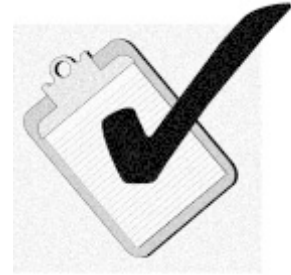


CHARTER  
SCHOOL

# ACCOUNTABILITY ACTION GUIDE

**Massachusetts Charter School Resource Center**  
at Pioneer Institute

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# **Charter School Accountability Action Guide**

By **Jennifer Nahas** and **Roblyn Brigham**

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- ▶ Academy of the Pacific Rim Charter School
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- ▶ Lawrence Family Development Charter School
- ▶ Lynn Community Charter School
- ▶ Martha's Vineyard Charter School
- ▶ Media and Technology Charter High School
- ▶ Roxbury Preparatory Charter School

Thanks to the hard and continuous work of teachers and school leaders, we have learned a great deal about the realities of launching and maintaining various aspects of academic accountability. Additionally, we would like to thank AAP consultants Susan Pimentel, John Cawthorne, and Crista Burrell for facilitating, supporting, and advising the schools' accountability action teams. We also wish to thank Susan Pimentel and Susan Miller Barker for reviewing early drafts of this guide. Finally, much appreciation goes to Kathryn Cifolillo for her fortitude and expert wisdom throughout the editing process.

## Massachusetts Charter School Resource Center

The mission of the Massachusetts Charter School Resource Center (MACSRC) at Pioneer Institute is to foster the development and ensure the success of charter schools in the Commonwealth. MACSRC provides guidance on founding charter schools and resources to help existing schools maintain organizational strength, fiscal and managerial stability, and high levels of student achievement. MACSRC programs promote broad public understanding of the charter school model and keep educators informed regarding exemplary practices in successful schools. The Resource Center supports public policies that encourage innovation and reward the pursuit of excellence in public education. More complete information about the Charter School Resource Center is available online at [www.pioneerinstitute.org/csrc](http://www.pioneerinstitute.org/csrc).

## Brigham Nahas Research Associates

### Jennifer Nahas and Roblyn Brigham

Brigham Nahas Research Associates (BNRA) works hand-in-hand with staff in public schools, community-based organizations, and intermediary groups to design evaluation and accountability systems to analyze data, to assess the effectiveness of service delivery, and to understand and explain program outcomes. BNRA is committed to helping programs use action-oriented research to make data-driven program improvement decisions that result in better services to students, families, and the community.

# Charter School Accountability Action Guide

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# Introduction

Academic accountability is the underpinning of a charter school’s long-term viability. It is the realization of the pact (though sometimes unspoken) between the school and the broader community that the charter school will educate children, help them reach their potential, and ultimately transform students’ lives. Schools, through the leadership of their boards and school administrators and teachers, need to demonstrate how their students are performing using many different types of indicators, both quantitative and qualitative. It is not enough for administrators and teachers to describe student performance anecdotally. They must collect, analyze, understand, and share information on student performance, even though it is difficult to comprehend and to communicate. They must be able to share both “hard” and “soft” data with the community, the board of trustees, parents, and other interested consumers, and with the state’s chartering agency, in Massachusetts the Board of Education.

This Accountability Action Guide is designed to provide faculty, administrators, and standards and assessment teams at charter schools with a step-by-step approach, a “recipe” for building a school-wide academic accountability system. The six steps presented and discussed in the guide are drawn from best practices and lessons learned in several charter schools as they implemented the Accountability Assistance Project (AAP). This technical assistance program was supported by the Massachusetts Charter School Resource Center through grants from national foundations. AAP was created when the Massachusetts Department of Education Charter School Office put in place

criteria to evaluate charter school success. The most challenging among the renewal requirements was for charter schools to articulate and document the academic performance of their students. (For more about AAP, visit [www.pioneerinstitute.org/csrc/accountability](http://www.pioneerinstitute.org/csrc/accountability).)

With the assistance of several nationally recognized consultants, the Resource Center worked with 11 schools to design accountability projects tailored to the needs of each. These projects moved school practice forward by defining the components of a robust accountability system and demonstrating to practitioners how to develop them. Most of the AAP work has occurred during the summer—teachers and consultants spent two weeks crafting standards, designing assessments, and analyzing student performance. Staff who participated in AAP projects reported they no longer perceived accountability work as a requirement with little value, but now saw it as an opportunity to provide structure and support to the school’s primary goal to increase student achievement.

Faculty and administrators often find it difficult to construct—and frustrating to implement—accountability processes and systems because accountability systems are

- ▶ **integrated across classrooms:** Determining what is required of all teachers is a prerequisite to a fully developed accountability system.
- ▶ **comprehensive:** Accountability systems encompass articulated goals at the front end and an ongoing process for looping information about student performance back to teachers and parents.
- ▶ **teacher-driven:** Teachers create and use the accountability system to inform classroom practice.
- ▶ **sequenced:** Academic standards that are carefully sequenced ensure consistency from one grade to the next.
- ▶ **technology-based:** The accountability project needs a data management system that is flexible enough to answer key questions about student performance and not too burdensome for staff to use.

AAP projects covered a number of accountability system components:

- School standards were cross-referenced against the state frameworks and other exemplars.
- Standardized test data were disaggregated to inform classroom practice.

- A management information system was used to reveal the correlation between standardized test results and results from the school's homegrown school-wide reading and writing pre- and post-tests.
- Teachers used a common rubric across grades to score samples of student work.

- Teachers developed a common assessment tool (such as a school-wide vocabulary list or common reading list) to which all grades adhere and against which progress is measured.
- A new report card was designed for teachers across all grade levels to use with parents and students.

## The Six Action Steps

The Accountability Action Guide seeks to demystify the process of developing a six-step accountability system.

**Step 1: Create a school culture committed to accountability:** Articulating a school-wide belief about the importance of academic accountability is key. Schools must define leadership roles and responsibilities and create a school structure that supports the accountability project.

**Step 2: Build a strong accountability team:** This team of teachers will be

charged with guiding and facilitating the work.

**Step 3: Conduct a needs assessment:** Information should be systematically collected before launching the accountability effort.

**Step 4: Develop standards, learning objectives, and curriculum:** These are school-wide articulations of what students should know and be able to do as they progress through the school.

**Step 5: Select appropriate measurement tools:** An array of both internal (homegrown) and external (the required state tests plus other options) testing tools is necessary to measure student performance and achievement relative to the standards and learning objectives.

**Step 6: Use data effectively:** Solid, rigorous accountability systems require that schools make use of the data they collect on student progress. Schools must manage the information and use it purposefully to ensure continuous program improvement.

Be sure to check out the related web links listed on page 32.

# Action Step 1

## *Create a School Culture Committed to Accountability*

To assess the Commonwealth's public schools, policy makers in Massachusetts look at how well the schools' curricula are aligned to the state curriculum frameworks and at student performance on the MCAS (more on the tests in Action Step 4). At the same time, the Charter School Office of the Department of Education encourages charter schools to develop indicators other than the MCAS to provide teachers, administrators, parents, and students with information on how the school and its students are progressing toward academic goals.

Through required annual reports, site visits, the school's accountability plan, and the charter renewal process, schools are asked to "make their case" to show student academic growth and increased performance.

To make their case successfully, schools must create a culture of academic accountability by defining roles and responsibilities and creating a school organizational structure that provides time and opportunity for teacher dialogue toward accountability action.

### **Create the Culture**

School leaders must deliver a clear and consistent public message that the school holds itself accountable for student performance and support these statements through school practice and resource allocation. To ensure that the message moves beyond just words, school leaders define accountability roles and responsibilities, establish hiring and performance review practices that reflect the belief system, and design

the curriculum and the school day to accommodate the work. Within a culture of accountability the goal of setting academic standards is matched by an equal and explicit commitment to measuring student performance relative to the standards.

Leaders must share one ground rule. Teachers are neither judged nor blamed for performance problems. Leaders celebrate that problems are identified because only then can student performance be improved.

Accountability systems that effectively support student achievement are teacher-driven. Teachers participate in all facets of the transparent design process. By "transparent" we mean that teachers fully participate in defining what is expected of them and what they should expect from their students. Teachers develop standards, align curriculum, and engage students in common assessment tools. They draw conclusions about student performance from the data and adjust teaching and practice accordingly. Teachers

become the hub of a well-integrated, well-communicated accountability wheel.

The school's culture supports the conviction that informing and improving teacher practice must be the basis for accountability decisions. Staying focused on this goal can be challenging when school leaders are bombarded with options by the latest off-the-shelf standards/assessment tools and by consultants interested in other goals. Too often schools build accountability systems whose primary audience is external, even political, and that are designed to show that the school is doing well at another school's expense. Schools should always ask whether the teacher, and ultimately the student, will benefit from the strategy or action being considered: Will this accountability strategy provide better information about student performance? Can the information be translated into action?

If proposed activities and purchases do not provide teachers with information they can use to better understand the academic performance of students and to change practice, then they are peripheral and are not shaping a culture that supports accountability work. If the accountability effort has little relevance to classroom practice, staff will become disengaged and resentful. Know why you have chosen a particular approach, and keep asking questions. If the answers are not clear, consider other options.

## Define Roles and Responsibilities

There are many implications of a teacher-driven model, particularly in the charter school world, which operates with many vested interests. The first task is to iron out roles and responsibilities for the key stakeholders. The school's board of trustees, the school leader(s) and/or the accountability team leader, the accountability team members, and the other teachers in the school must have a clear understanding of how they support and work within the school's accountability system.

### 1) The Board of Trustees

Few boards start off understanding that academic performance is critical to the school's future, and boards often miss opportunities to hire a school leader and a school leadership team with the skills and attitude to support this priority. The members of the board need to recognize that student achievement is as high a priority as fiscal viability, facilities development, and the other issues on which most boards focus. Effective boards know that the DOE demands that schools document academic performance continually as well as at the critical five-year renewal point. Trustees should start writing their academic "headlines"—those key points they want to be able to publicize about the school five years hence—when the school is in its infancy.

Having the right people—and at least a few experts in standards and assessment—on the board ensures that accountability stays a top priority. Boards often have a liaison to the school's accountability team, members who participate in accountability activities, or a standing committee focused specifically on accountability. School leaders should report regularly on the school's accountability system at board meetings. The board can then entertain and support recommendations

from the accountability team for changes in curriculum, instruction, and assessment. The data generated from the accountability system also help the board decide how to direct school resources.

Without consistent board support, the school's accountability plan will be shelved, teachers will be frustrated that their hard work is neither noticed nor implemented, and the board will be searching for quick fixes to "make their case" for student performance when faced with writing the five-year renewal document. Those boards or school leaders that have written these documents in a vacuum without staff input or by hiring a consultant have been much less successful in creating a high-performing accountability system because the renewal is written primarily for external consumption and not as part of a continuous improvement effort. Board members must be active partners with the school leaders and the accountability team to respond to state requirements.

### 2) School Leader(s) and the Accountability Team Leader

Ideally, the school leader's job description articulates the responsibility to implement the school's accountability strategy. More often, this responsibility is vaguely communicated to the school leader through the requirement to prepare DOE documents such as annual reports and the accountability plan. On close examination of DOE requirements, school leaders learn the comprehensive nature of accountability work, investigate ways to implement an accountability strategy, and begin the process of defining their roles.

School leaders typically define their roles in terms of "opening doors," "providing opportunities" for teachers to work on the accountability effort, and creating a school structure that supports this work. They typically feel

neither trained for nor interested in managing the day-to-day operation of the effort. The leaders were more interested in hiring a teacher trained in standards, assessment, and data use. By hiring a teacher to champion the accountability effort—and giving him or her the power to bring teachers together and make decisions—the school leaders ensure that the accountability effort can become a respected, fully implemented system in which teachers, board members, and leadership are invested.

Accountability champions or accountability team leaders can come from many different places in the school. Typically, they are teachers by training and are either hired into or evolve into a position such as professional development coordinator, instructional leader, academic head (in contrast to the administrative head of school), curriculum coordinator, or director of curriculum and instruction.

One school leader created a position—the director of curriculum and assessment (DCA)—to serve as champion of the accountability system. The DCA implements that school's accountability plan and spends 20 percent of her time in the classroom in order not to lose touch with the day-to-day issues facing the teaching staff. She coordinates cross-grade cluster meetings, identifies assessment tools for common use across classrooms, manages the information generated from the assessments, and facilitates school-wide retreats on the articulation of standards. Most importantly, she is the link between the school leaders and the school's cluster leaders and the permanent liaison to the board of trustees.

### 3) Accountability Team Members

Accountability teams serve two purposes: 1) They do the hard work of choosing and implementing accountability strategies, and 2) they keep the rest of the faculty informed and excited

about the accountability effort. They can facilitate faculty meetings, coordinate school retreats, and serve as regular correspondents, describing their work throughout the school. Through the team structure, teachers have a strong and central voice in designing the strategies to be used (more on this in Action Step 2).

#### **4) Teachers**

It must be made clear to all teachers that participating in the school's accountability system is part of the job. They may be asked to respond to standards and assessment recommendations—eventually they will be charged with applying standards and assessments in their classrooms.

Teachers responsible for working with and implementing accountability strategies have various reactions to some of the approaches recommended by the accountability team. Some welcome the input because the strategies address problem areas they have found frustrating. The idea of making the school's standards and assessments explicit and public delights some teachers who are tired of trying to hit a "moving target." Others feel restricted by these efforts, concerned that in their experience, public knowledge of practice and academic performance is used to blame the teacher. They may be reluctant to participate. School leaders must send a clear message that information will be used to guide decision-making and effect change. No one teacher—or one teaching approach—is the "right" one. Teachers are only asked to be open to understanding the data and to trying new approaches if their current strategy proves unfruitful.

Hiring and performance reviews of all staff, including accountability team members, must be in line with the school's accountability philosophy. We are not suggesting that teachers be held responsible for student performance based on any one-test indicator. Rather, teachers should be held accountable for their willingness and ability to respond reasonably to the accountability effort and make changes in their practice accordingly.

### **Create an Organizational Structure that Supports Teacher Dialogue**

Adapting the school schedule to make time for accountability work is the hardest, and most important, piece of the accountability puzzle. School leaders must shape the school schedule to give teachers ample time to focus on the accountability project. Schools that do not alter the school schedule to account for the additional effort required find that accountability is never accorded the standing in the school that would make the effort effective. Finding time for the work can be addressed in several ways:

#### **1) Use meeting time effectively.**

In several schools, faculty and grade-level meetings were restructured to carve out time for the accountability team to report on its progress. Grade-level meetings that occurred once a week became time for the accountability team to work. One school's team met on Wednesday mornings for one hour. School leaders later squeezed in an additional hour on Fridays by reconfiguring the school's music schedule.

Another school redesigned faculty meetings. One meeting a month was devoted to the accountability project; team members were asked to update, inform, and elicit feedback across the staff. The team used this time to involve teachers in the process, rather than just report on team activities. At one meeting, the team used the time to build consensus for school-wide scoring rubrics. Instead of just presenting the structure of the rubric in theoretical terms, the team engaged the faculty in a hands-on, active role-play using samples of student work to show how the rubric would be used in their classrooms.

#### **2) Adjust the school dismissal schedule.**

One school found that it just did not have enough meeting time within the school day as it was structured. In its second year, school leaders in collaboration with parents took a bold step and instituted early dismissal of students every Wednesday. This allowed team members to meet and work with the faculty on the school's standards and assessments.

#### **3) Schedule half-day enrichment programs once a month.**

Some schools block out a 3-hour period for all students to participate in special enrichment programs in such areas as art, drama, physical education, or music by finding part-time teachers to integrate classroom teachings into enrichment activities. While the students are engaged in an all-school play or art mural, teachers work on accountability strategies.

# Action Step **2**

## *Build a Strong Accountability Team*

The accountability team is the “go-to” team. The director of curriculum and assessment or other similar position is at the helm, coordinating team activities. In addition to the leader, who else should be on the accountability team? What should the team look like? What mix of teachers are best suited for this task? It is with these questions in mind that school leaders must select accountability members, create clear and measurable accountability goals that are in line with the school accountability plan, and identify resources for the team.

### Select Accountability Team Members

Assembling the team should be a thoughtful and structured process; it is not the time to ask for volunteers. The school leader and the DCA must know what they are looking for in terms of skills, organization, and mix. Selection criteria should be accessible to the entire school and the application process made public and open to all interested teachers. It is important that the team members are selected through a rigorous review process by a committee of school leaders and trustees.

Consider the following criteria when selecting the accountability team:

- **Size of the team:** Base team size on the enrollment and grade levels at the school. Make sure that the team is not so large that it is hard to get work done but is large enough to capture a representative portion of the faculty.
- **Representation of grade levels and content areas:** While team size may make this difficult, try to have

representatives from each grade or grade cluster as well as from primary content strands—language arts, math, history, and science—and other mission-specific strands the school embraces. Include staff members who conduct cross-grade activities such as the director of special education, technology specialist, parent liaison, literacy counselor, and librarian. These people offer a “birds-eye view” of school activities.

- **Job descriptions and compensation:** Create new job descriptions that cover roles and responsibilities in addition to classroom teaching. Look to hire team members who have experience working on standards, assessment, and data use; who work well in team settings; who are flexible; and who are interested in driving school reflection and change. Given the diverse skill set sought for the team, the school must compensate teachers accordingly. Their jobs extend beyond the classroom, requiring them to work across grade and content areas on issues that are outside their original job descriptions.

- **Create clear and measurable accountability goals:** The first goal for the accountability team is to develop the school’s accountability plan, a DOE requirement for schools in their second year. By making the team responsible for the design and implementation of the school’s accountability plan,<sup>1</sup> school leaders ensure that this document is neither created in a vacuum nor used merely to fulfill a bureaucratic requirement. Instead, answering the DOE’s accountability questions becomes an all-school project, coordinated by the team. It serves as the foundation and strategic plan for the accountability team’s work. The team then makes sure that the plan is a living document, continually revisited and used.

Team members should begin by conducting a needs assessment of the school’s current standards and assessment practices. Ideally, this needs assessment forms the basis of the school’s accountability plan. Even if your school starts this process mid-stream, after submission of the DOE accountability plan, it is still critical for the team to take stock and conduct a thorough assessment of current classroom practices, and then update the accountability plan.

<sup>1</sup>The state’s accountability plan requires schools to address all forms of accountability—fiscal, board, community, etc. The accountability team’s focus is creating an academic accountability plan for the school. Other forms of accountability may be best answered by others in the school.

## Identify Resources to Support the Team

What will the team need to implement the accountability plan? School leaders and trustees acknowledge the value of the team by appropriating funds to support team activities, such as hiring consultants, buying books and materi-

als, and designing reporting systems. The team may want to investigate an off-the-shelf assessment package. A school wanting to develop its own standards may need to hire a facilitator to work with the team. Financial support ensures that members can stay current in the field and can become

in-house experts and trainers for the rest of the teachers. Structural support (i.e., dedicated space for meetings and places to store reference materials), supplies, and equipment (i.e., computers, software, etc.) provide the team with the tools they need to implement accountability strategies.

Be sure to check out the related web links listed on page 32.



# Action Step **3**

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## *Conduct a Needs Assessment*

The team is assembled and ready to go. Meeting times and places have been established. Team members have reviewed the original charter, spoken with founding members, and pulled apart the school's mission; they understand DOE requirements. To kick off the project, the DCA has arranged for a one-day retreat prior to the start of school. The first part of the day is spent in team-building exercises; during the second part, the team works on

- constructing a protocol
- developing and conducting the needs assessment
- documenting the academic performance of students.

The team identifies a number of general questions as a starting point:

- What does the school want to report about student performance in the first year, third year, and fifth year?
- Imagine your school is in its fifth year, what have students gained academically? What are your headlines? What have students accomplished? How have they improved?
- What evidence supports academic improvement? What specific data need to be collected? Where will the data come from and how long will collecting the data take? What interim measures can be used to track academic performance?

### **Constructing a Protocol**

To begin to answer these questions, the team develops a "protocol" or questionnaire to use with the teachers in the school. The teachers' answers will

guide the team in developing its approach to accountability. The team asks teachers the following questions:

- What information do they have and what would they like to have to measure the academic performance of their students?
- How do they know that students are succeeding? And what do they do when a segment of the class is not?
- What do they want to be able to say about their students' academic performance? What measurement indicators are used? What is quantifiable?

An example of a questionnaire designed for classroom teachers appears on the following page. You may not recognize all of the terms at first, but the content included in this matrix will be discussed in subsequent steps.

### **Develop the Needs Assessment**

Conducting the needs assessment allows teachers to reflect on their classroom practice. It also builds awareness and begins to garner support for the academic accountability plan.

This team-led needs assessment builds a participatory process.

In some cases, it may be more appropriate to bring a consultant/researcher into the school to gather this information. If the team is concerned that teacher-to-teacher interviews will produce less honest results or if there are issues that teachers will be reluctant to share with their peers, an outside party can offer protection and anonymity. Do not, however, hire a consultant to save time. On the contrary, selecting the right consultant and ensuring that he or she stays on task and is meeting the team's specific needs can take a great deal of time and effort.

Here are some guidelines to follow if you do choose to hire outside help to conduct the needs assessment:

- Identify clearly the types of skills needed to achieve the project goals. These might include excellent writing and listening skills, attention to detail, as well as a solid knowledge of best practices of standards and assessment, education reform, charter schools, etc.
- Cast a wide net for recommendations, and ask specific questions about how the consultant helped move a school forward.
- Hire consultants for discrete work so as the project changes, you have the flexibility to change consultants.
- Know the consultants' limitations.
- Check references and ask for work samples.

# Classroom Teacher Questionnaire

## ► Standards and Learning Objectives

Does your classroom use a set of academic standards?  Yes  No

Have you discussed them with the sending and receiving teachers?  Yes  No

What content areas are covered? \_\_\_\_\_

Did you cross-reference them against the Massachusetts Curriculum Frameworks?  Yes  No

Have you looked at other exemplary standards?  Yes  No

Do you know what other state standards to look at or how to get them?  Yes  No

Do you think the school's mission is embedded in your classroom standards and practice?  Yes  No

Are your standards broad and the learning objectives specific?  Yes  No Are they clear and measurable?  Yes  No

## ► External Assessments: Standardized tests

What standardized tests do you use? \_\_\_\_\_

Why were they chosen? \_\_\_\_\_

How do you use the results? \_\_\_\_\_

Who receives the data? \_\_\_\_\_

Have you made any changes in your practice because of test results?  Yes  No

Do you examine results in relation to your classroom standards? In relation to the MCAS?  Yes  No

Do you use the data?  Yes  No How? \_\_\_\_\_

How does the school use both sets of data? \_\_\_\_\_

## ► Internal or Performance-based Assessments: Portfolios

Have you tried to look at samples of student work in a systematic fashion to determine academic performance?  Yes  No

Would you say that you have a portfolio process?  Yes  No

What is the purpose of the portfolio (gateway, process, graduation, presentation) ? \_\_\_\_\_

What information do you glean? \_\_\_\_\_

How do you decide what goes into the portfolio? \_\_\_\_\_

How often? \_\_\_\_\_

What role does the student play in the portfolio process? \_\_\_\_\_

Who owns the portfolio? \_\_\_\_\_

How do you know what qualifies as exemplary work? \_\_\_\_\_

Have you developed a rubric? \_\_\_\_\_

Is there an outside audience to review work?  Yes  No

Is the information from the portfolio used in any way to make decisions about students?  Yes  No

## ► Analysis: Systems development

How do you maintain academic data on your students? \_\_\_\_\_

How do you make decisions about grades and report cards? \_\_\_\_\_

Have you used an internal database?  Yes  No

Have you correlated standardized test scores to other data sources such as the portfolio, grades, or other testing instruments?  
 Yes  No

Have you gathered any demographic information on the students in your class?  Yes  No If so, why and how do you use the data? \_\_\_\_\_

- Write a contract that specifies the product, timeframe, and costs. Tie payment to project milestones.

Once you determine who is going to conduct the needs assessment, it is time to begin interviewing teachers, staff, and school leaders. In large schools, it may not be feasible to interview everyone, so consider taking a sample of teachers. If you do take a sample, be sure you interview a cross-section of teachers, including new teachers, founding teachers, active teachers, and grade level and content area representatives. Interview those

teachers who have unique positions in the school, such as membership on the board. You should anticipate that the needs assessment will take time to conduct. Give the team or the consultants three to five months to design the protocol, conduct interviews, gather information, and synthesize the data into a strategic plan.

If you are using a consultant to conduct the interviews, the accountability team should work closely with the consultant to synthesize the results so they are well grounded in the work of the school. The needs assessment should not be an

outsider's view of the school. It is an insider's guide to the school's practice.

As team members or consultants interview teachers, it is important that the members continually check with each other and talk about what they are finding. This may lead the team to adjust the protocol to reflect common themes and concerns, so they can probe more deeply into some areas. When you synthesize the information into a strategic plan, it is important to keep the DOE requirements in mind. This will ensure consistency.

## Case Study: A High School Sets its Accountability Goal and Plan

The state accountability plan was due in two months. To expedite the process, the accountability team interviewed teams of teachers at each grade level. The school had to engage all teachers quickly in articulating what they wanted to hold themselves accountable for. Some came to these meetings thinking, "Another meeting to talk state requirements with little relevance to my classroom..." but many said they left believing that an accountability strategic plan would make sure no students were left behind.

It took a month of meetings and a month of culling through notes for one critical theme to emerge across grade levels. At the five-year renewal mark, teachers wanted all students reading at grade level. They were not. Students were making progress, they were improving, but most came to the school reading at a 6th grade level, and four years of high school courses couldn't guarantee success. Frustrated math, science, and history teachers were pointing fingers at the language arts teachers. Students couldn't read the texts assigned or understand test questions. One history teacher was failing students who might pass if they had the reading skills.

During a faculty meeting, the DCA presented the needs assessment findings. All agreed: The goal for the end of the school's 5th year would be to have all students reading at grade level. The interviews also provided the team with its first tasks: to develop a cross-grade system to support teachers' efforts to increase reading proficiency and to monitor students' progress. This meant timely changes could be made to curriculum, practice, and structure.

The team was charged with several tasks:

- ▶ Articulate school reading standards by looking at the curriculum frameworks and other exemplary reading standards and work with the language arts teachers to sequence curriculum offerings grade by grade.
- ▶ Ensure that content strands embed reading skills so that while students are learning about other subjects they are also improving their reading skills.
- ▶ Investigate off-the-shelf reading packages that the school might

purchase to help teachers in their classrooms and monitor the reading progress of students.

- ▶ Explore alternative reading measurement tools such as juried reading assessments and evaluating samples of student work.
- ▶ Develop an internal data management system that looks at multiple reading indicators such as MCAS reading, Stanford 9 reading, and DRA grades.
- ▶ Work with teachers to understand the data and make appropriate classroom decisions.
- ▶ Investigate possible after-school strategies.

This case study illustrates how the team identified the most important academic goal of the school and how the school began to pursue the goal using multiple approaches. A needs assessment will point the team in many directions, and it is the job of team members to designate a starting point for accountability activities. This often means tackling a portion of standards and assessments.

# Action Step **4** *Develop Standards, Learning Objectives, and Curriculum*

Standards are clear and measurable statements of what students should know and be able to do at particular points in their education. What does it mean to become a standards-driven school? How would an accountability team lead and manage a school-wide standards effort? Implementing a standards-based approach starts with teachers and requires creating a common standards language, knowing what makes a well-written standard, and balancing school mission and the state frameworks.

## Creating a Common Standards Language

In a standards-driven school, students must demonstrate content mastery and skills before they graduate or move on to the next educational level. Strong standards make the goals for student learning clear to students, families, teachers, and the public.

Standards statements are concise descriptions of general learning goals. Learning objectives articulate the standards in greater detail at each grade level. Learning objectives are longer and more specific, and they are concrete and measurable. They serve as the bridge between the school's standards and classroom practice. They are what teachers use weekly, if not daily, to plan lessons, to track what has been covered in class, and to gauge whether specific learning objectives have been achieved for each student.

Teachers use a variety of tools to measure progress toward learning objectives—from traditional tests, homework assignments, and papers to analysis of performance on projects

through rubrics and portfolios. Some schools are comfortable with letting each teacher determine how to measure whether students have achieved the standards, while others use a few common indicators across classrooms. In one school all 6th-grade students participate in an interdisciplinary project in which they explore marine life and use their math and writing skills at the same time. Teachers use this project to capture the academic performance of students on three standard strands: science, math, and language arts. The teachers created a rubric to use to determine whether students met the standards.

Denis Doyle and Susan Pimentel, in *Raising the Standard* (see [www.goalline.org](http://www.goalline.org)), offer several criteria for evaluating the quality of standards and learning objectives. Four of these are critical. Standards should

- **be specific, rigorous, and rooted in academics:** Strong standards and learning objectives are clear and precise statements, with sufficient detail that they can be easily linked back to instruction and allow for measurement. An example is a 4th-

The standards movement has captured the attention of policy makers as well as educators. On the federal level, the call has been for national standards. On the state level, the field has seen rapid change. In only 10 years, almost every state has introduced standards, although they vary in quality, quantity, and flexibility. Some districts have jumped on the standards bandwagon, adding standards to those required by the state. Finally, schools are crafting their own statements of standards, which they use to drive teaching and learning.

In Massachusetts, the Education Reform Act of 1993 called for the articulation of statewide standards in English/language arts, math, science/technology and history/social studies. These standards are known as the Massachusetts Curriculum Frameworks. These frameworks outline what the Commonwealth expects all students to know and be able to do at the end of each grade cluster, spanning grades K to 4, 5 to 8, and 9 to 12. Over the past several years, public school teachers in Massachusetts have been working to align their curricula to these state frameworks. It has been left up to the schools to determine how best to sequence curricula so that by the time students complete 4th, 8th, and 12th grades, they have covered the material articulated by the state frameworks.

grade teacher who can assess whether the students in her class can use the thesaurus to determine related words and concepts.

- **demonstrate a progression of learning:** Strong standards show a progression from grade to grade in what students will be able to achieve.

For example, “working at a more complex level” may be something that you want students to do in every grade level, but this will not provide guidance to teachers looking to craft their curriculum. Standards demonstrate this progression: a 4th grader applies knowledge of word origins, derivations, antonyms, and idioms to

determine the meaning of words and phrases, while a 6th grader distinguishes and interprets figurative language and multiple-meaning words.

- **be measurable:** The learning objectives must be stated so that someone can measure whether or not the student has achieved the standard.

## Case Study: How One School Articulates Language Arts Standards

In each grade level, Language Arts is broken down into several “sub-content” areas: Writing; Listening and Speaking; Oral and Written English Language Conventions; Reading; Word Analysis,

Fluency and Systematic Vocabulary Development; and Literacy Response and Analysis. For each category, a “standards statement” was written, as were learning objectives. The example shows that while

the same topics are covered each year, the specific skills identified in the learning objectives become progressively refined, and the skill level becomes increasingly difficult.

► **Reading:** Word Analysis and Systematic Vocabulary Development  
Vocabulary and Concept Development

► **Grade 4:** Students understand the basic features of a reading, select and know how to translate letter patterns into spoken language using phonics, syllabication and word parts, and apply this knowledge for fluent oral and silent reading.

- 1.1 apply knowledge of word origins, derivations, antonyms, and idioms to determine the meaning of words and phrases
- 1.2 use knowledge of root words to determine the meaning of unknown words within a passage
- 1.3 know common Greek and Latin derived roots and affixes and use this knowledge to analyze the meanings of complex words
- 1.4 use the thesaurus to determine related words and concepts

► **Grade 5:** Students use their knowledge of word origins and word relationships as well as historical and literary context clues to determine the meaning of specialized vocabulary.

- 1.1 use word origins to determine the meaning of unknown words
- 1.2 understand and explain frequently used grade appropriate synonyms, antonyms, and homographs
- 1.3 know abstract Greek and Latin derived roots and affixes and use this knowledge to analyze the meaning of complex words
- 1.4 understand and explain the figurative and metaphorical use of words in context

► **Grade 6:** Students use their knowledge of word origins and word relationships as well as historical and literary context clues to determine the meaning of specialized vocabulary.

- 1.1 distinguish and interpret figurative language and multiple-meaning words
- 1.2 recognize the origins and meanings of frequently used foreign words in English and use these words accurately in speaking and writing
- 1.3 monitor expository writing for unknown words or words with novel meanings, using sentence and paragraph clues to determine meaning
- 1.4 understand and explain “shades of meaning” for related words

An example of a standard that is difficult to measure is “students exhibit habits of life-long learning.” While this statement might capture the essence of your school, it is not a measurable standard and should not be included in any learning objectives. Rather, look for specific identifiers that show the student is becoming a life-long learner.

- **be tied to content:** “Students demonstrate the ability to think critically, be creative and be reflective...” certainly covers skills that are needed to understand and apply content. These types of statements, however, cannot serve as standards because they are not tied directly to a content area. Demonstration of these skills can be included in the learning objectives within specific content areas.

The process of collectively writing school standards is as important as the product itself. The accountability team spearheads the effort and continually works with teachers across the school to sequence and articulate what students should know and be able to do at the end of each grade.

This is labor-intensive work and is difficult to do during the academic year. Schools should consider providing stipends for teachers who will cross content areas and grade levels to work on creating the school’s standards during a summer institute. Led by an outside standards expert, the team can cross-reference the school’s curriculum

during the summer and work with faculty in the fall to get feedback and incorporate standards across classrooms.

While it may seem that the path of least resistance would be simply to take the state frameworks and mandate teacher compliance, actual implementation would prove tedious, if not impossible, because the teachers had no role in creating them. If teachers are to have ownership over the school standards, they must have a voice in creating them.

## Balance School Mission and the State Frameworks

School standards should reflect the school’s unique mission as well as address the state frameworks. To craft school standards, start with your existing curriculum. If the curriculum is not documented, the first step is to put each classroom curriculum on paper. The curriculum document then becomes the basis against which to cross-reference the school’s mission and the state frameworks. Schools that work from the state standards and not their own curriculum find that the standards they create are too generic. They lack the sense of purpose and mission that defines the school.

### Mission

The mission of the school is central to the standards writing process. Just as math standards and learning objectives are specific, public, and measurable, the school’s mission should be too. Include

standards to measure progress toward the goals set forth in your mission statement. For instance, assume part of the school’s mission is to provide students with a two-way language program. Specific standards and learning objectives may be crafted separately for this goal or the standards for the two-way language program can be integrated into standards for language arts, math, science, and history. Writing standards specific to the mission confirms your school’s commitment to the principles you claim to hold dear.

### Integrate the State Frameworks

It is difficult to imagine creating in one academic year school standards that cover all the frameworks, let alone address mission-driven standards and learning objectives. But the cross-reference between curriculum and the state frameworks often shows that the two already overlap significantly. One school found it was relatively easy to merge the state frameworks into existing curricula—the challenge was taking a careful look at the state frameworks and being thoughtful about how the curriculum addresses specific issues.

Once they had articulated school standards, accountability teams were over the first hurdle: creating a common understanding of what students would know and be able to do. The next challenge for the team was to work with faculty to determine how to judge whether students had achieved the standards.

Be sure to check out the related web links listed on page 32.

## Case Study: Teachers Set Standards that Work

The MCAS tests were just months away. While teachers had completed a school-wide articulation of standards, the document was still in draft form and was seldom used. The standards had not been cross-referenced against the state curriculum frameworks. A two-week summer institute was proposed to re-craft standards. Stipends were arranged for teachers, and the school found financial support for an outside consultant to help facilitate the process. The consultant conducted a half-day workshop for all teachers prior to the end of school, to ensure that everyone in the school had the same understanding of what quality standards-setting means and requires. One Monday in July, the team arrived at 8:00 am, and a professional tone was set. The room had a large conference table and around the edges of the room were computer stations, loaded with examples of exemplary state standards. Coffee, muffins, and fruit were waiting, as they were every morning of the two-week session.

The first day began with an interactive exercise to focus the teachers on standards and assessment. They worked through a case study with provocative articles on the pros and cons of setting standards. Segmented into groups of two or three teachers, they read and analyzed the materials and reported the results of their discussions by responding to several questions: Are high standards really for everyone? Can all students achieve them? What about those students who just don't ever meet our high expectations? What do we do about them? How does a school stick to its mission when standards appear to make the school so generic?

The exercise stimulated a thoughtful discussion and debate about standards, an important step before the group began to consider its own school standards. The facilitator worked with

the team to identify the factors that make good standards. The team broke into small content groups, practiced writing standards, and examined exemplary state standards and the Massachusetts Curriculum Frameworks.

The team revisited the two-year-old school standards on the second day. The first cross-reference exercise was to look at the standards in terms of the school's mission. Did it jump out at the reader? Then teachers looked at the standards in terms of their current classroom practice. Was their curriculum reflected?

The second cross-referencing exercise focused on the state frameworks. Back in teams, and with a current set of school standards that reflected classroom practice, teachers tackled the state standards. The teachers spent several days working through these documents, learning lessons from the exemplary standards, making sure their new standards would cover the state frameworks, and aligning their standards to their curriculum. After a full seven days of writing with 10 teachers, the process was completed and teachers were excited, pleased that they were able to identify and eliminate duplication and repetition in content areas across grade levels.

Before the institute, the 8th-grade history teacher had covered early civilizations as did the 6th-grade teacher. Not any more! Teachers sequenced curriculum so that when students move from one grade to another, the receiving teacher knows where the sending teacher left off.

After the two weeks, the team presented the faculty with two binders of newly revised standards. The team knew it had to make a concerted effort with their faculty peers to ensure that these new standards did not wind up on the shelf. First, they focused on one grade level—4th grade—and developed what they

called the refrigerator posting. The team took one sheet of paper and boiled the standards down to their essence. They translated this sheet into Spanish and distributed the one-page version of the standards to 4th-grade parents at the first parent conference. They encouraged parents to keep this posting on the refrigerator as a reminder of what their children will know by the end of the year.

Tying the standards to the report cards ensured consistency across classrooms and grades and provided a solid framework for designing teacher conferences that focus on the standards and how a student is progressing toward them.

One of the three professional days scheduled at the beginning of the school year was used for a school-wide workshop on the revised standards, the "refrig posting," and the new report card system. A facilitator was brought in to conduct the training for the day. The teachers were broken into grade-level groups, and a team member walked each grade through the standards, answered questions, and called on the facilitator when issues weren't easily resolved.

The director of curriculum and assessment made presentations to the board of trustees and began to work regularly with teachers who needed help aligning their curricula to the new standards. Team members provided technical assistance to teachers, and school leaders set aside a few days of professional development time for teachers to work with one of the team members to cross-reference and adjust curriculum. The standards became invaluable training material for the teachers, particularly those teachers new to the school.

This teacher-led process increased staff morale, buy-in, and ownership over the standards document. The standards accurately reflect the values of the

school and the high expectations teachers hold for their students. Teachers were relieved to know that they were being held accountable for what they cover with their students. They liked that

they were being asked to prepare their students for a positive transition to the next grade level, and that all other teachers in the school were also working toward this goal. Finally, parents and

students now know what students will be learning over the course of the school year. This has improved and intensified the relationship between the teachers and families of students.

### GRADE 4 BENCHMARK FOLDER

<b>ASSESSMENT KEY:</b> <b>JB:</b> Just Beginning <b>MS:</b> Meets Standard <b>AS:</b> Approaching Standard <b>ES:</b> Exceeds Standard		<b>HOW DEMONSTRATED:</b> Pupil product? ____ Test? ____ Other? _____			
<b>1. WORD ANALYSIS, FLUENCY AND SYSTEMATIC VOCABULARY DEVELOPMENT</b> Students understand the basic features of a reading, select and know how to translate letter patterns into spoken language using phonics, syllabication, and word parts, and apply this knowledge for fluent oral and silent reading.		<b>TERM 1</b> Parent conference:	<b>TERM 2</b> Parent conference:	<b>TERM 3</b> Parent conference:	<b>TERM 4</b> Parent conference:
<b>DECODING AND WORD RECOGNITION</b>					
1.1 know and use complex word families (e.g., -ight) to decode familiar words in reading					
<b>VOCABULARY AND CONCEPT DEVELOPMENT</b>					
1.2 use knowledge of antonyms, synonyms, homophones, and homographs to determine the meaning of words					
1.3 demonstrate knowledge of super-, sub-, and co-ordinate relations among grade-appropriate words and explain the importance of these relations (e.g., dog/mammal/animal/living things)					
1.4 monitor texts for unknown words using sentence and word context to find meaning					
1.5 use the dictionary to learn the meaning and features of unknown words					
1.6 use knowledge of prefixes (e.g., un-, pre-, bi-, mis-, dis-) and suffixes (e.g., -er, -est, -ful, -ly, -ness, -less, -ous, -y) to determine the meaning of words					
<b>2. READING COMPREHENSION</b> Students read and understand grade-level appropriate material. They draw as needed on such strategies as generating and responding to essential questions, making predictions, and comparing information from several sources. In addition to their regular school reading, by grade 4, students read a half million words annually (as measured by the number of books or pages read or minutes of daily reading), including classic and contemporary literature as well as magazines, newspapers, and on-line material.					
<b>STRUCTURAL FEATURES OF INFORMATIONAL MATERIALS</b>					
2.1 use titles, table of contents, chapter headings, glossaries, and indexes to locate information in text					
<b>VOCABULARY AND CONCEPT DEVELOPMENT</b>					
2.2 ask questions and support answers by connecting prior knowledge with literal and inferential information found in text					
2.3 demonstrate comprehension by re-reading and pin-pointing answers in text					
2.4 recall major points in text and make and revise predictions about upcoming information					
2.5 distinguish between cause and effect, fact and opinion, and main idea and supporting details in expository text					
2.6 use features such as topic sentences, headings, and key words to extract appropriate and significant information from text, including problems and solutions					
2.7 generate and organize ideas for oral, written, or visual text by using planning strategies such as brainstorming, discussing, charting, listing, webbing, reading, drawing, and role playing to draw upon interests, prior knowledge, and research					

Source: Lawrence Family Development Charter School

# Action Step 5

## Select Appropriate Measurement Tools

How will teachers know whether students are making progress toward achieving the high standards the school has set? In Massachusetts, the Department of Education requires that charter schools, like all the other public schools in the state, administer the MCAS. Beyond this requirement, the school can decide what assessments provide the best information to understand student performance. With the luxury of choosing and developing assessments on its own, how does a charter school decide among the many options available? When teachers, school leaders, and boards are challenged to answer this question, they consider the following:

- developing a common assessment language and defining the school’s assessment goals
- using external assessments:
  - norm-referenced tests
  - standards-referenced tests
- using internal assessments:
  - portfolio assessments.

### Defining the School’s Assessment Goals

The essential goal is to develop an assessment strategy to provide maximum information on student performance so teachers and administrators can continually improve teaching and learning. Putting the focus on improvement links assessment to program and teacher development, and eventually assessment becomes tightly integrated into the school program. AAP schools that focused on assessing student performance agreed on the need to

- systematically assess student’s strengths and weaknesses

- find out what the student can do, both independently and with teacher support
- summarize achievement and learning over a given period of time—six weeks, a year, or longer
- inform teaching decisions with data continuously
- report to administrators, board, and various stakeholders in the community
- document progress for parents and students.

Members of the accountability team should bear the following in mind as they begin to consider assessment options:

- The information must be used. Too often test results—particularly the results of standardized tests that are required by either the school or the state—sit on a shelf or are filed in a drawer and are never used by the teachers. If the faculty takes the time to develop and select assessments and if students are required to take them, you are obligated to use the information to better understand student performance and to inform teaching and learning.

- The results of assessments should be treated carefully; the data should not be used to place blame on teachers or students. Assessments alone cannot provide a “thumbs up/thumbs down” indicator about student progress and teacher effectiveness. They offer one kind of information that should be considered among others. Concern over finger pointing and blame may be a hurdle to overcome. To develop a solid accountability system, you must create a culture that honors problem solving and information gathering and forbids finger pointing. If the results are not as strong as you would like, encourage teachers to work with this information to come up with solutions to the problems the assessment data uncover.

### Choosing Assessment Tools

Accountability teams reviewed two types of measurement indicators—external and internal assessments—so that teachers could communicate consistently.

External assessments are standardized tests that have been developed outside of the school to measure the performance of students. Schools or districts purchase these tests and typically administer them once or twice a year. Often schools use the same test at each grade level in order to track growth, or improvement, in students’ performance over time. Standardized tests are useful in evaluating mastery of core skills. They are administered to large groups of students across the country under the same conditions, so results for one student or school can be compared with

others at the same grade level in another school, district, or state. External assessments are not specifically designed to match any one school's curriculum. Schools should select those standardized tests that measure progress in areas in which the school is interested.

Internal assessments—also known as “alternative assessments” and “performance-based assessments”—are developed within the school and require students to demonstrate mastery of the skills in the school's own curriculum. In contrast to most external tests, internal assessments typically require extended activity and engagement with the content area. They usually focus on problem solving and critical thinking, frequently posing problems to which there are many possible solutions and approaches for reaching them. Since most are “homegrown,” it is important to seek some measure of external validity for them. Developing strong and rigorous internal assessments requires a substantial commitment of time and resources.

Accountability teams tried to integrate the two types of assessments. External assessments, such as standardized tests, which are used to report to outside audiences, were used to inform teachers about their teaching practice. Similarly, internal assessments, used by teachers alone, were made rigorous, valid, and reliable so that outside audiences could view them as legitimate measures of student performance. By bringing the internal assessments to an external audience and the external assessments to an internal audience, schools created a more complete picture of their students' performance.

## Using External Assessments

Before participating in the project, schools only used the results of standardized tests in their annual reports, in fund-

raising proposals, and in marketing material. The faculty members were not confident in their ability to understand and interpret the scores and were even less confident that the results could or would be used in the classroom. Disdain for the testing process—and the time and money standardized tests require—was expressed by many teachers across the schools. However, staff acknowledged that standardized tests are unavoidable today, so teachers were open to learning about ways to get more out of the results. During the accountability teams' needs assessments, faculty identified several important uses for standardized tests:

- Evaluating mastery of core basic skills that are deemed important by a wide audience.
- Assessing change in student performance over time. If the tests are repeated annually, the scores can be used to show, for example, growth from one year to the next. This can be particularly helpful if you have scores on a test at the very beginning of a student's tenure at your school, as well as data from each year the student studies with you.
- Comparing the performance of students to neighboring schools and other districts that administer the same standardized tests. When considered along with demographic data that you collect on the student body, these tests can help you and the public understand the performance of the students in the appropriate context.
- Informing the development of internal tests, particularly if the school's internal and external tests are intended to measure the same skills or content areas. This can give teachers more confidence in their internal assessments.

It is tempting to want to show the world that your students perform well or that your school is out-performing other schools, but using these types of criteria to select a strategy confuses assessment with marketing. In publicizing the fine academic performance of your students to prospective students and to the community, make sure that you maintain high standards in your data collection, analysis, and usage.

If you are overly concerned about the “spin” of your data, you run the risk of spending a lot of time and money searching for a “positive story” in the data. This will jeopardize the credibility of the assessment effort. On the other hand, if you invest your resources in a strategy that is consistent with your curricula and is purposefully tied to the standards you have set, the information will actually be useful to your school. The “story” will unfold in more meaningful ways for both your internal and external audiences. In communicating information about student performance—particularly in annual reports and during the renewal process—publicize strengths and address weaknesses head on. Using data, you can celebrate that you are able to identify deficiencies and show what you are doing to improve performance. This demonstrates your school's commitment to using assessment to improve teaching and learning.

There are two types of standardized tests that charter schools typically use to examine student performance—norm-referenced and standards-referenced tests. The former compares the performance of students to a “norm group,” and the latter looks at a student’s performance against a set of externally defined standards.

## Norm-Referenced Tests

Norm-referenced tests assess performance at each grade level. They look at a student’s performance on a set of skills relative to that of other students from a particular norm group. The following norm-referenced tests were used in our project: the Stanford Achievement Test, California Achievement Test, the Metropolitan Achievement Test, the Iowa Test of Basic Skills, the Comprehensive Test of Basic Skills, and Terra Nova. These tests are not required of charter schools, although virtually all charter schools in Massachusetts have adopted an assessment system that includes at least one norm-referenced test.

What is a norm group? Prior to administering the test in schools, the testing company administered the test to a large group of selected students. The scores for this group are used to develop norm groups against which the performance of others is ranked. For some standardized tests, there are multiple “norm groups,” such as national norm group, local norm group, urban and rural norm groups, or independent school norm groups. It was important for schools to understand which norm group to select and why, when ordering, reviewing, and comparing their scores. Be clear about which norm group you use because it has implications for how the scores are interpreted.

Schools typically receive two types of reports from the testing company:

- **Summary reports** provide average (or median) scores for specified groups, such as single grade levels or individual classrooms; they summarize the performance of these pre-defined groups of students.
- **Individual reports** provide scores for each student, which are theoretically used by teachers to understand individual student performance, to share scores with parents, and to highlight strengths and weaknesses to the students themselves.

Teachers and administrators were in general agreement that the results of norm-referenced tests were difficult to interpret, despite the voluminous documentation and explanation provided by the testing companies. Two types of scores are most commonly reported to parents, teachers, and the public—percentile rank and grade-level equivalent.

A percentile score is interpreted as the student’s rank compared to the norm group. A student who scored in the 74th percentile in reading scored better than 74 percent of the students in the norm group.

Grade-level equivalents show how well a student is doing on tasks for a specific grade level. A student in the 3rd grade with a grade-level equivalent score of around 3 on the reading portion of the test is performing at grade level; a student who scores a 5.0 on the same test is performing at a higher level. It is important to recognize that a score of 5.0 does not suggest this student should be promoted to the fifth grade. Rather, it means that she did as well as an average fifth grader would on the third-grade test.

A third score—normal curve equivalent (NCE)—is also useful, but because it has less intuitive appeal than the percentile rank or the grade-level

equivalent, few schools actually used it in their assessment strategy or reported the score to students or the public. Essentially, NCE scores are the students’ scores that have been “normalized” or placed on the normal curve distribution, ranging from 1 to 99. The points on the NCE scale are an equal distance apart so NCEs can be manipulated mathematically. This is important because it allows you to look at the average NCEs across groups of students (i.e., the average score for girls compared to boys). You can also use these scores to assess change over time by comparing students’ NCE scores in one year to NCE scores in the next year. If the tests are administered at about the same time, you can see if the students grew at a “normal rate” over the year, or grew at the average rate for the norm group. For instance, if the NCE in a particular subject area is higher in year two, the student “grew” more than normal between years 1 and 2. The NCE also allows teachers to compare performance on different tests because the scores are all normalized.

When analyzing the performance of students over time on norm-referenced tests, the accountability teams found it helpful to have an outside consultant examine, interpret, and present the analysis to the team. This reflective process allowed teachers to hypothesize about the results and direct the consultant to analyze different cross-sections of the data.

When to administer the tests? Schools found that a norm-referenced test provides the most valuable information to teachers when administered in the spring. Spring scores allow the teacher to examine student success based on seven to eight months of instruction. For new schools using a norm-referenced test, consider giving the test twice, once in the fall to get baseline information and again in the spring.

Baseline information will provide important information about strengths and deficiencies around which teachers can start to plan. Administering the test twice will enable you to judge how much learning occurred between the start and end of the first year. As the class enters the next grade in the fall, there will be no need to test because the spring test will serve as the baseline indicator.

## Standards-Referenced Tests

Rather than comparing students to a norm group, standards-referenced tests (SRTs)<sup>1</sup> measure students' performance against standards for achievement set by teams assembled by the testing companies and typically comprised of teachers and other experts. Student scores indicate where they fall in relation to the standards set for a particular grade level. SRTs are often used by states to measure whether students have sufficiently mastered the state's standards.

Performance of an individual student on a standards-referenced test is measured independent of the performance of other students. Performance is measured against a "bar" or "benchmark" established prior to anyone actually taking the test. Unlike norm-referenced tests, all students in a class can succeed at high levels—or all students in a class can fail.

While scores on norm-referenced tests are usually given in relation to a norm group, they can also be presented in terms of performance standards that the company sets. The raw or scale scores can also be judged against a scoring bar and students categorized in terms of their performance levels. Some schools find these results appealing because interpretation is so straightforward.

<sup>1</sup>Standards-referenced tests differ slightly from criterion-referenced tests (CRTs) in that in the latter students pass or fail.

## MCAS: The Massachusetts Test

The Massachusetts Comprehensive Assessment System, mandated for 4th, 8th, and 10th graders in Massachusetts, is a standards-referenced test. Student scores are categorized into four performance levels: advanced, proficient, needs improvement, and failing. MCAS shows teachers, students and their families, and the community what students have learned and what they need to learn in order to meet the standards outlined in the Massachusetts Curriculum Frameworks.

The MCAS is a high-stakes test. Students will not receive a high school diploma if they cannot demonstrate competency on this exam. Starting with the class of 2003, students will need to achieve or exceed a score of 220, which is the threshold for the needs improvement category, in both the English language arts and the mathematics sections of the 10th grade test, to satisfy the state's "competency determination." The state Board of Education has indicated intentions to raise the threshold for the competency determination over time.

The test is comprised of both open-ended and multiple-choice questions and tests for both skill and knowledge. When they receive the results, teachers are able to discern precisely which questions gave their students trouble. Further, teachers receive evaluations of students' essays and their responses to open-ended questions. The state has provided sample test questions so schools and students can practice. Many AAP

schools have integrated these MCAS sample questions into their curriculum and classroom tests, to help students become accustomed to the test format and to help teachers provide remediation when they see their students falling short.

MCAS scores provide teachers and the public with a snapshot of the extent to which a school's 4th-, 8th- and 10th-grade students have mastered the content and skills outlined in the state's curriculum frameworks for those grades. Results can be presented for all the students who took the test, by class, and for individual students. While scores from one year to the next can show whether a higher (or lower) percentage of students in the school performed at each of the four levels, it is important to remember that the test is given to a new group of students each year. Even though the test is administered every year, it does not offer information about improvement or gains of particular students. Rather, it provides information about the performance of students at each of the three grade levels within a school (or district). In reviewing scores over time, it is very difficult to assess whether differences from one year to the next are due to changes in teaching practice or to the mix of students taking the test. Since the MCAS scores provide a point-in-time indication of student performance, most AAP schools administered additional standardized tests annually to the same groups of students to assess student progress over time.

## Internal Assessment: Building a Portfolio System

Internal assessment tools are tied directly to the school's standards and curriculum. These assessments, including tests, quizzes, projects, and written reports, are typically used to give a student a letter grade. Several schools are developing portfolio systems designed to bring together all or selected internal assessments to document a student's academic performance over time and to gain a deeper look into what a student knows and is able to do. An expert in portfolio system development led several schools in summer institutes on how to build portfolio assessment systems. A three-day training session was based on the portfolio model developed by Sougehan High School, in Amherst, New Hampshire. Sougehan High School is recognized among educators as a best practice school in portfolio assessment.

Simply stated, portfolios are purposeful collections of student work. Because they are homegrown assessment systems that teachers create and implement, portfolio systems look different in each school setting. They do share several important characteristics. First, the schools share a philosophy that portfolios measure student performance in the integrated context of school standards, curriculum, and assessment. Second, over the course of the year teachers work with students to collect, select, and reflect on examples of their work that demonstrate knowledge and skills in accordance with the goals of the portfolio. The samples of work are then stored in the classroom, in folders, binders, file cabinets, or electronically. Third, the criteria for judging student performance are public. Students know exactly what standards

are being applied to their work. Fourth, while the classroom teacher scores the individual pieces of work in the portfolio and perhaps scores the portfolio as a whole, a team of teachers, often across grades and content areas, also reviews and judges student portfolios as a means of ensuring validity, reliability, and consistency. Sometimes community members or experts in the field are invited to review student portfolios as well. Finally, the portfolio typically follows the student to the next grade level.

In all cases, building a portfolio assessment system is hard work. Schools that pursue the use of portfolio assessments find that the decision must be supported by the school structure, adequate teacher/student time and resources, and targeted professional development programs. School structure must permit sufficient teacher dialogue, and also foster a culture of teacher openness, honesty, and receptivity to having other teachers look at their students' work. For the portfolio process to succeed, teachers must become "critical friends," reviewing each other's work so that they come to agree on what constitutes exemplary student work.

Accountability teams facilitate open and frank discussions through teacher roundtables: groups of teachers dissect student work, create and revisit rubrics (or other scoring matrices), and then use the rubrics validly and reliably to ensure they are making accurate and consistent judgments. This means getting the unwritten, subconscious criteria out of teachers' heads and onto paper. Time, good facilitation skills, and diligent documentation on the part of the accountability teams are critical. Ultimately, with dedicated time and effort, teachers will look at the same piece of work with the same set of eyes.

## How to Get Started

### **Define the purpose of the portfolio.**

It is up to the teachers to determine the purpose and process for the school's portfolio system. This creative flexibility is a portfolio system's greatest strength and weakness. If a school implements a portfolio system without a clear goal or purpose, the process will add work to teachers' already busy schedules, and confusion will abound about what samples of student work should be collected. Schools that determine portfolio goals up front enjoy a consistent approach that teachers understand and agree to follow because it blends curriculum activities with assessment. The products students produce, as part of their course of study and discovery, are the items to examine for growth and change. Since portfolios build on the school's standards and curriculum, they do not become an add-on assessment component.

- **Educate faculty about the types and purposes of portfolios before deciding on a portfolio approach.**

There are many types of portfolios (see sidebar on the next page), and schools need to be clear about which type of portfolio they will be implementing. Schools often start with a showcase or gateway portfolio that compiles a student's best work. This is an easy, first step into the portfolio realm. Then, faculty start to experiment with growth or evaluative portfolios as an alternative means of measuring the academic performance of students over time. Schools are most interested in seeing if data they have gathered through a portfolio process support or challenge data culled from standardized test scores and internal assessments, such as grades. For instance, a student may score poorly on the reading subsection of a standardized test but

score highly on the portfolio reading rubric. Intersections such as this offer the most interesting and thought-provoking material for assessing the validity of instruments and the rigor of the curriculum.

- **Develop a long-term implementation plan.** Implementing a rigorous portfolio system takes time, possibly years. Start small with a “pilot” portfolio process in one or two classrooms, with the goal of launching a full grade level or content strand system by the end of year 2. Success in your first year means continued support in the upcoming years. Be careful not to overwhelm faculty with radical change and added responsibilities. Look to develop an exemplary mini-system to demonstrate how portfolios inform teaching and learning. One or two teachers can pilot a collection and selection system, create and use the rubric consistently, and look to the other grade level teachers to review their approach and scoring. This mini-system builds enthusiasm and support. By keeping an open ear to issues and concerns raised along the way, the team will be able to roll out a refined portfolio process to the rest of the faculty in the upcoming years.
- **Agree on the primary audience.** Is it the student, the teacher, the parents, or the community who are the primary audience? Most experts agree by that making students the primary audience of his or her portfolio, you can successfully serve all other stakeholders, while ensuring that teams do not go astray fulfilling peripheral agendas. Developing a portfolio offers students an opportunity to learn about learning, and to gain a solid understanding of their strengths and weaknesses, as well as their progress over the course of their years at the school.

### **Define the elements of the portfolio process.**

Accountability team members work with teachers to answer logistical questions about their evaluative or growth portfolio.

- **What will the portfolio measure?**

Schools took three different approaches to determining what their portfolio will measure.

- 1) Some schools chose to measure those skills not being measured by MCAS, such as problem solving, collaborative work, communication skills, and being a self-directed learner. Portfolios offer a way to evaluate these more elusive but critical skills.
- 2) Other schools tied their portfolio system to their mission statement. One school’s mission is to increase technology literacy. Portfolios allow a cross grade approach for assessing these skills.
- 3) Given that their students were performing poorly in reading on standardized tests, another school used the portfolio process to focus the faculty on this specific problem area. By systemically gathering reading performance data through the portfolio, faculty can investigate whether the data from standardized test scores and the portfolio process are telling the same story about student performance. If they are not, the faculty can gain a better understanding of what exactly the assessments (internal and external) are measuring.

- **What goes into the portfolio and when?** Once it is clear what you will be measuring, the team needs to decide what goes into the portfolio. To measure growth in a particular

## **Types of Portfolios and Purposes They Can Serve**

### **Showcase Portfolio**

- ▶ Profiles the student’s best work
- ▶ Demonstrates versatility

### **Keepsake Portfolio**

- ▶ Preserves favorite pieces
- ▶ Saves mementos of achievement over a span of years

### **Growth Portfolio**

- ▶ Models individual responsibility for reflecting on one’s own work
- ▶ Captures a record of growth and development

### **Evaluation Portfolio**

- ▶ Documents student performance on tasks with predetermined criteria for selection and scoring
- ▶ Assesses accountability of a school, district, state, or other unit

### **Process Portfolio**

- ▶ Captures a work-in-process including successive drafts and self-reflections to demonstrate how the student thinks and undertakes a complex task

### **Interdisciplinary Portfolio**

- ▶ Aids in assessing an interdisciplinary, thematic unit in which project entries may require integrative skills across disciplines or specified tasks require disciplinary perspectives on the common theme.

## TIME TO REFLECT

*Please fill out this form for each work you select for your Division One Exhibition*

Name \_\_\_\_\_ Discipline Area \_\_\_\_\_ Work # \_\_\_\_\_

**Describe the work:**

**Why did I choose this work?**

**Demonstrated skill:**

**Teacher's initials:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**What about this work demonstrates my proficiency in this skill?**

**What strategies could I use to revise or strengthen this skill?**

**Teacher's overall comments:**

Source: Souhegan High School

area, teachers decide what they are looking for in a sample of student work that satisfies the portfolio goal. For instance, if the school's growth portfolio will measure performance in literacy, students will be asked to submit samples of literacy at different points in time over the school year.

- **Who decides what goes into the growth portfolio?** Students typically decide, but often with teacher input or sign off on a particular piece of work. In the lower grades, teachers play a more active role in coaching students in the creation of their portfolios. As the students mature, they become the primary decision makers about the contents of their portfolios. When a sample of work is submitted into the portfolio, the student is typically asked to participate in a reflective writing exercise about the piece he or she has chosen. What makes this piece of work exemplary at this point in time? What did you learn? Where have you seen improvement? Questions such as these offers students an opportunity to reflect on their growth and see the transferability of the skills they have acquired. (See the "Time to Reflect" document on the previous page.)

## Evaluating Student Work: Rubrics and Exhibitions

Teachers create **rubrics**, which are lists of criteria for assessing specific skills, to score and judge academic performance. Some schools expand the accountability team to include students, parents, and community members to establish the rubric for portfolio assessment. Some schools have tried to use generic criteria

across disciplines and content areas, but most write specific criteria for each content area and skill being assessed. In all cases, the rubric is the yardstick to measure student performance. For growth portfolios, this yardstick must be sensitive to evolving skills. Typically, student scores would be low at the beginning of the year; toward the end of the year scores should indicate that students have become proficient in the skill area.

Once the rubric has been used two or three times, teachers can see if the criteria are measuring what they were intended to measure. Through the roundtables, teachers discuss and score sample portfolios together to ensure the criteria are reliable across classroom. A facilitated roundtable, with rules and a code of appropriate conduct, is an opportunity for a teacher to bring a sample portfolio to a panel of in-house experts (and perhaps external experts as well) for constructive feedback. The roundtable participants ask questions and discuss the experts' feedback, providing clarity, perspective, and validation to the portfolio process.

Regardless of the type of portfolio, the criteria for judging student work must be known in advance by students. In some schools, the criteria are displayed on the classroom walls and distributed to parents. It is also important that teachers and students have a solid understanding of what is proficient work and what is considered exemplary. Teachers can point to examples to convey to students their expectations.

**Exhibition** allows teachers to judge each student's portfolio in its entirety. The student is responsible for assembling the portfolio for presentation to

members of the faculty, student body, and community. The portfolio often includes a unique cover and a reflection letter focused on the purpose of the portfolio. In this letter, the student might reflect on the pieces of work in the portfolio, talk about academic successes and challenges, the value of this work to his or her growth, how the skills acquired apply to real life, and where the student hopes to use these skills in the future. An exhibition often begins with the student introducing him- or herself, reading the reflection letter, and reviewing the portfolio. After the presentation, the teachers, and perhaps a classmate, ask questions about the student's work and how it is linked to the school's mission and standards. After the student leaves the room, the panel uses a portfolio rubric (see next page) to determine whether the student has satisfied the requirements of the portfolio. The exhibition ends with a debriefing and hopefully a celebration that the student has successfully demonstrated competency.

The portfolio process offers a way to make public each student's work. It offers depth to the analysis of student performance over time and is a wonderful complement to an already quantitatively rich world. However, it is important to remember, as you start pulling performance data on students together in one in-house data management system, that putting suspect data on the system will jeopardize the accurate understanding of student performance. The faculty must be confident that the internal assessment data included in the system have undergone a rigorous process to ensure reliability and validity.

**DIVISION ONE EXHIBITION STANDARDS RUBRIC**

Exhibition Components	Exemplary - 4 (in addition to previous standards)	Proficient - 3 (in addition to previous standards)	Minimum Standard - 2
<p style="text-align: center;"><b>Portfolio</b></p>	<ul style="list-style-type: none"> <li>work can be used as a model</li> <li>Time to Reflect sheets consistently show evidence of deep reflection and analysis</li> </ul>	<ul style="list-style-type: none"> <li>connections between “What do I need to work on” and strategies to revise and strengthen the work on the Time to Reflect sheet are relevant and evident</li> <li>work represents a variety of mediums (i.e., oral, visual, etc.)</li> <li>met all deadlines for completion of portfolio</li> </ul>	<ul style="list-style-type: none"> <li>work contains a sampling of both 9th &amp; 10th grade work</li> <li>demonstrates all required outcomes</li> <li>work is neat, organized, and labeled</li> <li>Time to Reflect sheets are completed for each piece of work</li> </ul>
<p style="text-align: center;"><b>Reflective Component</b></p> <ul style="list-style-type: none"> <li>Letter to My Roundtable</li> </ul>	<ul style="list-style-type: none"> <li>shows evidence of deep reflection</li> <li>shows original and creative thinking</li> <li>defines actions necessary to meet future goals</li> <li>“Letter to My Roundtable” can be used as a model</li> <li>establishes strong connections between Division One experience and the mission statement</li> </ul>	<ul style="list-style-type: none"> <li>writing is concise, well-organized, flows, and has sound sentence structure</li> <li>reflects growth</li> <li>uses own words, examples, and stories</li> <li>connects work with the mission statement</li> <li>no significant errors in grammar and spelling</li> </ul>	<ul style="list-style-type: none"> <li>describes and reflects on work and learning experiences contained in portfolio</li> <li>uses model for “Letter to My Roundtable”</li> <li>shows an understanding of the mission statement</li> </ul>
<p style="text-align: center;"><b>Roundtable</b></p> <ul style="list-style-type: none"> <li>Scheduling</li> <li>Dialogue</li> </ul>	<ul style="list-style-type: none"> <li>responds to both warm and cool feedback from roundtable participants which shows learning and growth</li> <li>speaks of actions necessary to meet future goals</li> <li>establishes strong connection between Division One experience and mission statement</li> </ul>	<ul style="list-style-type: none"> <li>gives presentation which is smooth and supported by evidence in the portfolio</li> <li>uses own works, examples, and stories</li> <li>is enthusiastic and engaged</li> <li>responds knowledgeably to questions from roundtable participants</li> <li>connects work to mission statement</li> <li>shows growth based on evidence</li> </ul>	<ul style="list-style-type: none"> <li>attends roundtable; is on time, prepared, and brings binder and 5 copies of the “Letter to My Roundtable”</li> <li>invites a peer and adult community member (parent)</li> <li>presents letter slowly and clearly</li> <li>sits straight up, establishes eye contact, and dresses appropriately</li> <li>is courteous, respectful; thanks participants</li> <li>makes reference to mission statement</li> </ul>

Note: Students who do not achieve the minimum standard (2) for any of these areas must re-demonstrate

Source: Souhegan High School

# Action Step **6** *Use Data Effectively*

Over the course of the project, schools amassed a voluminous amount of data. Accountability teams found themselves wrestling with how to manage all this information. They began to develop and use data management systems to centralize the information and offer teachers multiple ways of looking at and analyzing academic performance. Schools wanted the capacity to manage a large database with varying types of data, analyze data across different subgroups of students, and communicate results effectively. This final step describes how schools created the infrastructure for the school's management information system, set up their databases, and conducted data roundtables.

## **Create the Infrastructure**

Team members, excited to “get their hands dirty” with data, were faced with several important decisions: Who will be responsible for the system? Should the system be created in-house or purchased? What information should be collected?

### **Who will be responsible for the system?**

Some schools redefined an existing staff position, and others hired a part-time database consultant to work with the accountability team. In one case, the school's technology specialist became the point person for the data; he worked with a consultant to determine how to analyze the data. Schools with the most success found a data person who interacted easily with teachers and provided assistance as they used the information to improve their teaching.

As your data management system becomes operational, create a policy and procedures manual to show how

the system works and specify who has access to the system and what tasks they can perform. Most teachers should be able to view the data, but the school should let only a few people actually enter or change student records. The system database contains confidential student and family information. The school needs to ensure the quality of the data by protecting it.

### **Should the system be created in-house or purchased?**

It is imperative that the data management tool meet the school's needs in terms of what it can do and the technology required. New database software packages for schools come out every day, and teams spent much time digesting the different offerings, their requirements, and their cost implications. One team decided to develop a system from scratch as a means of gaining practical experience and becoming more knowledgeable consumers of school database management programs.

Schools started constructing their management information systems using spreadsheets in software packages like Microsoft Excel. These were

compatible with both the school's computers and with the comfort level of the staff. Staff could do much of the data gathering on their own, but were less adept in figuring out how to store it on the computer. A consultant or someone on staff who assists with system design can also transfer data to other software packages for statistical analysis or to create charts, graphs, and reports.

### **What information should be collected?**

The accountability team and faculty work together to decide what information is important to their teaching and to understanding student performance. It is helpful to engage faculty in a dialogue about why they believe some students perform better than others. From these discussions, a series of hypotheses and research questions will emerge to guide data collection.

If the teachers believe that students from particular sending schools are doing better than students from other sending schools, be sure to include “sending school” information in the database. If teachers think that the differences among students are related most strongly to the education level of their parents, the school will want to collect this information as well.

Many schools collect demographic information on the school application or “intake” form. Others have conducted surveys of parents and asked teachers or school counselors to gather information about individual students.

Schools used demographic information as the starting point for their data management system. They also collected some “baseline” achievement data, such as scores on standardized tests prior to coming to the school, so they could begin to look at change over time. Since it is often difficult for schools to obtain previous test scores from sending schools, it may be more efficient to test incoming students. This not only provides baseline test score data that can be used to analyze gains, but these scores might also inform classroom assignments.

When combined with the demographic data, baseline test scores help faculty look at trends among sub-groups of students. Schools might want to look at the performance of students born in the United States compared to those who immigrated more recently to see whether there are differences that should be addressed in the curriculum.

The following are examples of information schools collected on their students:

- Gender
- Primary language spoken at home
- Race/ethnicity/culture
- Place of birth
- Family composition
- Living situation
- Highest level of education of parents/guardians
- Free/reduced lunch status
- Sending district
- Sending school.

## Set Up the Database

Schools created a spreadsheet in which each student was a “row” and each demographic or baseline variable a “column.” Numeric codes were used to identify the demographic data. Consultants pulled test score data off the disk ordered from the testing company. For some tests, the process of pulling scores off of disks (or CDs) is fairly straightforward; for others it is more complicated. Technical assistance may be needed to help with this step. Having someone manually enter the test data is also an option, but it can be extremely time-consuming and you run the risk of data entry errors.

Ultimately, the school’s database ties test scores to demographic and baseline data for each student. The result appears below.

The spreadsheet is just a snapshot of the data housed in the information system. It illustrates that the school’s management system records test data sequentially, by housing the scores of students as they move from grade to grade. Scores cover four years, allowing teachers to see trends in achievement. The demographic data allow the team to disaggregate the test data to understand the academic performance of different groups of students. Schools may look at the scores of girls versus boys or at the performance of students who participated in an after-school program compared to those who did not.

With all the data in one place, the accountability team can examine the academic performance of students on multiple assessments and determine whether they tell a consistent story of student performance. Does a student’s

results on the MCAS reading match the Stanford 9 and the reading rubric the school produced? Is the pattern repeated for other students? What does this tell us about our measurement tools?

## Conduct Data Roundtables

Schools and consultants were careful to facilitate discussions with teachers on interpreting the data. Prior to generating reports, teachers engaged in a data roundtable to tease out their questions, assumptions, and expectations of student performance. The database consultant then generated tables and graphs that addressed the teacher’s questions and were easy to understand. The database consultant presented the results to the accountability team teachers and was available to answer questions. The teachers and the consultants worked together to refine research questions, and the consultant conducted more data analysis for the teachers. The goal was to help the teachers understand how they could use the data they collect to better understand the strengths and weaknesses of their students, their teaching, and the school.

Reports reveal what students are struggling with and where they are soaring. Faculty found that aggregating individual pieces of information into large cross-school themes provided hard evidence to support what they intuitively believed was happening at the school. Results from the ninth grade students informed the tenth grade teachers about what they would need to review and what students have already mastered. Teachers could know where students were really succeeding and what part of the curriculum would need to be revamped.

Last name	First name	ID #	Total Reading-NCE				Total Math-NCE				Portfolio Rubric Score	Demographic		
			1996	1997	1998	1999	1996	1997	1998	1999		Gender	Language Spoken at Home	Sending District
Ferguson	Terry	0123	22.3	29.5	35.6	37.5	40.1	45.1	42.8	50.3	3	Female	English	11208
Gordon	Anthony	0124	54.7	44.5	56.7	57.9	22.3	17.2	24.3	29.3	2	Male	English	11208
Gonsalves	Griselle	0125	40.5	60.3	64.6	69.4	52.4	64.3	65.4	70.7	3	Male	Spanish	11209
Heifitz	Natasha	0126	57.8	58.1	55.4	61.2	22.3	25.3	30.5	37.1	4	Female	English	11208

## Case Study: Learning from the Data

The accountability team's needs assessment showed that teachers were not using or understanding scores from the Stanford-9 norm-referenced test, even though the school administered the test annually. Faculty were alarmed at the cost—both financial and in terms of teaching time lost and the toll on the students.

The accountability team decided to reassess the utility of these tests. Should a norm-referenced test be used to judge whether students had met the school's standards? Could the test information help teachers in the classroom and, most importantly, could it help students learn?

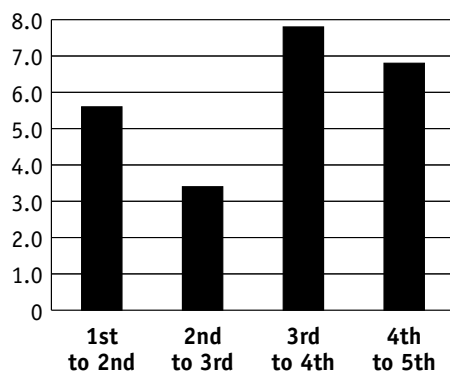
Before launching into data collection toward creating a database, the team held a data roundtable. Faculty generated a list of questions and possible reasons some students in the school were doing better than others. Were boys outperforming girls? Were students whose primary language is not English having more trouble? What about those whose parents did not finish high school? The teachers were well aware that the test scores did not look great each year, but they wondered if their students were at least improving over time. With 3 years of SAT-9 data, could they see if students were gaining, staying the same, or falling even further behind?

To launch the data analysis, the team chose one cohort of students who had been enrolled in the school the longest—the 1998-1999 3rd grade. It took a week to get the information from the testing company together. The next task was for the staff to collect information on each student. A survey was created for parents to complete.

Staff did not have experience working with data of this nature, so the team worked with consultants to create a database and conduct the analysis. To look at growth, the normal curve equivalent (NCE) scores from year to year were compared for each student to

determine which students' achievement grew at normal, greater than normal, and less than normal rates. The teachers and administrators, not satisfied with the scores overall, were excited to see that even though the scores were low, the majority of students (74 percent) experienced greater than normal growth in reading and in math.

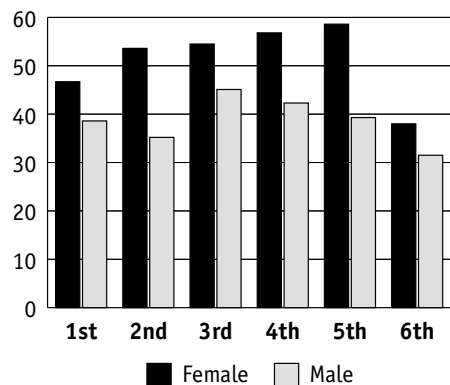
**Change in Mean Reading NCE Scores, 1998 to 1999, by Grade Level**



The findings were used to create education plans for students whose achievement grew at a less than normal rate. These plans were tied to content and skill areas. Analysis showed that the students who grew the least also scored the lowest. Students who were already behind were not catching up. The teachers decided to provide more intensive assistance to these students.

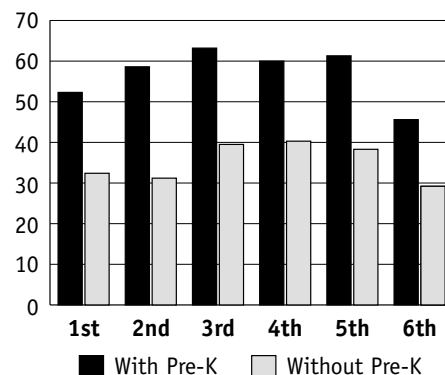
The analysis of test scores by gender revealed differences among subgroups as well.

**Mean Reading NCE Score, by Grade Level and Gender**



As you can see from the chart, girls scored substantially better than boys in each testing category. The average rank of the girls was between the 50th and 60th percentile for each test component, while boys ranked in the 40th to 50th percentile. Some teachers theorized that the lack of a male role model was holding the boys back, while others thought that the difference was due to whether the student had attended pre-school. After further analysis, the data revealed that, indeed, the gender difference disappeared when the analysis accounted for those who attended pre-school, and that there was no difference between the performance of students who had a father at home and those who did not.

**Mean Reading NCE Score, by Grade Level and Pre-school Status**



These findings excited the team and administrators. They decided to continue to discuss these trends with teachers and conduct deeper analyses as more data became available. School leaders, armed with information to take to their board, began to generate enthusiasm among funders for the initiation of a pre-school program. For the teachers, the findings from this analysis were not entirely surprising. Rather, these data provided evidence to back up assumptions and hunches on which teachers and administrators had made program decisions for several years. Hard evidence gave them the means to communicate what they knew to audiences outside the school.

## Related Web Links

- “Accountability: The Key to Charter Renewal,” by Bruno Manno: [www.edreform.com/pubs/accountabilityguide.htm](http://www.edreform.com/pubs/accountabilityguide.htm)
- Annenberg Institute for School Reform: [www.aisr.brown.edu](http://www.aisr.brown.edu)
- Boston College Center for the Study of Testing, Evaluation, and Education Policy: [www.csteep.bc.edu](http://www.csteep.bc.edu)
- Charter Friends National Network: [www.charterfriends.org](http://www.charterfriends.org)
- Charter School Accountability: A Guide to Issues and Options for Charter Authorizers: [www.uscharterschools.org/tech\\_assist/res\\_account.htm](http://www.uscharterschools.org/tech_assist/res_account.htm)
- *Charter Schools in Action*, by Chester E. Finn, Jr., Bruno Manno, and Gregg Vanouerk: [www.edexcellence.net/library/CSIA.html](http://www.edexcellence.net/library/CSIA.html); also see [www.pioneerinstitute.org/research/dialogues/dia33.cfm](http://www.pioneerinstitute.org/research/dialogues/dia33.cfm) for a discussion of the book by Chester Finn at a Pioneer Institute–Harvard Graduate School of Education Forum.
- *Filling in the Blanks: Putting Standardized Tests to the Test*, by Gregory J. Cizek: [www.edexcellence.net/library/cizek.pdf](http://www.edexcellence.net/library/cizek.pdf)
- Massachusetts Charter School Accountability Handbook: [www.doe.mass.edu/cs.www/pdf/acct\\_handbook.pdf](http://www.doe.mass.edu/cs.www/pdf/acct_handbook.pdf)
- Massachusetts Charter School Handbook: [www.pioneerinstitute.org/csrc/cshb](http://www.pioneerinstitute.org/csrc/cshb)
- Massachusetts Charter School Inspection Handbook: [www.doe.mass.edu/cs.www/pdf/insp\\_handbook.pdf](http://www.doe.mass.edu/cs.www/pdf/insp_handbook.pdf)
- Mid-Continent Regional Educational Laboratory: [www.mcrel.org/standards](http://www.mcrel.org/standards)
- National Center for Research on Evaluation, Standards, and Student Testing: [www.cresst96.cse.ucla.edu/index.htm](http://www.cresst96.cse.ucla.edu/index.htm)
- National Center on Education and the Economy: [www.ncee.org/OurPrograms/nsPage.html](http://www.ncee.org/OurPrograms/nsPage.html)
- Project Zero: [www.pz.harvard.edu](http://www.pz.harvard.edu)
- Putnam Valley School District’s standards website: [www.putwest.boces.org](http://www.putwest.boces.org)
- *Raising the Standard* (StandardsWork website): [www.goalline.org](http://www.goalline.org)
- Thomas B. Fordham Foundation: [www.edexcellence.net](http://www.edexcellence.net)
- United States Department of Education charter school website: [www.uscharterschools.org](http://www.uscharterschools.org)
- Work Sampling System® Authentic Performance Assessment for Preschool through Grade 5: [www.hemweb.com/trophy/perfermn/workss.htm](http://www.hemweb.com/trophy/perfermn/workss.htm)