Chapter 1

# Data-Driven Instruction



**One-on-One: 90 Seconds That Tell It All**

Under Principal Mike Mann's leadership, North Star High School's classrooms usually bustle with rigorous activity. On a typical day, students at this Newark, New Jersey, charter school busily analyze Toni Morrison's writing, complete calculus problems, or perform in community-engaged theater. Today, however, is different. Four times each year, North Star students complete interim assessments (IAs) that track their academic progress. And four times a year, teachers then use their classrooms to meet with instructional supervisors and discuss assessment results.

For Steven Chiger, one of North Star's 11th-grade English instructors, this means conferring with veteran teacher Beth Verrilli. Their conversation begins with a question from Beth: On a standard-by-standard level, what are you noticing about your students' performance?

Steve comments that the students struggle with basic, literal comprehension when they hit dense reading passages like those they'll encounter on the Scholastic Aptitude Test (SAT).

''What I've been teaching them isn't enough to get them over the bar,'' comments Steve.

Beth quickly responds, ''So what happens when they hit something they don't understand? What should we tell them?''

''Let me think for a second . . . .'' Steve pauses to consider. ''Well . . . we could say something similar to what we tell them in *Macbeth* when they don't understand.''

''Exactly,'' nods Beth.

Steve continues, noting that when the class reads *Macbeth*, ''We look for key phrases or words that give us some kind of idea. We know that we may not understand everything, but we can at least highlight those words that give us a foothold of the general gist: Is this something that is positive or negative? What were the sentences around it that we did understand? Does this fit within the context?''

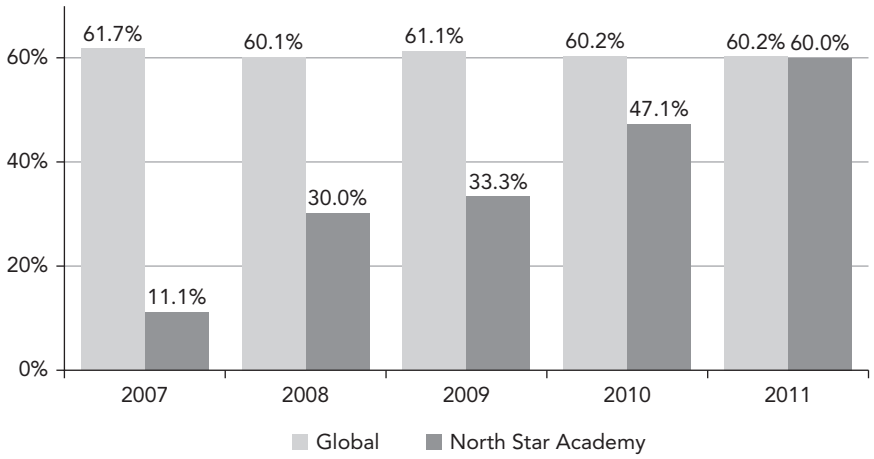
''Right,'' affirms Beth. ''So let's be explicit when we do that with *Macbeth*. This way,'' she continues, ''students will have a clear sense of what strategies to use on complex texts, and how to put them into place.''

Steve nods, writing detailed notes in the lesson plans he brought with him for the upcoming week. ''We could do that with Act 5 this coming week.''

WATCH Clip 1: Beth asks targeted questions to keep teacher Steve Chiger on track toward boosting students' reading comprehension.

In 90 seconds of discussion, Beth has guided Steve to a strategy that will markedly improve his instruction. By the end of their half-hour meeting, the pair will have found 9 or 10 such solutions: integrating nonfiction articles into novel units, teaching mini-lessons on the difference between tone and topic, and adding activities to build student ownership over classroom data. And in a year's worth of

**Figure 1.1** North Star AP Results, Percentage Passing 2007–2011




meetings like these, they found 30 or 40. Each week, Steve put one or two of these changes into place, gradually making his classroom more and more effective—so effective, in fact, that over the course of four years, the Advanced Placement (AP) English results in the school rocketed from 11 percent of students passing to 60 percent, even as the percentage of students taking the test quadrupled (see Figure 1.1).

At its essence, data-driven instruction (DDI) begins with and is sustained by meetings like the one we just observed between Beth and Steve, meetings at which principals or other designated instructional leaders create the highest-leverage, most game-changing 30-minute conversations possible—conversations that lead to results. When these meetings succeed, they are the apex of a data cycle that shifts a school's focus to the most fundamental question of education: not "Did we teach it?" but "Did the students learn it? And, if they didn't, how can we teach it so that they do?"

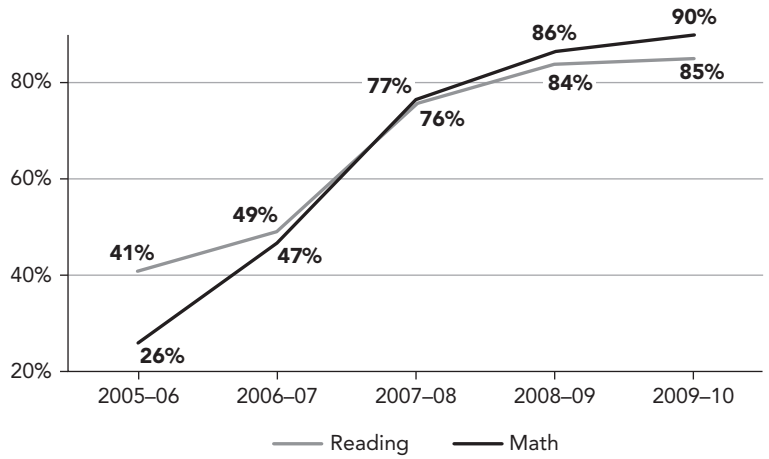
### Core Idea

Effective instruction is not about whether we taught it. It's about whether the students learned it.

Putting this simple principle to work fundamentally transforms schools. More important, it transforms *all types* of schools, from district schools to turnaround schools to charter schools, forging success stories that we will see throughout this chapter. Over the past 10 years, leaders nationwide who have implemented effective data-driven instruction at an incredible variety of schools have seen results. Leaders at schools like Morell Park Elementary School in Baltimore,[1] where scores rose 60 points in three years (see Figure 1.2). Leaders at schools like Thurgood Marshall High School in Washington, D.C., and Dodge Elementary School in Chicago, where scores rose 40 points over a five-year span.

As reported in my previous book, *Driven by Data*, there are myriad examples.[2] After spending 10 years observing such systems, I am convinced that data-driven instruction is the single most effective use of a school leader's time. Or, as Beth's principal Mike Mann says, "What is most important is the actual outcome for the student, and data—in its many forms—are the only way to ensure the school is achieving this." Yet knowing that data matter is one thing; truly using them to drive instruction and achieve significant growth is another. What does it take to build a school where 30-minute conversations like Beth's and Steve's can get such dramatic results? For principals like Mike Mann, it takes creating a system of regular data conferences and training teachers in data analysis. For department

**Figure 1.2** Maryland State Assessment Percentage of Morrell Park Students At or Above Proficiency



chairs like Beth, it takes asking probing questions and deeply considering the results Steve's assessments produce. To reach this point, though, both Beth and Steve follow a set model.

## THE MODEL

Successful data-driven instruction depends on four fundamental keys:

1. *Assessment*. Define the roadmap for rigor.
2. *Analysis*. Determine where students are struggling and why.
3. *Action*. Implement new teaching plans to respond to this analysis.
4. *Systems*. Create systems and procedures to ensure continual data-driven improvement.

In the pages that follow, we look at how North Star leaders Mike Mann (the principal) and Beth Verrilli (the English department chair) put each of these keys into place to make data-driven instruction work.

### Keys to Data-Driven Instruction

1. *Assessment.* Define the roadmap for rigor.
2. *Analysis.* Determine where students are struggling and why.
3. *Action.* Implement new teaching plans to respond to this analysis.
4. *Systems.* Create systems and procedures to ensure continual data-driven improvement.

## ASSESSMENT: THE ROADMAP TO RIGOR

Most schools strive to offer instructional rigor. But to make rigor a goal raises the question: What is rigor in instruction? Authors from Daggett to DuFour have offered definitions of rigor.[3] In its simplest form, rigor is as the Adams 50 School District in Colorado has defined it: "An expectation that students will demonstrate success with consistent high standards for academic achievement."[4] Yet how can leaders know where the goal for rigor should be set? How can schools determine whether students have learned what they need?

## Defining the Roadmap

In pursuit of rigor, leaders often look to state or national standards. Match teaching with these standards, the logic goes, and students will be prepared. The current landscape of the Common Core, whose standards purport to raise instructional rigor across the United States, particularly reflects this thought process. The problem with standards, however, is that they say little about what students must actually master. Consider the following Common Core standard, one that is directly linked to Steve's English class:

> Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings (include Shakespeare as well as other authors.)[5]

Seems clear enough. But consider the four possible question prompts in "The Power of Assessment" on page 27, each based around *Macbeth*.

Each question meets the Common Core standard, requiring students to "determine the meaning of words and phrases." Yet the skills required to answer each differ enormously. Question 1 is a relatively straightforward vocabulary-in-context question. The correct response, C, directly connects to both the surrounding sentence and the passage's larger meaning; the incorrect answers have no direct support in the passage. Question 2 presents somewhat more of a challenge, since two of the incorrect responses ("cruel" and "unfamiliar") enjoy some support in the text. To find the correct choice, students will need to figure out which idea *most* relates to the passage; in this case, answer choice B. Question 3, on the other hand, is significantly more difficult, requiring that students interpret the correct meanings of two phrases and select the answer choice that captures both aspects of their connection, B. Two of the "distractor" answers are partially correct, which further complicates this process. Finally, Question 4 requires that students combine vocabulary in context understanding with the larger connotative and figurative meanings of the phrases. Even if students correctly identify the meaning of the phrase "barren sceptre," they may still select answer choice B, unless they can discern that this phrase is not meant as a work of satire, which leaves the best answer as D. Of the four, this is the sort of question that appears on Advanced Placement English examinations.

## The Power of Assessment

### Assessment Questions for a Passage from *Macbeth*

Directions: In this scene, Macbeth is discussing a prophecy he received from the witches. Read the passage, then answer the questions that follow:

> MACBETH:
>
> They hailed him [Banquo] father to a line of kings
>
> Upon my head they placed a fruitless crown, And put a barren sceptre in my gripe, Thence to be wrench'd with an unlineal hand, No son of mine succeeding. If 't be so, For Banquo's issue have I filed my mind; For them the gracious Duncan have I murder'd.

1. What does it mean that Macbeth has a ''fruitless crown''?
   A. Macbeth will soon die.
   B. Macbeth will become a slave.
   C. Macbeth will not be a successful king.
   D. Macbeth will take a long journey.
2. As used in the passage, the word *unlineal* most nearly means:
   A. Cruel to Macbeth
   B. Unrelated to Macbeth
   C. Unfamiliar to Macbeth
   D. United with Macbeth
3. How does the phrase ''barren sceptre'' connect to the phrase ''fruitless crown''?
   A. Both are symbols of kingship.
   B. Both connect authority with infertility.
   C. Both reflect Macbeth's leadership
   D. Both represent negative events.
4. The description of Macbeth's ''barren sceptre'' contributes to the unity of the passage in which of the following ways?
   A. As a parallel between Macbeth's possible children and Banquo's possible children
   B. As a satirical comment on challenges Macbeth will face with infertility
   C. A comparison between Macbeth's strong formal authority and his lack of popular influence
   D. As an ironic contrast between Macbeth's power and his inability to produce future kings

These examples drive home the essential lesson you need to know about assessment: standards are meaningless until you define how to assess them.

**Core Idea**

Standards are meaningless until you define how to assess them. Assessments, therefore, are the roadmap to rigor.

Standards alone cannot set the bar for rigor. If teachers know only that students should "determine the meaning of words and phrases," they may only teach to the rigor of questions like number 1, leaving students hopelessly unprepared for questions like number 4. Even sample lesson plans do not suffice. Only in the assessment do we define the rigor.

This distinction can be clearly noted in comparing Steve Chiger's planning process in the opening vignette with that of a traditional teacher, whom we'll call Mr. Smith. Mr. Smith consults the scope and sequence of his curriculum at the beginning of the week and plans his lessons to meet those standards.[6] Without a specific understanding of what sort of assessment item students will need to address, he may build his weekly quiz around questions like number 1 or 2. Doing so may feel easier in the moment, especially if Mr. Smith feels students are not prepared for the challenges of a question like number 4. Simply put, standards alone cannot guarantee that students will learn what they need to—not even when Mr. Smith combines them with good intentions and preparation.

Now consider Steve's planning process. At the beginning of the week he consults the assessment that he will give at the end of the week, which is aligned to the SAT and AP English exams. This assessment has been created by North Star teachers to align with the year-end test and is meant to determine whether students are mastering the core skills they need to. He notes that questions 2 and 4 are on the test. So he asks himself the fundamental question, "What do I need to teach for my students to be able to master questions like number 4?" With the assessment as the roadmap to rigor, Steve's teaching process has been transformed. Write the test first, and the way forward is clear. Wait to write the test until the lessons have been taught, though, and you will end up following the route of Mr. Smith. You will test for what you taught, not for what students need.

### Core Idea

Write the assessment first, then ask the question: ''What do I need to teach for my students to be able to master the questions on that assessment?''

The assessment-first approach happens in every classroom at North Star's high school. Rather than waste time parsing vague standards, department chairs and teachers like Beth and Steve go straight to the end game: Advanced Placement and other college-ready assessments. By analyzing the specific questions posed on the test, they break down the specific skills—thematic comparison, identification of authorial intent, close textual analysis—that students need in order to succeed on those tests. The point bears stressing: college-ready assessments—not just a list of standards—are Beth and Steve's guide toward rigor.

Advanced Placement and/or International Baccalaureate classes offer a great opportunity for schools to define college-ready rigor, but they are far from the only opportunity. College placement exams (the ones that determine need for remediation) and colleges' expectations for research papers are just two other great sources for well-defined, assessment-driven, college-ready rigor. Indeed, at North Star, and at schools that achieve similar results, well-designed interim assessments aligned to the end game of college rigor are crucial to driving significant student gains. What should these assessments look like? Let's find out.

## Building Your Own Assessments

At the heart of every top-tier school we examined lay high-quality assessments that meet the following criteria:

### Interim

Great schools schedule interim assessments to identify problems when change is still possible. Year-end tests are autopsies, not assessments: they explain what went wrong after it is too late to change course. The top-tier school leaders in this book gave schoolwide interim assessments four to six times a year, and never more than eight weeks apart. This distribution rate allowed time for teachers to make changes, while not overwhelming students (or faculty!) with ''test fatigue.''[7]

## A Word On . . . Rigor, Multiple-Choice, and Open-Ended Responses

One of the most common criticisms against data-driven analysis is that it reduces learning to ''rote-level'' or ''basic'' skills, preventing students from engaging in ''real'' learning. Underneath that critique is a belief that items like multiple-choice questions are inherently *not* rigorous and are lacking in value. Is that assumption valid? Take another look at the question number 4 about Macbeth:

4. The description of Macbeth's ''barren sceptre'' contributes to the unity of the passage in which of the following ways?
   A. As a parallel between Macbeth's possible children and Banquo's possible children
   B. As a satirical comment on challenges Macbeth will face with infertility
   C. A comparison between Macbeth's strong formal authority and his lack of popular influence
   D. As an ironic contrast between Macbeth's power and his inability to produce future kings

Consider the skills required to answer this question correctly. Students would need a deep understanding of numerous literary and stylistic devices, the ability to discern meaning using indirect context clues, and the ability to distinguish between competing ideas based on their degrees of evidentiary support. If a rigorous understanding of English is the goal, it's hard to imagine a better way to reach it.

Consider the alternative options: having students write an essay or short answer to one of the following prompts:

- Analyze the following passage of Shakespeare. How does it contribute to one of the central themes of *Macbeth*?
- What does Shakespeare mean by a ''barren sceptre''? Cite evidence from the text.

These are quality prompts that could be used to produce a writing sample. The prompt, however, is not what determines the rigor; it is how you score the response. In an open-ended question, the rubric and the text difficulty determine the rigor of the question.

In the end, the multiple-choice question and open-ended question complement each other in very important ways. One requires you to generate your own thesis, and the other asks you to choose between viable theses—with one being the best option. Students need both of those skills: the ability to discern between shades of gray, and the ability to generate their own arguments. To claim that only multiple-choice questions or only essays can capture both is to miss opportunities to develop a student's intellect fully.

### Common

If assessments define rigor, then they must be common across all classes and grade levels. Otherwise, we cannot guarantee equal rigor in each classroom. ''Common assessments are crucial to keeping all classes at a high level,'' Beth explained. Teachers occasionally object to this requirement because it creates standards within their classrooms that, to some extent, they cannot control. However, the essential benefit of common assessments—ensuring that all students, in all classes, receive the level of rigor they need—is too valuable to compromise. As Mike Mann, principal of the high school, explains, ''Measuring outcomes is only useful if you know what the target should be. If the target is different in each classroom, then we have no way to know how students are doing across the cohort relatively to each other. The students are stuck with varying degrees of rigor depending on which teacher they have. That's not fair to our students.''

### Aligned

To ensure that they are sufficiently rigorous, interim assessments must be carefully aligned to the end-goal assessments of classes. Establishing that alignment raises the critical question for any teacher or leader: To what end goal for your students will you aspire? It is not enough to say that we want critical thinking or problem solving for our students. Too many schools have fallen into the trap of thinking they're making progress simply by espousing terms like these. Your assessment will define what you mean, and that level of definition will get you results. There are a few levels of alignment:

*State test–aligned*. I do not know of students who can fail their state tests and be ready for college. That being said, there are many students who pass their state tests and are *still* not ready to attend or succeed in college. State tests, then, are a necessary but insufficient step toward college readiness. Making sure that students can meet this bar is critical. If their ability to do so is in question, then part or most of the interim assessment should be aligned to the preliminary rigor of the state test.

*College ready–aligned*. This is the ultimate goal. For high school, there are many assessments already well defined: Advanced Placement, International Baccalaureate, SAT. These can be complemented by performance assessments

## Blazing a Trail: Beth's Approach to ''College-Ready Rigor'' on Interim Assessments

- Beth's first task is to define, in concrete terms, what it means to design an assessment with ''college-ready rigor.'' Although the specific steps may vary depending on the content area, there are several common features. For example, when designing interim assessments for her English class, Beth notes that the search begins with existing high-rigor materials: ''It starts with taking every practice AP and SAT exam out there and looking at the types of passages they have: the lengths, whether fiction or nonfiction; if nonfiction, then what type of nonfiction.''
- Once she's identified the right materials, Beth then looks to the type of questions being asked and their level of challenge: literal comprehension, main idea, tone, and perspective.
- Finally, based on the level of challenge identified in order to be college ready, Beth and the English department adapt their curricula accordingly. ''The early high school years serve as a bridge between the eighth-grade state test level of challenge and the more rigorous demands of college-ready assessments,'' Beth explains. ''Because we know where our end goal is in Year 4, it makes planning Years 1 and 2 much easier.''

like a well-designed anchor research paper that all students are required to write. For elementary and middle schools, the task is less well defined, but the leaders cited in this book aspired for above-grade-level proficiency for all their students. That takes the form of integrating algebra earlier into the math curriculum (and assessing accordingly) or setting higher targets for proficiency on leveled reading assessments. In each case, the leaders were not satisfied with state proficiency alone.

*Curriculum sequence–aligned*. Once you have an assessment that establishes the appropriate level of rigor, then you need to make sure that the assessment is aligned to your curriculum. In the six to eight weeks prior to each assessment, does your curriculum teach the standards that will appear on that assessment? If not, teachers will rightfully protest that you're not testing what they're teaching—which defeats the whole purpose of interim assessments.

Developing interim assessments that meet these high bars can, of course, be challenging. One obvious solution is for schools to create their own. This was the approach that Art Worrell, history teacher and department chair at North Star, took in designing his interim assessments. ''Ultimately, going to the source was worth it for me,'' Art asserts, ''especially in figuring out open-ended document-based questions.'' In this way, teachers like Art ensure that their interim assessments are aligned, relevant, and ready to track student progress.

The drawback, however, is that the whole-cloth creation of new assessments can be incredibly time consuming, especially if a school has not done it before. A second possibility, then, is for leaders to request interim assessments from schools that have already successfully implemented data-driven instruction. This will grow increasingly feasible as the Common Core takes root, influencing more state assessments. For the most part, these schools are happy to share their approach to testing, saving their colleagues an incredible amount of time.

That said, schools must make sure that any ''borrowed'' assessments they borrow are well aligned. Mike Mann concisely sums up the argument: ''Each state has different benchmarks and year-end assessments, and each school and district has a separate sequence of teaching its standards. If you're taking tests from elsewhere, there's a good chance your curriculum won't line up chronologically.'' This will leave you with one of two options: either change your curriculum sequence to match that of the interim assessment, or change your interim assessment to test standards in the same chronological order as your curriculum.

Finally, for situations in which neither creating nor borrowing assessments is an option, many companies sell interim assessments. Buying from third parties is the least time-intensive approach to building a system of assessment. Yet as tempting as this method may be, ''store-bought'' assessments are often not aligned enough to your end-goal assessments to ensure that students reach appropriate end goals. AP exams and SAT questions are far more rigorous and challenging than many of the ones drafted by commercial test makers. Steve, whose previous school used such assessments, suggests this policy: ''When it comes to third-party tests, buyer beware.''

## A Word On . . . ''Teaching to the Test''

One frequent objection to data-driven instruction is that a focus on assessment amounts to empty ''teaching to the test.'' From this point of view, data force teachers to choose between ''real'' teaching and irrelevant test preparation. If the assessments a school uses are not rigorous enough, or if they are not aligned to what students need to know, then this is a valid critique. However, when interim assessments are well constructed and college ready, they are *an unparalleled resource* in driving student learning. If you want students to be able to write a six- to eight-page paper stating an original argument, why wouldn't you teach so as to get them to do so effectively? In the same way, if students will need to solve a quadratic equation embedded with an area problem in the SAT, shouldn't we teach them how to do that, thus preparing them for success on the SAT?

More pragmatically, in the modern United States, a student's access to admission into the college of his or her choice, and to entry into almost any major career field—from firefighting to medicine—depends significantly upon his or her ability to do well on assessments. One can argue that society ought to work differently, but as educators, we must prepare students to succeed in the real world around them. Here, this means that students who are not prepared for high-quality end-goal assessments have not learned what they need.

In the end, data-driven instruction is not about teaching to the test: it is about testing the teaching. That makes all the difference.

## Feasibility Tip: Working Around Imperfect but Mandated Interim Assessments or Pacing Guides

In many large public districts, principals may be required to follow pacing guides that correspond to given schedules or use prefabricated district assessments. If these assessments align with the criteria just outlined, then they will be useful without adaptation. What if they don't, though? Well, fortunately, we've seen public schools use a number of strategies to build effective data systems regardless of what assessments are already in place. Here are a few of the most common approaches they've taken:

- Use the mandated assessment as a base, but on the day of administration, add additional questions you've created that cover the standards that are missing.
- Administer the mandated assessments, but don't spend any time analyzing them—tell teachers and students they're just practice tests. Prioritize, instead, a different interim assessment that meets the criteria established in this book.

## ANALYSIS: TEST IN HAND, FACE TO FACE

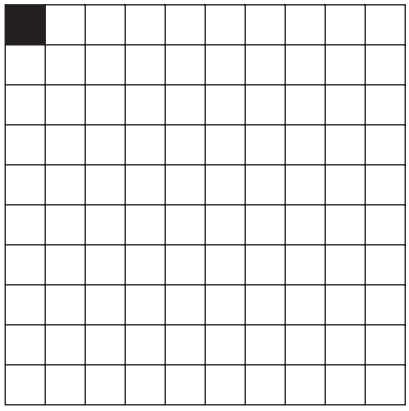
If assessments set the roadmap for learning, then data analysis lets you know if you're following the path. How a leader uses the time he or she spends analyzing the assessments with teachers is what dictates the results. Beth and Steve demonstrated this in the opening vignette: effective 30-minute analysis meetings between leaders and teachers are the highest-leverage time a leader can spend. Why? Because they can drive 80 percent of all instruction in those few minutes. Here's how.

Consider a principal who is committed to observing class instructions as often as possible. If the principal observed every teacher in his or her school for 15 minutes a week, she would be among the most diligent school leaders in the country. Yet even at this breakneck pace, she would see only 1 percent of the week's learning and teaching time. Don't believe it? Do the math:

- Typical teaching load: 5 classes/day, 50 minutes each
- Total minutes of instruction per week: 5 classes/day × 50 minutes × 5 days/week = 1,250 minutes
- One classroom observation/week: 15 minutes
- 15 minutes/1,200 minutes total instruction = 1.2 percent observation of instruction

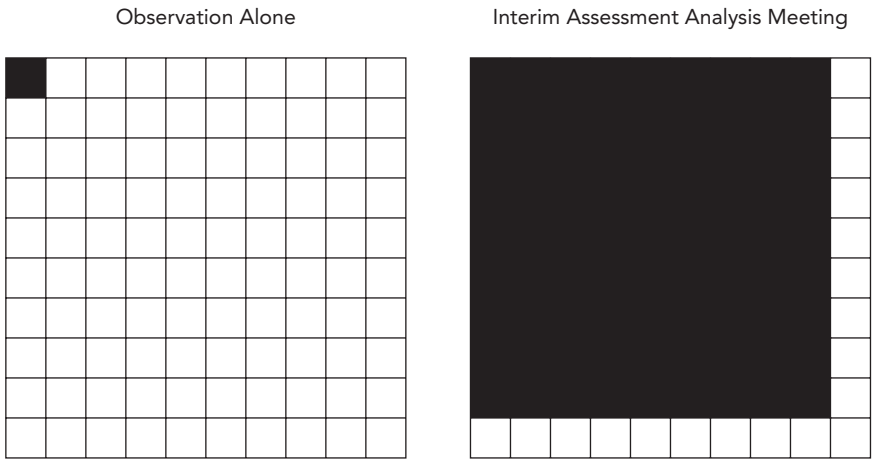
Figure 1.3 is a grid of the total percentage of observation of each teacher's lessons given weekly 15-minute observations.

**Figure 1.3** Observation Alone



For all her attentiveness, this principal is watching her students through a peephole. Even if leaders are able to identify the most critical 1 percent with these observations, they would still need to make broad, vague conjectures about the standards learned the other 99 percent of the time.

Now consider Beth, who conducts data meetings with Steve after each interim assessment. By using well-aligned interim assessments in leading analysis meetings, Beth can gauge *six to eight full weeks of teaching in 30 minutes.* Indeed, even if the assessment captures only 80 percent of student learning (given that no assessment can capture 100 percent of the learning in a class), leaders have still changed the percentage of instruction they observe from 1 percent . . . to a revolutionary 80 percent.




If traditional observations are glimpsed through a peephole, data analysis throws open the doors. "I don't think tests are perfect," Beth says. "But they capture much, much more than I otherwise would be able to see."[8]

### Core Idea

A dedicated school leader who does weekly observations of all teachers will see . . . 1 percent of instruction. Data analysis meetings see . . . 80 percent of the student learning.

If traditional observations are glimpsed through a peephole, data analysis throws open the doors.

## Precursors to Effective Analysis Meetings

Frequently, data analysis goes no further than the "scoreboard": Have results gone up, or have they gone down? Such analysis is almost useless. Imagine a soccer coach who skips her team's games and learns the final scores from a newspaper. At best, her advice would be limited to empty platitudes: "Get more goals," "Work harder," "Work on defense." Leaders who look only to a whole class's test scores commit the same error: they see the scoreboard, but never the match. Though they use data, they are not data driven.

By contrast, leaders like Beth Verrilli use interim assessments as a springboard for entering a more probing and detailed discussion of student strengths and weaknesses. Before meeting with Steve, Beth had examined assessments on a question-by-question and student-by-student basis. As Beth succinctly notes, "The more prepared you are, the more fruitful information comes out of the meeting." But before Beth looks at the data, she relies on two key structures: data reports and fast turnarounds.

### Data Reports

Great data analysis starts from clear and intuitive data reports: one-page summaries, in table form, of each student's performance on the assessment. At a minimum, these reports must show class performance at four levels:

1. *Question level:* How students performed on each question and what wrong answer choices they made. This is incredibly important; Beth notes, "On a standard like main idea, it's not enough to know the overall percentage. I need to know what makes them struggle: Have they not mastered the skill of main idea in general, or was it the content of this passage that they were unprepared for, the challenge of new vocabulary, a challenging answer choice, or other factors?"
2. *Skill or standard level:* How students performed on each standard or skill.
3. *Student level:* How well each individual student performed.
4. *Global or whole-class level:* How well the class performed.

These templates for data reports are concise and easy to understand, allowing teachers to input and interpret data with as small of a learning curve as possible. "We're always looking to the 'intuition' test," Beth Verrilli explains, "seeing if

**Table 1.1** Sample Data Report

| | | Question Number | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Correct Answer | | d | a | c | c | 1 | 1 | c | 1 | 1 | 1 | b | b |
| | | Standard | | Sentence Completion | Sentence Completion | Sentence Completion | Sentence Completion | Sentence Completion | Essay | Extended Reasoning | Literal Comprehension | Perspective | Literal Comprehension | Literal Comprehension | Main Idea |
| First Name | Last Name | Multiple Choice | Overall Proficiency | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | | 75% | 75% | | | b | | | | | d | | c | | |
| Kate | Smith | 100% | 100% | | | | | | | | | | | | |
| Kendra | Jones | 75% | 75% | | | | | | | | c | | a | c | |
| Sarah | Alba | 67% | 67% | | | | | d | | | d | | d | d | |
| Miguel | Menendez | 83% | 83% | | | | | | | | | c | c | | |
| Charles | Wynn | 83% | 83% | | | | | | | | | c | c | | |
| Percentage correct | | 80% | 80% | **100%** | **100%** | **80%** | **100%** | **80%** | **100%** | **100%** | 40% | **80%** | 20% | 60% | **100%** |

people can pick up the template and use it effectively.'' If the data report is not intuitive, it will not be informative. Table 1.1 presents a sample data report, and we've also included a few on the DVD.

### Fast Turnaround

Each day's delay in scoring assessments and creating data reports is a lost opportunity. That's why the leaders described in this book all make fast turnaround a major priority. As Beth Verrilli notes, ''By ensuring that all tests are scored within three days, we're able to quickly shift into problem-solving mode.'' Ideally, assessment reports should be prepared within 48 hours of the assessment's distribution. This is an ambitious target, but one that can be met with an ''all-hands-on-deck'' approach. The leaders studied came up with a number of creative ways to make turnaround faster, including:

- Having support staff help with data entry
- Having parent volunteers
- Creating half-day schedules to give teachers extra time to grade assessments

Whatever solution is used, it is vital that assessment turnaround receive high priority. Until they're entered, data are useless.

## Analyze in Depth

With data in hand, Beth and Steve can begin their analysis of the results. To do so, they utilize a core set of strategies that ensure that they find the information that matters most. See ''Going Deep: Effective Analysis'' on page 40.

### The Power of Training

Of course, these suggestions are just starting points. Ideally, before any analysis meetings occur, teachers have had the opportunity to learn the fundamentals of assessment analysis hands-on. This means school leaders must, at a minimum, model how to analyze data. At North Star, Mike Mann makes sure that all new teachers participate in a detailed professional development session on data-driven instruction before school begins. ''Truly effective data-driven instruction starts from transparency,'' Mike stresses. ''When our teachers understand that the goal is not 'teaching to the test' but rather aligning our practices with what our kids

## Going Deep: Effective Analysis

**Make a Solid Hypothesis**

Look at specific questions:

- Did students all choose the same wrong answer? Why or why not?
- What misunderstandings do the students' errors reveal? What do you think students were doing wrong here?
- What were all the steps students needed to be able to do in order to answer this question correctly? Within those steps, where does it appear that student mastery broke down?

Look *within* standards:

- On questions that measured the same standard, were students better on some questions than on others?
- If so, how do those questions differ in difficulty? Why did students do better on one than on another?

Compare *similar* standards:

- Do the results on one standard influence the other?

**Test Your Hypothesis**

- Review written student work. Do errors match your hypothesis of why students are struggling?
- Ask students how they solved the problem. Do their errors still match your hypothesis?

**Make Explicit Action Steps**

- *Explicit instruction*. What would you have to teach to overcome these misunderstandings? How will you teach the information differently this time than you did the last time?
- *Assignments and activities*. What activities or assignments will students need to practice this new skill to the point of mastery?
- *Assessment and checks for understanding*. How will you assess students and check for understanding during the lesson itself?

**Repeat the Process for Struggling and Special Education Students**

*First line of action:* Grab the low-hanging fruit first.

- Sort data by students' scores. Are there questions that only the struggling students are getting wrong?
- What are all the steps the students need to take to answer these questions correctly? Which of these steps need to be made more explicit to the students?

- What sort of practice do the students need to master this standard—heavy repetition of computational skills? Following a multi-step protocol?

*Second line of action:* Provide in-class support.

- What are the standards that will be reviewed or retaught for the whole class?
- Are the struggling students' misunderstandings different than those of the rest of the students on these standards?
- What additional support or steps will the struggling students need when these standards are being reviewed?

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need, it lets us build the buy-in we need.'' To launch your own training session in data-driven instruction, see *Driven by Data*—it includes all the resources and materials you'll need.[9]

### Preparing for Analysis Meetings: Using the Back Pocket

Legend has it that when the time came for the Constitutional Convention, James Madison, widely considered the Constitution's ''father,'' was nervous. Prior to the start of the convention, he had drafted his own vision for the founding document, and he feared the others might reject his proposal as pretentious and dismiss it out of hand, regardless of its merits. Madison faced a choice: present and argue for the document he had written, or leave the Constitution in his ''back pocket'' and guide delegates to independently reach and embrace his solution as their own. Madison chose the latter approach, and the result was an enduring document that included nearly all of his original key proposals.

Whether or not this story is true, it reflects an incredibly important insight: highly effective leaders guide from the back pocket. The strategy works not only for political leaders, but for school leaders, too. A case in point: after analyzing Steve's data report, Beth had many ideas of her own about how Steve needed to adjust his teaching tactics. Yet, rather than simply ''dictate'' those solutions to Steve, Beth keeps the answers in her back pocket and instead leads by asking questions. Consider just two minutes of their conference:

> ''So what happens when they hit something they don't understand? What should we tell them?''

"So let's be explicit when we do that [the new action step] with *Macbeth*."

"Could we follow the *Macbeth* activity with an SAT passage to make explicit what you're doing with Shakespearean language that's giving you trouble? You can use similar strategies when you hit troublesome passages on the SAT." [Waits for teacher to write it down]

"Do you think they're paraphrasing when they get into trouble, or do you think that [strategy] needs to be explicit?"

REWATCH Clip 1: Revisit Beth's meeting with Steve and write down all of the questions that she asks.

Look at Steve's data in Table 1.2. Based on the questions shown in this data report, let's begin by analyzing the data from the standards level.

**Table 1.2** Standards-Level Analysis

| | Sentence Completion | Main Idea | Extended Reasoning | Supporting Details | Vocabulary in Context |
|---|---|---|---|---|---|
| **% Correct** | 73% | 55% | **76%** | 60% | 75% |

It's apparent that main idea is a serious challenge for Steve's students. Yet Beth's analysis doesn't stop at noting the most troublesome standards; it also takes into account the specific questions involved. When Beth examines the four questions coded as "main idea," she finds something unexpected:

| Question Number | % Correct |
|---|---|
| 10 | 83% |
| 19 | 23% |
| 29 | 45% |
| 32 | 63% |

The students' problem is not with every aspect of main idea, then, but only with certain types of main idea questions. Having determined as much, Beth then returns to the text of the test itself. Question 19, which only 23 percent of students answered correctly, is a logical place for her to start. The question concerns a short passage on the work of Edgar Allan Poe. It reads:

1. The author's purpose in this passage is to (correct answer appears in **boldface**):

   A. Detail the myths and inconsistencies surrounding the personal life of a renowned author

   B. Demonstrate that professional authors can succeed despite scathing criticism

   C. Call attention to the fact that literary critics have erred in their judgment of Poe's writing

   D. Argue that Poe's early negative publicity had continued repercussions throughout his writing career

   E. **Show that contradictions in Poe's life and work do not detract from his popularity**

Once she's identified the key question at issue, Beth takes a final, crucial step: she considers which wrong answer students selected. Looking back to the data, she sees an unmistakable pattern:

| | |
|---|---|
| Answer A | 58% |
| Answer B | 0% |
| Answer C | 0% |
| Answer D | 8% |
| Answer E | 33% |

Based on this data, Beth realizes that most students were drawn to answer choice A. Given the amount of time the passage spends discussing inconsistencies in Poe's work, this answer would seem plausible, especially if it were read quickly. Yet the final answer choice, answer E, is the only one to take into account the passage's substantial discussion of Poe's popularity and legacy, a key part of the text that answer choice A misses. In short, students are selecting a "narrow"

answer that does not cover the whole passage. Question 29, which saw similarly low levels of student performance, revealed the same error pattern: when students were wrong, their answers did not encompass everything they had read.

Informed by her own analysis, Beth arrives at the analysis meeting with a good sense of how Steve can help his students learn main idea correctly. She knows a few specific strategies that will be effective: prompting students to distinguish ideas that are too limited from those that are sufficiently broad, for instance; and requiring students to link a main idea they've identified back to each paragraph in a text. But just as important as the strategies Beth will suggest are the ones she will not. Why, for example, won't she recommend repeated practice on discarding overly broad main ideas? Because, while developing too-broad main ideas is an error that English students often make, Beth knows it's not one of the mistakes that Steve's English students made. Data get their real clout from the opportunity they give you to analyze student learning at this high of a zoom level—not merely noting which standards students struggled with, but deriving exactly what the questions those students missed were asking.

Even for school leaders who have learned to analyze data closely, guiding teachers to do the same can be quite difficult. Fortunately, outstanding instructional leaders like Beth can provide concrete guidelines to explain how they make "back pocket" leadership a school-changing practice:

- *Analyze teacher's results* before *the meeting*. Premeeting analysis is essential to ensure that leaders enter the meeting with a good idea of where the root causes of problems lie—and of how teachers might fix such problems. Before the analysis meeting, Mike Mann makes sure that both teachers and leaders complete their own analyses of the data report. From Mike's perspective, the reason is simple: "The more intimately teachers are involved in the entire data-driven process, the more likely they are to incorporate the results into their plans and into their teaching."
- *When needed, get help with content expertise*. If school leaders do not have the instructional expertise to analyze certain content areas, they should seek help. This help can come from a coach, department chair, strong teacher, or someone from outside the school. At the high school level, department chairs are essential, because few (if any) high school principals can possibly master all foreign languages, sciences, and other subjects. Mike Mann, for example, asks

Spanish department chair Lina Zapata to lead data conferences with Spanish department faculty. Taking the time to find content help when needed is vital to making analysis meetings as productive as possible.

### Leading Analysis Meetings: Diving Deep

For meaningful analysis to occur, leaders must ask carefully prepared questions at the level of specific assessment items. Beth's years of leadership experience, of course, have brought her a keen sense of which questions she should ask, but she and leaders like her do turn to a few common sets of prompts that tend to drive deep analysis. Regardless of how long you've been leading a school, or using data to drive that school's progress, the following examples we've listed are likely to help you lead analysis meetings effectively. (For an expanded list, see "Leading Effective Analysis Meetings" on the DVD.)

- "Let's look at question number _____. What do you think the students are doing wrong here?"
- "What did the students need to be able to do to get that question right? How was this more than what they are able to do with you in class?"
- "What's so interesting is that they did really well on question number _____ but struggled with question number _____ on the same standard. Why do you think that is?"

To see another school leader put this into practice, watch Juliana Worrell, principal of Fairmount Elementary School, push her teachers to identify the error their students were making in decoding.

WATCH Clip 2: Assessment data lets Juliana Worrell guide Yasmin Vargas toward planning purposefully.

Note that the questions you use will depend on the quality of self-reflection and analysis of the teachers. Beth notes, "Reviewing the preliminary action plans of the teachers in advance of the meeting helps you identify where you will most need to support the teacher."

### A Word On . . . Analysis Meeting Size

Analysis meetings can occur either one on one or in teacher teams. The role of the leader changes slightly depending on the size of the meeting, but the keys to effective analysis remain the same. North Star High School employs both models. There, math team meetings often occur in groups led by team leaders, while the English department generally employs one-on-one check-ins. One-on-one meetings are doable even in the largest schools, as we show in the chapter on finding the time (Chapter 8), but that does not preclude schools from choosing group analysis.

## ACTION: WALKING THE WALK

During their analysis meeting, Steve and Beth reached a solid understanding of what students did well and generated a host of ideas about how best to strengthen student learning. Even the most cogent analysis, however, is only meaningful if it leads to action. Recognizing this, great leaders make sure that the results of data analysis meetings translate into real classroom changes.

### At the Meeting: First Steps Toward Action

As noted earlier, Steve comes to his analysis meeting with an action plan template on which he intends to note specific action steps he wants to take away from the discussion. At the meeting, Beth then supports Steve by giving him time to record on paper the changes they select on the spot. Although action plans like Steve's may be effective in a variety of formats, it is vital that every action plan includes a due date for each key action step. "Assessment is useless until it affects instruction," Mike Mann notes. "Setting clear dates ensures this happens." Attaching due dates to action steps is non-negotiable: it establishes clear expectations, allows for greater accountability, and ensures that the meeting's findings will make a difference in the classroom.

To help teachers respond to the problems they have identified, Beth breaks processes down into smaller steps to facilitate implementation and make accountability easier. For example, rather than instructing Steve to "use *Macbeth* to teach words in context," she works with him to determine specific skills to teach to the students, and they compile a list of those skills right there at the meeting.

### A Word On . . . Action Plans to Lesson Plans

Converting action plans to lesson plans occurs naturally when you have standing meetings for feedback and planning with each of your teachers. Then, all you need to do is convert that standing meeting to a data meeting once each quarter. You'll learn more about the power of such meetings in Chapters 2 and 3 on feedback and planning.

REWATCH Clips 1 and 2: Leaders guide teachers from assessment to action.

#### Action Plans Become Lesson Plans

Rather than stop at pinning down an action plan, Beth and Steve proceed to rewrite upcoming lesson plans based on what they've decided during their meeting. For example, at the close of the meeting, Steve adds lessons on skills for unscrambling confusing passages to his lesson plans for the upcoming week. Rewriting lessons immediately entrenches the new strategies that have been developed at the meeting. Like writing an action plan, this process prevents implementation from being left to chance.

| Day 1: TUESDAY | Day 2: WEDNESDAY | Day 3: THURSDAY |
|---|---|---|
| Whole class:<br>Do-Now: Review assessment questions 8 and 10 (literal comprehension)<br>Small-group review: *Macbeth* translation think-aloud | Whole class:<br>Do-Now: Practice paraphrasing a difficult sentence or short passage in one's own words—*without* using any of the words in the passage | Whole class:<br>Large group: SAT prep using AP *Macbeth* passage (Predict answers for HW, answer passage in class)<br>Small-group review: Vocabulary-in-context review |

### After the Meeting: Making Action Happen

Once analysis meetings have been completed in this way, teachers like Steve have a clear guide for what to teach and how to teach it more effectively. To

make sure these action steps turn into better student learning, a few more steps follow:

- *Make assessment an ongoing process*. In a data-driven environment, teachers like Steve will use "mini-assessments" to see whether their students are on track. Through quizzes, homework assignments, and even student responses to teacher questions, Steve will know whether he's progressing toward his goal. At the analysis meeting, leaders should encourage this process by brainstorming with teachers: What ongoing assessment will they use to test student mastery of the skills they have targeted? How well these assessments are helping teachers track learning and shape instruction remains part of the leader's discussion with teachers throughout the weeks that follow.
- *Use schoolwide systems to support change*. The heart of change beats in the classroom but needs the support of every second of the school day. Faculty members, such as tutors, who do not participate in assessment or analysis can still get copies of interim assessments and data reports and be included in data-driven instruction. Teacher tutoring, after-school support sessions, or peer instruction should also be linked to action plans. At North Star, for example, teachers Shana Pyatt and Sean Smith lead the "Breakfast Club" to give more individualized attention to students whose interim assessments have revealed difficulty with basic operations in math.
- *Make accountability easy*. Strong action plans make it easy for teachers and leaders to monitor progress. Teachers can make sure their lesson plans are as effective as they can be in promoting learning, and leaders can monitor to see if that is happening. Classroom observations also become more powerful, because observers can better evaluate the teacher's efforts to shape and present a specific lesson that advances agreed-upon goals. We revisit this topic in Chapter 2, Observation and Feedback.

## SYSTEMS: LOCK IN SUCCESS

Beth's skills as a questioner and analyst are deeply impressive. However, they would have been squandered without the work that her principal Mike Mann has invested in creating a strong schoolwide structure for data analysis. For data-driven instruction to transform a school, assessment, analysis, and action must be "locked in" through a key set of systems.

## The Calendar

Read a principal's calendar, and you'll know his priorities. When he built North Star's yearly calendar, Mike Mann's first step was to lock in the fundamentals of data-driven instruction: interim assessments, analysis meetings, and time to implement action steps. The message is clear: at North Star, student learning is the essential focus.

Consider the calendar outlined in Table 1.3. This calendar outlines the data-related tasks in which a school like Mike Mann's engages during the year. Note that weeks are explicitly marked out in advance for the reteaching of areas where the interim assessment revealed students to be having difficulty. This ensures that North Star has locked in core objectives.

**Table 1.3** Building Your Calendar: Sample HS Interim Assessment Calendar

| Time Frame | Unit/Assessment | Notes |
|---|---|---|
| **6 Weeks (8/28–10/20)** | **1st Semester, Part 1** | |
| IA #1 October 16 (7 weeks) | 1st semester midterm (Interim assessment #1) | Approximately 1 hour per assessment. All objectives from Unit 1. |
| 1 week (10/17–10/24) | RETEACH objectives from IA #1 | Reteach based on test results analysis. |
| **7 Weeks (10/24–12/8)** | **1st Semester, Part 2** | |
| IA #2 December 11 (7 weeks) | 1st semester final (Interim assessment #2) | Cumulative: All objectives, units 1–2 (@ 1:30 hours/exam). |
| 1 week (12/13–12/22) | RETEACH objectives from NSA 1 and 2 | Reteach based on test results analysis. |
| **8 Weeks (1/2–2/23)** | **2nd Semester, Part 1** | |
| IA #3 Feb 25–Mar 2 (8 weeks) | 2nd semester midterm (Interim assessment #3) | Cumulative: All objectives, units 1–3 (@ 1:40 hours/exam). |
| 2 weeks (3/5–3/16) | 2nd semester, Part 2 and RETEACH | Reteach based on test results analysis. |
| SAT March 19–23 | SAT | |
| **7 Weeks (3/26–5/18)** | **2nd Semester, Part 3** | |
| IA #4 May 21–25 (8 weeks) | Interim assessment #4 (Juniors and seniors: AP exams) | Cumulative: All objectives, units 1–5 (@ 2 hours/exam). |
| **4 Weeks (5/28–6/22)** | **2nd Semester, Part 4 and Final Performance Task Preparation** | |
| Year End June 25–29 | Final exam and final performance tasks | Cumulative: All objectives, units 1–6 (@ 2 hours/exam) and oral presentations/large math projects. |

This calendar weaves assessments into the fabric of the school year. Once in place, those assessments provide a valuable tool for scheduling the rest of the year. Imagine the school year calendar as a table, and interim assessments as legs. Each assessment is imperative—without it, the table would topple over. You still have room for mobility, though: if you move the table, all the legs will move with it in unison. For example, if the state moves testing up by one year, your school can simply move everything forward, keeping the assessment cycle in place.

**Core Idea**

Read a school calendar, and you'll know what matters in a school. Put the assessment cycle in first, and learning will take priority.

Chapter 8 goes into greater detail on creating calendars. For now, the key point is that unless leaders commit to a yearlong program of data-driven growth, they will not realize extraordinary improvements.

## TURNAROUND: WHAT TO DO FIRST

As noted in the Introduction, building a strong, data-driven foundation is one of the "super-levers" for schools seeking dramatic transformation. What are the first steps a leader can take to put this into action in a school that is struggling?

In other chapters, you'll find coping mechanisms and shortcuts for working through challenging situations. In this chapter, however, data-driven instruction *is* the turnaround strategy. This is the lever that will jumpstart student learning, right alongside student culture. At the end of this chapter ("How It Fits into a Leader's Schedule"), you'll find the beginning of a monthly action plan, the full version of which is on the DVD. Your task is quite direct: take this monthly action plan and adjust it to meet your school's yearly calendar. Each one of the action steps listed needs to happen, although they can happen at whatever time works for you within the framework we've laid out here.

On the DVD, you have the highest-leverage handouts for use with data-driven instruction. Again, for a full menu of professional development materials, look to my previous book, *Driven by Data*.[10] You do not need to reinvent the wheel here: the work has been done successfully by hundreds of schools across the country. You can attain extraordinary results by simply following their example.

## A Teacher's Testimonial on DDI

Stephen Chiger

I came to data-driven instruction as an unashamed skeptic. ''This sounds like another round of teaching to the test,'' I sniffed, as I begrudgingly shuffled in to a professional development (PD) workshop that would wind up changing the course of my professional life.

I'd been teaching in an urban high school for four years, and my idealism, while not extinguished, had begun to seriously sag under the weight of some questions that most teachers in under-resourced communities face. How could I teach well when my students came to me at so many disparate levels? If my students' primary school education had been inadequate, was it too late to change anything by the time they were in high school? And even if I could run my class effectively, were the systemic expectations so low—and the drag of poverty so crushing—that my efforts comprised little more than blowing against the wind?

Suffice it to say, something happened during the course of that PD that altered how I saw education. I read the case studies of schools that had turned around student achievement. I analyzed student data and saw the kinds of insights it provided about learning. I thought of my students—of Zakiyyah, of Dawanna, of Porsalin and Paul and Gwen. Didn't I owe it to them to push myself and my school?

After hearing a segment on using assessments to improve literacy, I called the facilitator over.

''This sounds great,'' I said. ''But this isn't how my department teaches English. We teach poems, we teach stories, we teach the five-paragraph essay.''

''Well,'' the facilitator said, ''it's not about which poem or story you teach; it's about how you teach it, assess it, and reteach it. That's what you need to rethink.''

I still remember what I was thinking in that moment. First, I thought that this was an incredibly intimidating and outrageous thing to say. Second, I thought that it was exactly right. If we designed tests to measure student literacy, and if we set the rigor of those tests to match what we knew would be true college preparation, we could keep our curriculum focused on the material that really mattered—not just the idiosyncratic whims of the moment. We could, with the backbone of a data-driven program in place, transplant a refreshed academic vision, one to which all of us would be aligned.

A data-driven program wouldn't be teaching to the test; it would be teaching to the kids. More specifically, we'd be teaching to their needs because we'd know—precisely—what those needs were.

I got back to school and immediately began work on developing the system. We hired a consultant who had worked at North Star, a school whose success at that point was legendary in New Jersey. We formed a small cadre of educators who were willing to stick their necks out and develop this system. I split my days between teaching and administrative work.

(*continued*)

When the opportunity to work at North Star presented itself, I took it. I needed to know—once and for all—whether the student achievement they boasted was really possible for an entire school system. If North Star wasn't doing it, no one was; if they were, I needed to be a part of that.

At North Star I met Beth Verrilli, one of the most astounding leaders and teachers I have ever worked alongside. You'd never know this by talking to Beth: she is humble, soft-spoken, thoughtful, and plenty hard on herself.

Beth doesn't know this, but I'd actually had the chance to meet her at that PD more than a year earlier. Back then, though, the mere thought of someone who'd led students to achieve the results she had intimidated me too much to introduce myself. Beth must be a super-genius or a magician to do the work she did at North Star, I reckoned. Maybe she had a golden binder with the answers to all the teaching questions I privately harbored.

I was wrong. What made Beth a great instructional leader was precisely the opposite. She didn't have all the answers, and—while quite intelligent—she wasn't a mystic with preternatural powers. She was a person, like me, who worked really, really hard. When she didn't have an answer, she set herself to the task of finding one or—more often—creating it herself.

When I got to North Star, another English teacher said to me, ''The thing about Beth's leadership is that you'll do everything she asks because you won't be able to imagine letting her down.'' It was true. At every meeting, it was clear to me that she'd spent as much time poring over my students' data as I had—and, what's more, she'd spent an equal amount of time considering my own analysis. She came prepared to every session as a master teacher does to a lesson: with objectives, ideas, questions, and enough familiarity with the material to think on her feet as the moments demanded. If she was putting this much time into my development as a teacher, I could do no less in return.

I remember in my first year our sophomores tested low on tone questions. I was surprised. I'd predicted they'd do well. They hadn't demonstrated the weakness in my formative assessments—but only because I hadn't been asking the right kinds of questions.

When we analyzed the test, we realized that students weren't differentiating between different types of tone words—for example, disappointed versus sad versus lugubrious. Beth and I co-planned a unit that unlocked the abilities we knew the kids had. We honed it until we were happy with it, until we saw our students master the skill. They did—and now we have these lessons to share with any member of our department who faces the same obstacle.

It would have been easy for Beth to put herself on autopilot. I'd had a good amount of experience with data-driven instruction at my last job, and I was already bought in. I showed up to our meetings having spent hours on developing analysis documents and with as many ideas in tow as I could muster. I was hungry for ideas. But Beth pushed my growth nevertheless. Always keeping one, or two, or ten steps ahead of me, she helped me be my best. Beth understood data-driven culture for what it is: an antidote for curricular complacency.

When I think of Beth I think of my student Kenyatta, who struggled in tenth grade until we deciphered her literacy difficulties . . . and who later got into her top college choice. When I think of Beth I think of my student Jessica, who was so surprised at her growth in English—a class she assumed would always be out of her reach—that she set her sights on winning departmental recognition. (She did.)

But, most of all, when I think of Beth I think of someone who took the time and energy to nurture my growth in the same way we try to nurture the growth of our students. I think of someone whose attention to detail and dedication to using data well have earned her own students nationally competitive scores—not just year after year, but each year with stronger results. I think of someone who is my partner, hands dirtied, digging through the messy work of analysis to find the most effective practices for our students. Discovering data-driven instruction changed my career once, but the practice of doing it alongside Beth did so a second time.

Now an instructional leader myself, I try to pay forward Beth's wisdom. I prepare for data meetings with attentiveness and zeal. I analyze my teachers' data with the same alacrity I want them to apply. And I try to meet people wherever they are—whether new or experienced, struggling or masterful—so that together we can find the right answers for our students by analyzing one question at a time.

## CONCLUSION: THE RIGHT MAP TO FOLLOW

As the Introduction explained, data-driven instruction functions as a super-lever, sharpening a principal's remaining tools and making learning soar. It gives both leaders and teachers a map of their schools' instructional needs. Stone by stone and change by change, leaders like Mike Mann and Beth Verrilli can then use that map to pave their schools' routes to success. Data-driven instruction asks the most essential question an educator can ask: How can we make sure our students learn? Used correctly, it also spells out the answer.

To help you evaluate the quality of your data-driven "map," we provide a rubric of what makes implementation effective. Intended to be used to assess the present state of data-driven instruction and assessment in a school, the rubric summarizes all the key elements detailed in this chapter. The rubric specifically targets interim assessments and the key levers leading to increased student achievement.

Using this rubric, school leaders can conduct a self-evaluation that will show them where they stand and help them determine what steps they must take to bring data from paper to practice. Follow your map, and results will quickly follow.

**Implementation Rubric: Data-Driven Instruction and Assessment**

| | |
|---|---|
| **Data-Driven Culture** | |
| 1. *Highly active leadership team.* Facilitate teacher–leader data analysis meetings after each interim assessment and maintain focus on the process throughout the year. | /4 |
| 2. *Introductory professional development.* Teachers and leaders are effectively introduced to data-driven instruction; they understand how interim assessments define rigor and experience the process of analyzing results and adapting instruction. | /4 |
| 3. *Implementation calendar.* Begin school year with a detailed calendar that includes time for assessment creation and adaptation, implementation, analysis, planning meetings, and reteaching (flexible enough to accommodate district changes and mandates). | /4 |
| 4. *Ongoing professional development.* PD calendar is aligned with data-driven instructional plan: includes modeling assessment analysis and action planning and is flexible to adapt to student learning needs. | /4 |
| 5. *Build by borrowing.* Identify and implement best practices from high-achieving teachers and schools: visit schools and classrooms, share and disseminate resources and strategies. | /4 |
| **Assessments** | |
| 1. *Common interim assessments* four to six times per year | /4 |
| 2. *Transparent starting point.* Teachers see the assessments at the beginning of each cycle; they define the roadmap for teaching. | /4 |
| 3. *Aligned to state tests and college readiness* | /4 |
| 4. *Aligned to instructional sequence* of clearly defined grade level/content expectations | /4 |
| 5. *Reassess* previously taught standards | /4 |
| **Analysis** | |
| 1. *Immediate turnaround* of assessment results (ideally 48 hrs) | /4 |
| 2. *User-friendly, succinct data reports* include item-level analysis, standards-level analysis, and bottom line results | /4 |
| 3. *Teacher-owned analysis* facilitated by effective leadership preparation | /4 |
| 4. *Test-in-hand analysis* between teachers and instructional leader | /4 |
| 5. *Deep:* Moves beyond what students got wrong and answers why they got it wrong | /4 |
| **Action** | |
| 1. *Plan new lessons* collaboratively to develop new strategies based on data analysis | /4 |
| 2. *Implement explicit teacher action plans* in whole-class instruction, small groups, tutorials, and before- and after-school supports. | /4 |
| 3. *Ongoing assessment.* Utilize in-the-moment checks for understanding and in-class assessment to ensure student progress between interim assessments. | /4 |
| 4. *Accountability.* Instructional leaders review lesson and unit plans and give observation feedback driven by the action plan and student learning needs. | /4 |
| 5. *Engaged students* know the end goal, how they did, and what actions they are taking to improve. | /4 |
| TOTAL: /100 | |

*Note:* 4 = Exemplary Implementation, 3 = Proficient Implementation, 2 = Beginning Implementation, 1 = No Implementation

**Table 1.4** August–October Monthly Plan: Data-Driven Instruction

| | |
|---|---|
| August | ☐ Present first DDI PD session to staff (use *Driven by Data* for PD agenda, materials). |
| September | ☐ Week 2: Have the first round of interim assessments (or the closest proxy) finalized.<br>☐ Week 2: First interim assessments (or the closest proxy) have already been seen by the teachers (transparency) so that they can plan for mastery.<br>☐ Week 4: Develop plan to determine how test scoring and analysis will be completed. |
| October | ☐ Week 1: Have teachers predict performance on interim assessment #1.<br>☐ Mark each question: ''Confident'' (sure that the students will get it right), ''Not sure,'' and ''No way'' (students will definitely get it wrong).<br>☐ Week 2: Interim assessment #1.<br>☐ Week 2: Deliver PD to school's instructional leaders in DDI analysis and leading analysis meetings (use *Driven by Data* for PD agenda, materials, and resources).<br>☐ Week 3: Teacher analysis and action plan templates are in place; teachers complete assessment analysis instructional plans.<br>☐ Week 3: Instructional leaders run test-in-hand analysis meetings with teachers.<br>☐ Compare performance to what the teacher predicted: highlight areas of discrepancy (for example, teacher over- or underpredicted how well the students were going to do on certain test questions).<br>☐ Follow one-pager: ''Leading Effective Analysis Meetings.''<br>☐ Week 3: Principal observes analysis meetings, giving feedback to instructional leaders about their facilitation.<br>☐ Week 4: Staff PD.<br>☐ Run results meeting to plan to reteach challenging standards.<br>☐ Have teachers add rigor to their lessons using ''Data-Driven Best Practices for Increasing Rigor.'' |

## Making It Work: How It Fits into a Leader's Schedule

None of the systems mentioned here require blocking out time in a leader's schedule every week. Rather, they are tasks that occur on a quarterly basis around each interim assessment. Thus, rather than a weekly schedule, they are best driven by a monthly plan. A sample is shown in Table 1.4.

On the week of assessment analysis, a leader's calendar would include conferences with all the teachers involved in the assessment. This would look something like Table 1.5.

## Stop Here

Take a moment and evaluate your school on the data-driven instruction implementation rubric. Then follow the steps below:

**Table 1.5** Sample Schedule

| | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|
| 6:00am | | | | | |
| :30 | | | | | |
| 7:00am | | | | | |
| :30 | | | | | |
| 8:00am | | Meet Wilson | Meet Bradley | | |
| :30 | | Meet Vargas | Meet Frint | | |
| 9:00am | | Meet Jenkins | | | |
| :30 | | | | | |
| 10:00am | | | | | |
| :30 | | | | | |
| 11:00am | | | | | |
| :30 | | | | | |
| 12:00pm | | | | | Meet Bradley |
| :30 | | Meet Worrell | | | Meet Palma |
| 1:00pm | | Meet Christian | | | Meet Settles |
| :30 | | Meet Bernales | Meet Boykin | | Meet Hoyt |
| 2:00pm | | | Meet Devin | | |
| :30 | | | Meet Mitzia | | |
| 3:00pm | | | | | |
| :30 | | | | | |
| 4:00pm | | | | | |
| :30 | | | | | |
| 5:00pm | | | | | |
| :30 | | | | | |

Work Time  School Culture  Observations  Meetings

If your school is below a 70 on the DDI rubric:

The point bears reiterating: data-driven instruction is the super-lever *without which none of the other instructional levers work effectively*. If you don't think your school is proficient on this DDI rubric (that is, it doesn't earn a score above 70), then this chapter should remain your primary focus for building your school's success (combined with student culture—Chapter 5). While you may successfully implement other instructional levers now, too, don't launch anything yet that will inhibit your ability to implement DDI thoroughly. Consider using *Driven*

*by Data* as an additional resource—it includes all the professional development materials and tools you need to launch this effectively in your school.

If your school is above a 70 on the DDI rubric:

Move on to the next chapter to see how observation and feedback, planning, and professional development can support your school's journey from good to great.[11] These chapters are listed in the order of the extent to which the levers they describe will impact your school.

## Pulling the Lever
Action Planning Worksheet for Data-Driven Instruction

**Self-Assessment**

- Assess your school on the Implementation Rubric for Data-Driven Instruction and Assessment. What is your score? /100
- What items on the Implementation Rubric need the most improvement?

_____

_____

_____

_____

_____

**Planning for Action**

- What tools from this book will you use to develop data-driven instruction at your school? Check all that you will use (you can find all on the DVD):
  - ☐ Implementation Rubric for DDI
  - ☐ Leading Effective Analysis Meetings One-Pager
  - ☐ Assessment Analysis Spreadsheet
  - ☐ Teacher Action Plan
  - ☐ Assessment Calendars: Elementary, Middle, or High School
  - ☐ Monthly Map: Data-Driven Instruction Sample
  - ☐ Videos of Observation and Feedback Meetings
- What are your next steps for launching data-driven instruction?

| Action | Date |
|---|---|
| | |
| | |
| | |
| | |
| | |