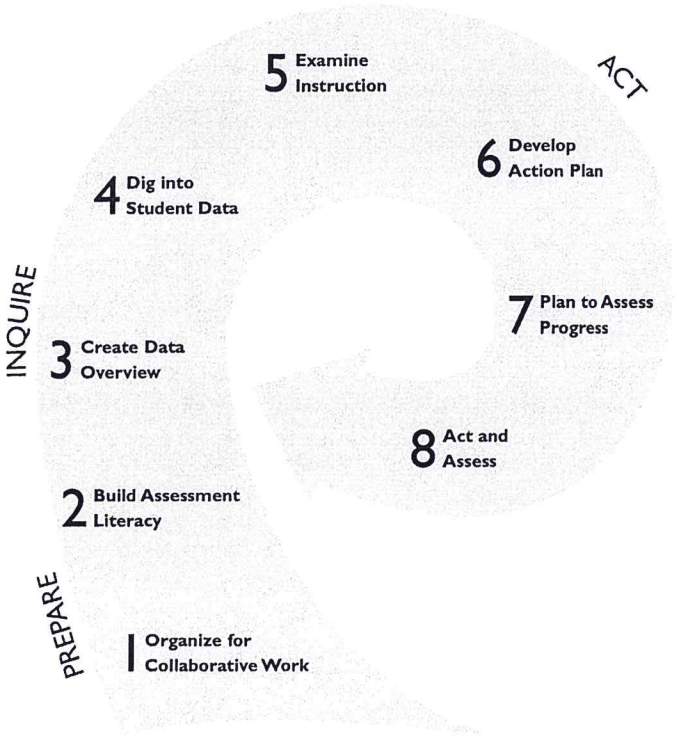
Establish clear norms for data analysis. At McKay, Almi bounced back from her initial presentation and learned to lead productive data conversations by creating a transparent, nonthreatening discussion process. Adapting a protocol commonly used to analyze visual art, she and her data team now present test score data graphically during faculty meetings and ask teachers to ground their data interpretations in objective observations. With its focus on observation and objectivity, this approach facilitates rich conversations and minimizes the threat of finger-pointing or blame.

Conduct frequent, focused conversations about student learning. At Murphy K–8 School in Boston, principal Mary Russo and her staff also rely on clear norms to promote inquiry. They have developed a structured peer-observation protocol in which the teacher who is being observed chooses the lesson, briefs colleagues beforehand, and specifies the aspects of the lesson on which she would like feedback. This protocol puts teachers at ease during the potentially threatening experience of being observed by their colleagues and makes it easier to conduct peer observations on a regular basis. Murphy second-grade teacher Tricia Lampron recalls the first time she participated in this process: "If there were no steps or predesigned process, I wouldn't have known how to prepare or what my peers would be watching. But the structured process provided an opportunity to focus the observation. . . . That made all the difference."

Taking Meaningful Action

In moving into the *Act* phase, Data Wise leaders face the challenge of helping faculty choose, implement, and assess a viable action plan based on insights from the data they have gathered. Taking action can prove difficult; faculty members often have divergent ideas about how broad or narrow the action plan should be and what kinds of instructional improvements are likely to have the most impact. The schools we observed address this challenge by getting down to the "nitty-gritty" in their action planning and by helping teachers "keep the faith" when refinements are needed.

The Data Wise Improvement Process



Get down to the "nitty-gritty." When test scores at Mason Elementary School in Boston showed that students were struggling with writing about texts, teachers were shocked. After all, students wrote about texts all the time in their readers' notebooks. However, when teachers examined the notebooks collaboratively, they realized that each teacher had different standards for evaluating students' reading-response letters. As in many schools, a key challenge the teachers faced was defining consistent instructional expectations across grades. After much conversation and debate, they developed an action plan that described exactly how they would teach and assess reading-response letters at each grade level. Teacher and data coordinator Hilary Shea explains that this "nitty-gritty" focus was the key to the plan's eventual success: "If you want improvement . . . you can't tackle everything at once. Getting people to choose small topics is so important."

Keep the faith. The Data Wise improvement process is not a one-time event but a model of ongoing inquiry. The school leaders we observed in our case studies understand that the work of continual improvement is never done. At Community Academy, an alternative high school in Boston, principal Lindsa McIntyre and her faculty devised an action plan for assigning homework consistently across the school. However, in assessing the plan's implementation and effectiveness, they realized that their initial success in raising teachers' expectations and students' engagement was being eroded by the ongoing transfer of new students into the school, with some classes doubling in size. Some new students resisted doing homework, while others found the requirement overwhelming and despaired of keeping up. Lindsa and her team realized they had to explore new alternatives: Establish a study hall? Require new students to start on Mondays, so teachers could plan orientation activities? The challenge for Lindsa and the leadership team—as for any school leader at this phase of the cycle—is to take heart from evidence of success while continuing to target areas for improvement.

Learning from Leaders

The leaders in our eight case studies creatively adapted the Data Wise improvement process to meet the unique challenges facing their schools. At the same time, they drew many of the same lessons from their experiences, based on their common commitment to shared leadership, collaborative learning, and evidence-based decisionmaking.

As for Almi Abeyta, the lessons she learned from her initial presentation fueled her determination to foster productive, collaborative data conversations among the faculty. Two years later, she was able to turn the opening-day presentation over to her enthusiastic data team, who presented evidence of academic improvement in several areas and then announced that McKay had made Adequate Yearly Progress in language arts. On hearing the news, teachers cheered. Then they dove right into a spirited discussion of how to build on their students' progress in the coming year. ■

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Is Your School Ready to Become "Data Wise"?

If you are wondering whether your school is ready to use student data to improve teaching and learning, you may want to consider four key questions:

1. **Is our principal committed to becoming a "Data Wise" leader?**
   For the Data Wise improvement process to work successfully at the school level, it is essential that the principal be on board. If you are the principal, this means that you must commit to building a culture based on trust, where teachers feel comfortable admitting what they don't know and confident that they will be supported as they strive to improve their practice. If you are a teacher, coach, or administrator, the first step toward bringing your principal on board may be to discuss how the effective use of data might improve teaching and learning in your school.
2. **Is there time for teachers to work collaboratively?**
   Teachers need time to engage regularly in conversations with colleagues about a wide range of data sources. Whether you rearrange your school schedule to ensure that teachers have ample common planning time or rethink the way you use existing common time, you'll want to be sure that the insights arising in small group meetings can be shared among your entire staff.
3. **Is there someone besides the principal who can oversee data management?**
   To make collaborative time most effective, it is critical that someone at your school—ideally *not* the principal—take responsibility for managing the data and ensuring that it is shared with teachers in a way that draws them into the conversation. For many schools, freeing up a teacher or administrator to work part-time for a year to create a system for collecting, analyzing, and discussing data is an investment that pays off for years to come.
4. **Is there professional support for improving instruction?**
   Finally, if you want all your data work to translate into real changes in classroom practice, it is important to think ahead about how teachers will gain access to high-quality professional development, whether from within or outside the current school staff. ■

Data Wise in Action, edited by Kathryn Parker Boudett and Jennifer L. Steele (Cambridge, MA: Harvard Education Press, 2007), $29.95. To order, call 1-888-437-1437 or visit **harvardeducationpress.org**.

Arlington
INDEPENDENT SCHOOL DISTRICT
More Than a Remarkable Education

Data Wise Improvement Process

School leaders will use this eight-step process to improve student learning through preparation, inquiry and action planning using student assessment data to create effective instruction.

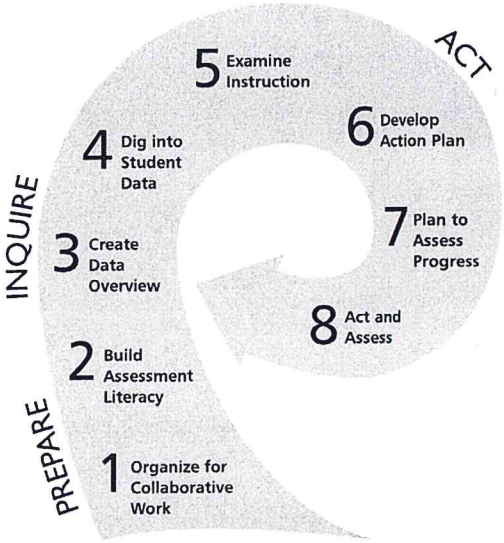
How does it work?

Schools must first analyze and organize the student assessment data to understand student performance and instructional effectiveness and create an open environment for educators to discuss the results through graphic illustrations, triangulation of data, and developing and implementing an action plan.

Eight-step process

Prepare

1. Organizing for collaborative work: School leaders will establish data teams that will engage in meaningful discussions addressing student performance and teaching practice.
2. Building assessment literacy: Faculty will be familiarized with how to interpret score reports, the different types of assessments, and the use of key concepts like reliability, validity, measurement error and sampling error to help create a clear understanding of student data assessment.

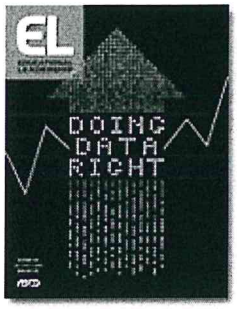


Inquiry

3. Creating a data overview: Each data team will create graphic displays of standardized test results to better demonstrate an overview of student assessment data allowing for constructive conversations about patterns illustrated.
4. Digging into student data: Data teams will identify the learner-centered problem, a problem of understanding or skill that is common for many students, so that a solution can be reached on understanding the needs of students in both knowledge and skills. Triangulating data – an approach that forces educators to look at test items in group content, across groups of similar items and at individual test items – will help educators hypothesize reasons for specific student responses. Schools then use multiple data sources to test their hypothesis about student performance.
5. Examining instruction: The learner-centered problem will transition to a problem of practice as school leaders assist teachers in adapting new practice strategies to develop a shared understanding of effective instruction that addresses the problem.

Act

6. Developing an action plan: Through the previous steps, a decision on an instructional strategy can be easily identified and put into collaborative work to describe how it will fit into the classrooms. Each team will write out an action plan and document members' roles and responsibilities to build internal accountability.
7. Planning to assess progress: In order to accurately interpret the action plan, school leaders will direct faculty to develop what short-, medium- and long-term data will be needed to measure the progress of the action plan in short-, medium- and long-term goals for student improvement.
8. Acting and assessing: While implementing the action plan, school leaders and teachers will ask check-and-balance questions to ensure effective instruction. In addition to these questions, teachers will be held by the internal accountability previously established in step 6 to ensure the students receive the highest level of instruction.



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Doing Data Right

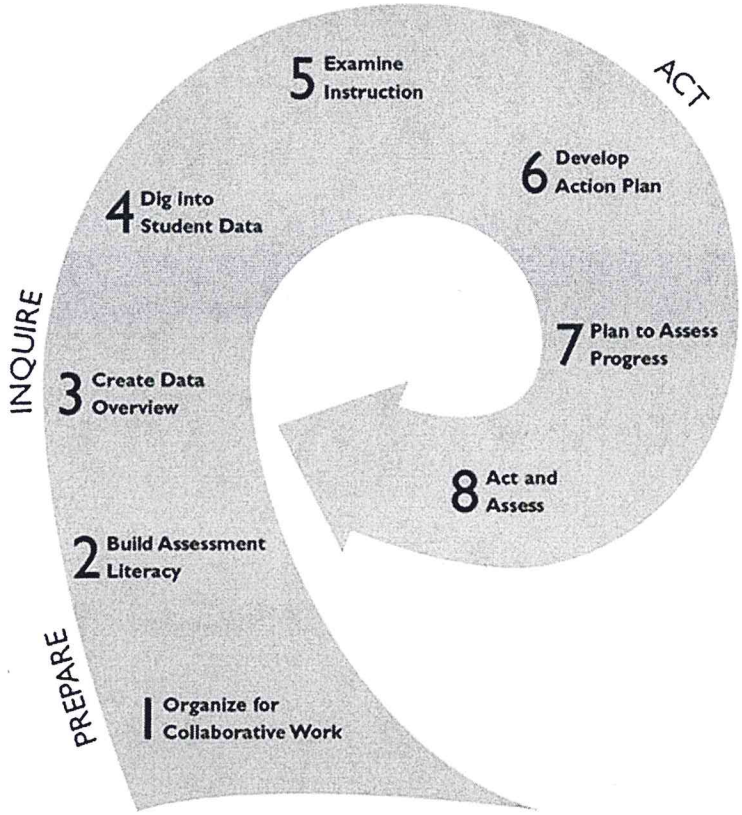
Eight Steps to Becoming Data Wise

Maren E. Oberman and Kathryn Parker Boudett

Here's how school-based teams get the most out of their data-inquiry meetings.

Ten years ago, a group of 19 researchers and practitioners from the Harvard Graduate School of Education and Boston Public Schools developed a process for organizing the core work of schools. That process allowed teachers to collaboratively study a wide range of evidence and use what they learn to improve instruction. Since then, schools around the world have used this "Data Wise" process to drive improvement, with much of that work happening in meetings (see fig. 1).

Figure 1. The Eight-Step Data Wise Improvement Process



Source: *Data Wise, Revised and Expanded Edition: A Step-by-Step Guide to Using Assessment Results to Improve Teaching and Learning* (p. 5), edited by Kathryn Parker Boudett, Elizabeth A. City, and Richard J. Murnane, 2013, Cambridge, MA: Harvard Education Press. Copyright © 2005 by The President and Fellows of Harvard College. Reprinted with permission.

As we've supported schools in using this process, we've heard from educators that there is often much room for improvement in the way school meetings are planned and facilitated. So we've field-tested strategies for improving the quality of meetings—especially those in which educators analyze data.

One key insight has been that for a meeting to be effective, everyone involved must know and understand the meeting's purpose. As noted in *Meeting Wise: Making the Most of Collaborative Time for Educators*, it's appropriate for educators in meetings "to feel challenged by the exchange of ideas and the weight of the objectives, but not to feel confused by a lack of clarity about purpose, process, or next steps."[1]

Here's where the Data Wise Improvement Process helps teams use their collaborative time well. Each of the eight steps has a clearly stated purpose, and each is a key part of a process that drives collaborative inquiry over time (see fig. 2). Data Wise clarifies the central purpose for each of a team's meetings—and focuses discussion and decision making during that meeting.

Figure 2. Purpose of Each Step of the Data Wise Improvement Process

Step	Purpose of this Step	How This Step Played Out at Highland Academy
1. Organize for collaborative work.	Establish structures and teams.	Schoolwide meeting agenda template and norms
2. Build assessment literacy.	Increase comfort with data.	Professional development on interpreting assessment reports related to literacy, the schoolwide focus area
3. Create data overview.	Identify a priority question.	"How do students approach finding the main idea in literature?"
4. Dig into student data.	Identify a learner-centered problem.	"When answering questions about literature, students tend to zoom in on characters and their feelings about them without stepping back to consider the main idea of the story."
5. Examine instruction.	Identify a problem of practice.	"As teachers, we tend to 'give away' the main idea of a story at the beginning of a lesson and devote most class time to encouraging students to identify personal connections to the characters."
6. Develop action plan.	Create an action plan.	Instructional Strategy: Close analytic reading
7. Plan to assess progress.	Create a plan to assess progress.	Short-term: In-class presentations Medium-term: Teacher-designed written assessments Long-term: State English Language Arts assessment
8. Act and assess.	Document improvements in teaching and learning and adjust as needed.	After implementing the instructional strategy, teachers noticed that students improved in their ability to identify the main idea orally but struggled to capture it in writing. Teachers continued to adjust their instruction, and by the end of the year most students were proficient in the "main idea" sub-skill on the state test.

How One School Used the Process

To illustrate this step-by-step approach, let's follow a school that we'll call Highland Academy. Our description of Highland's data analysis cycle is a composite case study drawing on our experience working with educators in various settings.

Step 1. Organize for collaborative work.

The base of the curving arrow in Figure 1 is extra wide because substantial foundational work must take place as a school prepares to engage in data inquiry. The purpose of Step 1 is to establish collaborative teams and structures that will enable educators to work together productively. This step involves adopting an improvement process, building a strong system of teams that communicate efficiently, and protecting time throughout the year for these teams to work. It also includes clarifying expectations for effective meetings, agreeing to norms for collaborative work, and acknowledging work style preferences. Finally, it entails creating a data inventory and an inventory of all the instructional initiatives already underway at a school, because no improvement effort happens in a vacuum.

At Highland Academy, a subgroup of the instructional leadership team was responsible for organizing data so that it was easily accessible and understandable to teachers, but the real data-analysis work was expected to happen in weekly grade-level team meetings. To ensure that those meetings were productive, the principal and her instructional leadership team kicked off the year with a full-day retreat before students came back to school. Throughout the day, faculty experienced a series of meetings that modeled the kind of structure and facilitation they would be expected to use in the coming year as they worked with data.

One of the day's most important activities was building shared meaning around three norms for interaction: assuming positive intentions, grounding statements in evidence, and taking an inquiry stance. Just as it sounds, assuming positive intentions means that each educator assumes every other member of the group is acting out of a desire to improve teaching and learning. Staying grounded in evidence means that colleagues rely on facts and low-inference information to guide their work (rather than previously held assumptions); taking an inquiry stance means that educators regularly ask one another questions—to understand, clarify, and stay grounded in evidence.

Teachers described what each norm would look like and feel like if they used it in daily interactions. They did a role-play to try out different ways they might hold one another accountable for following these norms. Throughout, the message was clear: Adhering to norms would help build the trust needed for the candid discussions about practice that a data-based improvement process entails.

Step 2. Build assessment literacy.

The purpose of this step is to increase staff members' comfort with the kinds of data they will be using throughout the inquiry process. Key tasks here involve reviewing the skills that will be tested on the assessments students will take and considering how these skills compare with the broader domain of skills and knowledge students need to master. Teachers also need to learn the principles of responsible data use and to practice studying assessment results.

The schoolwide focus for improvement at Highland was literacy. In the September faculty meeting, leaders facilitated grade-level team learning sessions in which teachers practiced reading and interpreting the literacy assessments their students would take. The goal of these sessions was to help teachers develop a common language to describe the kinds of inferences each data source would be best able to support. Teachers broke into groups, with each group assigned to look closely at one assessment and discuss what information it would give about student learning.

At one table, for example, teachers looked at a screening test that the school commonly used to place students in leveled reading groups. When they studied the assessment reports, they realized that the test did not provide enough detail to allow for truly strategic grouping of students with specific learning challenges.

Another set of teachers looked at a writing assessment. Although they agreed that it would allow them to make valid inferences about students' ability to construct grammatically correct sentences, they determined that it did not provide enough information to allow them to assess student progress in developing compelling arguments.

At the end of the faculty meeting, teachers at each table shared what they had learned about their assessment. Then the whole group engaged in a frank discussion about what the literacy assessments they currently used could—and could not—tell them about student learning.

Step 3. Create a data overview.

At this step, collaborative inquiry really begins as a broad faculty group identifies a priority question that members are committed to exploring. Typically, a small group of educators, such as the leadership team, conducts a thorough analysis of recent data pertaining to a focus area and finds a pattern—or "story"—they believe is important for the entire faculty to think about. They display the data in a few charts that make it easy for their colleagues to see the story. School leaders then engage teachers in making sense of the charts and identifying a specific question they want to dig into.

At Highland Academy, for instance, the leadership team culled through reports showing recent literacy assessment results and found a puzzle that they believed would lead to important conversations. They prepared a series of bar graphs that showed the percentage of students, by grade level, in the advanced, proficient, and warning levels on the state English language arts assessment, disaggregated by subskills, which included comprehension, vocabulary, finding the main idea, and identifying key details.

The leaders presented this data overview, and teachers discussed it in small cross-grade groups using the "I Notice, I Wonder" protocol. Having teachers start by making low-inference statements about what they noticed helped them practice the norm of grounding statements in evidence. Many teachers noted that they observed consistently low performance on "finding the main idea" questions for *fiction* texts, although students didn't have difficulty identifying the main idea of *nonfiction* texts. They then engaged in several rounds of wondering aloud about the results.

The purpose of the meeting wasn't to tell teachers what the data meant, but to allow them to express curiosity about why the data looked as they did and develop a sense of urgency to find out the answer.

The priority question Highland teachers settled on was, "How do students approach finding the main idea in literature?"

Step 4. Dig into student data.

Once a priority question is chosen, the purpose of subsequent meetings is to identify a learner-centered problem that directly relates to that question. This involves examining and analyzing a wide range of data in the target area, including student work samples, performance on benchmark assessments, observations of students, or conversations with them about their learning. From these sources of evidence, teachers come to a shared understanding of what the data show about students' learning and identify a common learning challenge.

When digging into student data, many learning challenges often surface. Instead of getting hung up trying to find "the" learner-centered problem, the trick is to select "a" learner-centered problem that, if solved, would be an important step forward.

Working in grade-level groups, the Highland teachers continued to meet regularly to look closely at student work samples. They examined the kinds of questions teachers asked students—both in class and for homework—and how students answered them. Those observing in primary grades noticed that when students were asked to draw pictures or write simple sentences that captured the main idea of a story, the students focused their pictures and sentences on the primary characters but didn't necessarily communicate the main idea or theme of the story itself. Similarly, teachers in upper grades noticed that students tended to describe the protagonists' character traits rather than talk about themes. When they did address the main idea or theme, students used a limited vocabulary.

Ultimately, the faculty settled on the following learner-centered problem: "When answering questions about literature, students zoom in on characters and their feelings about them without stepping back to consider the main idea of the story."

Step 5. Examine instruction.

Once data teams begin to examine instruction, their main objective is to articulate a problem of practice that may be contributing to the learner-centered problem. Key tasks at this point include examining a wide range of instructional data (including lesson plans, assignments, and assessments) and observing teachers in classrooms. Teacher teams conduct these observations. Although administrators may sometimes participate, when they do so, it's always with the understanding that the objective isn't to evaluate a teacher's practice for accountability purposes but to reach a shared understanding of what's happening in classrooms.

At Highland, several teachers videotaped their reading lessons. Then teachers watched portions of each video with an eye to understanding why students usually didn't articulate the main idea of stories. At first, it seemed paradoxical: In every video, the main idea of the story was an important lesson topic. But when they analyzed what teachers and students were doing and saying, they noticed that teachers opened their lessons by summarizing the main idea of a story instead of challenging students to identify it.

Lessons often included strategies for helping students identify literary devices and make inferences about characters' motivations—but not for helping them tackle big themes.

Teachers acknowledged that it felt easier to draw students in by having them get to know characters and explore their personalities. The faculty didn't want to lose these valuable parts of their teaching, but they wanted to find a better balance to ensure that students could also articulate main ideas. So they pinpointed this problem of practice: "As teachers, we tend to 'give away' the main idea of a story at the beginning of a lesson and devote most class time to encouraging students to identify personal connections to the characters."

Step 6. Develop an action plan.

At this point, educators create a complete, concise action plan for addressing the problem of practice. This work involves deciding on an instructional strategy, agreeing on what that strategy will look like in classrooms, and putting the plan in writing.

The Highland faculty researched instructional strategies for increasing students' ability to truly comprehend what they were reading. Although they had kicked off their inquiry cycle by looking at state test data, they were determined to select a strategy that would lead to the development of engaged and critical readers—not just a bump in test scores. In fact, they believed that if they continued to engage students as active participants in explaining the meaning of stories, students' comprehension would improve overall. So they chose a strategy called *close analytic reading*,[2] which promoted student agency in investigating and expressing main ideas.

These educators knew that simply naming the instructional strategy and recommending it wouldn't be enough to ensure teachers would implement it well. They worked with a literacy coach to determine what kinds of professional development they would need in order to do close analytic reading regularly in class. In their grade-level data teams, they created a simple action plan table that clarified who would be responsible for doing what and by when (see fig. 3).

Figure 3. Highland Action Plan for Improving Instruction

ACTION PLAN

Learner-centered problem: When answering questions about literature, students tend to zoom in on characters and their feelings about them without stepping back to consider the main idea of the story.

Problem of practice: As teachers, we tend to 'give away' the main idea of a story at the beginning of a lesson and devote most class time to encouraging students to identify personal connections to the characters.

Instructional strategy: Close Analytic Reading

Task	Who	When
Work with literacy coach to learn close analytical reading strategies and practice using them.	Grade-level team with literacy coach	Week of Oct. 19
Draft a lesson plan that incorporates close reading strategies.	Grade-level team leader	Oct. 26
Provide feedback on draft lesson plan.	Grade-level team	Week of Nov. 2
Teach lessons that incorporate new strategies and videotape classes.	Each team member	Nov. 3 – Nov. 17
Watch videos of team members teaching lessons that involve close analytic reading and discuss instructional adjustments.	Grade-level team	Nov. 23
Review student work and discuss instructional adjustments.	Grade-level team	Nov. 30
Adjust instruction, extend insights to other lessons.	Each team member	December

Step 7. Plan to assess progress.

The purpose of meetings at this stage is to identify the short-, medium-, and long-term data sources teachers will use to evaluate how the changes they implement will affect student learning. This work includes setting student learning goals for each type of assessment.

At Highland, teachers realized they'd need to generate their own informal assessments to quickly gauge how their first attempts were affecting student learning. For short-term data, they decided to have pairs of students give classroom presentations about the main idea of a story, with the goal of seeing whether students could orally describe a main idea.

For medium-term data, teachers created three assessments that challenged students to express the main idea of a story in writing. They set a goal that by the third assessment, all students would successfully write about the main idea in a way that met grade-level standards.

For long-term data, teachers decided to return to the same state assessment that had been featured in the initial data overview. They set a goal that all students would be proficient in this test's subskill of finding the main idea for both fiction and nonfiction texts.

Step 8. Acting and Assessing

Now it's time for team members to carry out the action plan and for teachers to assess the extent to which they are doing what they committed to, and whether student learning goals are being met. Inevitably at this stage, the team must make adjustments to the action plan or the instructional strategies; once those adjustments have been made and teaching and learning are clearly improving, it's time to celebrate the success of using data to fuel change!

After Highland students had practiced close analytic reading and been challenged to find the main idea of a story, teachers were pleased to see that they became more confident in offering ideas for a text's main idea. Students' confidence was assessed not only by teacher impressions during class, but also through conversations with students and observation data from teacher peers. Initially, students' ability to describe that idea in writing using appropriate literary vocabulary was weak. In team meetings, and with guidance from the literacy coach, teachers realized they needed to include more direct instruction on how to write about the main idea of a story in a compelling way. Both the principal and the literacy coach supported teachers by reviewing lesson plans, observing instruction, and engaging in reflective dialogue with teachers about their instructional practice.

To document their journey through the improvement process, each teacher team concluded the inquiry cycle by creating a slide presentation that demonstrated how students and teachers had improved their work, and they shared it with parents, students, other teachers, and administrators.

Making the Most of Meetings

Throughout their inquiry work, the Highland data teams held purposeful meetings that eventually raised student achievement—and helped teachers evolve into a learning community. *Purposeful* is the operative word. The Data Wise process, with its deliverables that clarify the purpose of meetings at each step and its emphasis on collaboration, provides schools with actionable strategies to support doing such work.

Authors' note: For more information on the Data Wise process, see *Data Wise, Revised and Expanded Edition: A Step-by-Step Guide to Using Assessment Results to Improve Teaching and Learning* by Kathryn Boudett, Elizabeth City, and Richard Murnane (Harvard Education Press, 2013). The Data Wise project has released a massive open online course (MOOC) available free through www.edX.org that explores many of the ideas contained in this article.

Endnotes

1 Boudett, K., & City, E. (2014). *Meeting Wise: Making the most of collaborative time for educators.* Cambridge, MA: Harvard Education Press, pp. 85–86.

2 Close analytic reading emphasizes questions that students can answer only by referring to the passage they have read; it combines attention to syntax with writing, listening, and speaking about the text.

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