Success in Sight

A Comprehensive Approach to School Improvement



McREL

About McREL

Located in Denver, Colorado, McREL is an internationally recognized, private, nonprofit organization dedicated to improving education for all through applied research, product development, and service. Our Web site (www.mcrel.org), offers hundreds of free research reports and practical guides related to a wide array of education topics. Learn more about *Success in Sight* online at www.mcrel.org/successinsight. To learn how McREL can help your school or district implement *Success in Sight*, contact us at 303.337.0990 or info@mcrel.org.

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Introduction

Schools across the nation, faced with the challenge of helping all students achieve high standards for learning, need clear guidance on how to engage in lasting, effective improvement efforts. But after more than 30 years of education research and countless improvement efforts, no clear consensus exists for how to get the job done.

On one hand, schools are presented with prescriptive, one-size-fits all reform models, which often fail to take into account local context or nuances. On the other hand, schools are given a broad framework or set of principles to guide development of their reform process. With this approach, reform efforts often become so diffuse or abstract that they fail to improve student performance.

The current conversation regarding school improvement appears to be divided between "scientific" and "artistic" approaches to improving schools.

Indeed, in many ways, the current conversation regarding school improvement appears to be divided between those who advocate for prescriptive models for reform and those who call for less directive, "systemic" approaches to improving schools. Take, for example, the ongoing debate over Johns Hopkins University's "Success for All" (SFA) program. In defense of his program, Robert Slavin has asserted that

> *The real contribution [of Success for All] is in demonstrating that an effective program composed of elements that are themselves based on high-quality research can be scaled up to serve a large enough set of schools to matter at the policy level. The potential here is revolutionary. It is now possible to contemplate setting in motion a process of research, development, evaluation, and dissemination that will truly transform our schools (p. 33).*

Critics, however, contend that prescriptive approaches such as Slavin's fail to take into account unique local contexts or allow educators in those schools to act as professionals, making their own decisions about what is best for their students. For example, Bobbie Ann Starnes, president of the Foxfire Fund, wrote in the pages of *Phi Delta Kappan* (2000) that

> *Effectiveness cannot be found in the mediocre sameness that grows out of programs that require lessons, teaching strategies, and materials to be precisely executed in*

> *order to maintain integrity. If only it were that easy! Regardless of the comings and goings of trends, fads, or false prophets, good teachers – guided by a set of articulated beliefs and informed by skill and knowledge of their craft – will, in their individual ways, rise to meet all educational challenges (p. 108).*

At Mid-continent Research for Education and Learning (McREL), a Denver-based nonprofit education research and development organization, we believe the best way to improve schools is to balance a prescriptive content approach and a context-driven process approach. That is why we developed *Success in Sight: A Comprehensive Approach to School Improvement*. *Success in Sight* is based on the "science" of improvement — it provides clear, specific, research-based guidance for what to do in schools. But it also helps schools learn the "art" of continuous improvement by helping them understand the many nuances and complexities of school change.



In many ways, this balance between science and art offers a scaffolded approach to school improvement. Just as scaffolding is erected around a building when it is being constructed or repaired and is gradually removed as the structure is built, McREL initially provides very specific, prescriptive guidance based on the science of effective schools — as captured in a series of research studies and products described later in this document. Over time, McREL helps schools become increasingly responsible for identifying their own student needs and research-based solutions for meeting those needs.

About this document

To explain how *Success in Sight* works, this document describes

- the science of school improvement, that is, the research-based guidance McREL provides schools through *Success in Sight*;
- the *Success in Sight* school improvement process; and
- the art of school improvement, offered as six key principles for improvement that underlie *Success in Sight*.

McREL's research on effective schooling

McREL has conducted five major research studies to synthesize the current body of knowledge about effective schools, leaders, and classrooms. Together, the results of these studies help schools define the "science" of effective schooling and a focus for *what* to do to improve student achievement. It is important to note that all of these studies identified characteristics of schools *that do not require a large influx of additional resources* to implement. In short, they are things that any school, regardless of its funding level, can do to improve student achievement.

What Works in Schools

McREL's meta-analysis of research titled, *A New Era of School Reform: Going Where the Research Takes Us* (2000) examined three decades of research on effective schools and student achievement to determine what characteristics of schools, classrooms, and students are most strongly associated with high levels of student achievement. The findings of this analysis were subsequently translated into *What Works in Schools* (Marzano, 2003), which outlined five school practices, three teacher practices, and three student characteristics correlated with student achievement. These 11 factors (see Fig. 1, p. 4) suggest, in broad brush strokes, critical areas around which schools can focus improvement efforts.

The *New Era* report findings suggest that schools and teachers can have a tremendous impact on student success. As noted in *What Works,* these findings predict that if average students (those scoring at the 50th percentile on a standardized test) are subjected to highly *ineffective* schools and teachers for two years, their performance would drop to the 3rd percentile. That is, they would test lower than 97 percent of students. Conversely, after two years with a highly *effective* schools and teachers, their performance would rise to the 96th percentile. Without question, what schools and teachers do or do not do makes the difference between student success and failure.

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Figure 1: *What Works in Schools* Factors Associated with Student Success

	Factor	Description
School	Guaranteed & Viable Curriculum	*Ensuring teachers address specific content, in specific courses, at specific grade levels, and that the content can be taught in the time available*
	Challenging Goals & Effective Feedback	*Setting academic goals for individual students and the school, monitoring progress toward those goals, and providing timely feedback on progress*
	Parent & Community Involvement	*Engaging parents in day-to-day activities of the school, decision making, and regular communication*
	Safe & Orderly Environment	*Protecting students from physical or psychological harm and maintaining order so learning can take place*
	Collegiality & Professionalism	*Developing teachers' subject-matter knowledge, pedagogical knowledge, and belief in their ability to effect change*
Teacher	Instructional Strategies	*Ensuring teachers' awareness of, and ability to apply, research-based strategies at appropriate times to maximize student learning*
	Classroom Management	*Establishing and enforcing rules and procedures, carrying out disciplinary actions, and maintaining effective teacher-student relationships*
	Classroom Curriculum Design	*Effectively sequencing and pacing learning experiences that are under the classroom teacher's control*
Student	Home Environment	*Parents' communication about school, supervision, and expectations, and parenting styles*
	Learned Intelligence & Background Knowledge	*Students' prior, learned knowledge of facts, generalizations, and principles about a specific domain*
	Motivation	*Students' efficacy, self-worth, emotions, and deeply seated needs and aspirations*

"Beat-the-Odds" Schools

The *What Works* report (Marzano, 2003) identified the characteristics of *all* effective schools, including those with high- and low-needs student populations. To determine the characteristics of schools that are effective in serving high-needs populations (i.e., schools that "beat the odds"), McREL examined the key differences between 49 high-performing and 27 low-performing schools in 10 states. In this study, *High-Needs Schools: What Does It Take to Beat the Odds?* (McREL, 2005), McREL identified four key school components and 13 subcomponents that "beat-the-odds" schools exemplified to a greater extent than did the low-performing schools. These components and sub-components reflected the *What Works* factors plus one additional key factor: effective *leadership*. In addition, McREL found that not only do these key components and sub-components (see Fig. 2) influence student achievement, they also influence one another, which suggests that schools function as interconnected systems.

Figure 2: Characteristics of Schools that "Beat the Odds"

Component	Sub-component
Instruction	Structure (*clear student goals, strong classroom management*)
	Individualization (*differentiated instruction based on data*)
	Opportunity to learn (*challenging curriculum tied to standards*)
School environment	Orderly climate (*clear and enforced rules for student behavior*)
	Assessment & monitoring (*regular review of performance*)
	Parent involvement (*positive & productive parent relationships*)
	Academic press for achievement (*high expectations for all*)
Professional community	Professional development (*improving teacher practices*)
	Collaboration (*sharing teachers' work and expertise*)
	Deprivatization of practice (*teachers working across classrooms*)
	Support for teacher influence (*leadership shared with teachers*)
Leadership	Shared mission and goals (*common vision & clear focus for resources*)
	Instructional guidance (*monitoring teachers to ensure good instruction*)
	Organizational change (*guiding changes to policy and culture*)

School Leadership that Works

To identify what leadership behaviors impact student achievement, McREL researchers reviewed studies involving 2,802 schools, approximately 14,000 teachers, and 1.4 million students. The study, *Balanced Leadership: What 30 Years of Research Tells Us about the Effect of Leadership on Student Achievement* (2003), not only reaffirmed the importance of leadership in school performance, but also helped McREL identify 21 leadership responsibilities significantly correlated with higher levels of student achievement (see Fig. 3) . This research was translated into practical guidance for school leaders, which ASCD published as *School Leadership that Works: From Research to Results* (Marzano, Waters, & McNulty, 2005). McREL has since identified which of the 21 responsibilities leaders should emphasize to help their schools address the factors identified in *What Works in Schools*.

Classroom Instruction that Works

McREL has synthesized more than 100 research studies on classroom instruction and identified nine categories of instructional strategies that are correlated with higher student achievement. These results were published through ASCD as *Classroom Instruction that Works* (Marzano, Pickering, & Pollack, 2001). The instructional categories are as follows:

1. Identifying similarities and differences
2. Summarizing and note taking
3. Reinforcing effort and providing recognition
4. Homework and practice
5. Nonlinguistic representations
6. Cooperative learning
7. Setting goals and providing feedback
8. Generating and testing hypotheses
9. Cues, Questions, and Advance Organizers

Focusing on better classroom instruction often has an immediate, positive impact on student performance.

Focusing on better classroom instruction can have an immediate and positive impact on student performance. For example, schools in Indiana participating in McREL's TOPHAT consortium (see p. 16) focused on applying these nine strategies in their classrooms. After doing so, many schools saw positive, in some cases dramatic, gains in student achievement.

Figure 3: Balanced Leadership Responsibilities

Responsibilities	Definition *The extent to which the principal …*
Affirmation	*… recognizes and celebrates school accomplishments and acknowledges failures.*
Change agent	*… is willing to and actively challenges the status quo.*
Communication	*… establishes strong lines of communication with teachers and among stakeholders.*
Contingent rewards	*… recognizes and rewards individual accomplishments.*
Culture	*… fosters shared beliefs and a sense of community and cooperation.*
Curriculum, instruction, assessment	*… is directly involved in the design and implementation of curriculum, instruction, and assessment practices.*
Discipline	*… protects teachers from issues and influences that would detract from their teaching time or focus.*
Flexibility	*… adapts his or her leadership behavior to the needs of the current situation and is comfortable with dissent.*
Focus	*… establishes clear goals and keeps those goals in the forefront of the school's attention.*
Ideals/beliefs	*… communicates and operates from strong ideals and beliefs about schooling.*
Input	*… involves teachers in the design and implementation of important decisions and policies.*
Intellectual stimulation	*… ensures that faculty and staff are aware of the most current theories and practices and makes the discussion of these a regular aspect of the school's culture.*
Knowledge of curriculum, instruction & assessment	*… is knowledgeable about current curriculum, instruction, and assessment practices.*
Monitors/ evaluates	*… monitors the effectiveness of school practices and their impact on student learning.*
Optimizer	*… inspires and leads new and challenging innovations.*
Order	*… establishes a set of standard operating principles and procedures.*
Outreach	*… is an advocate or spokesperson for the school to all stakeholders.*
Relationships	*… demonstrates an awareness of the personal aspects of teachers and staff.*
Resources	*… provides teachers with the material and professional development necessary for the successful execution of their jobs.*
Situational awareness	*… is aware of the details and undercurrents in the running of the school and uses this information to address current and potential problems.*
Visibility	*… has quality contact and interactions with teachers and students.*

Classroom Strategies for Helping At-Risk Students

In 2002, McREL conducted a synthesis of recent research on instructional strategies to assist students who are low achieving or at risk of failure (Barley, et. al, 2002). From this synthesis of research, McREL identified six general classroom strategies that research indicates are particularly effective in helping struggling students achieve success (Snow, 2003):

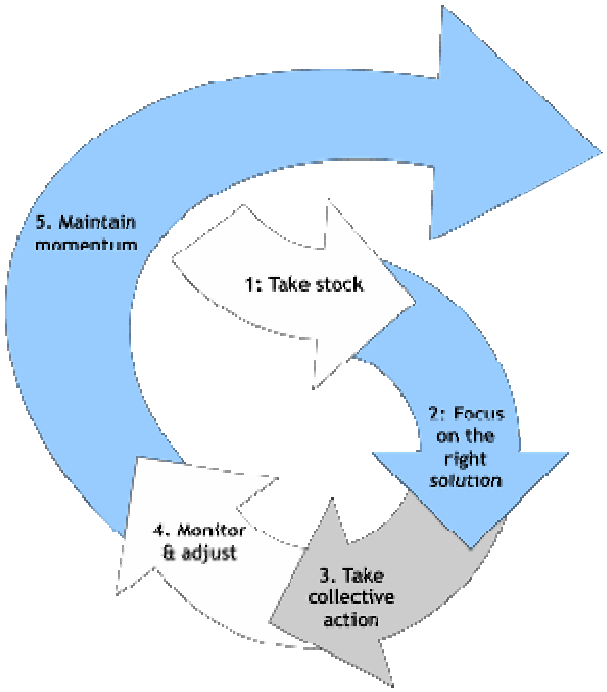
1. Whole-class instruction that balances constructivist and behaviorist strategies
2. Cognitively oriented instruction which combines cognitive and meta-cognitive strategies with other learning activities
3. Small groups of either like-ability or mixed-ability students
4. Tutoring that emphasizes diagnostic and prescriptive interactions
5. Peer tutoring, including classroom-wide peer tutoring, peer-assisted learning strategies, and reciprocal peer tutoring
6. Computer-assisted instruction in which teachers have a significant role in facilitating activities



The *Success in Sight* improvement process

Success in Sight guides schools through a five-stage cyclical process for school improvement (see Fig. 4). The stages in this process are not necessarily sequential; in practice, they often overlap. For the sake of clarity, though, we have separated them into five distinct stages. It is also worth noting that while these stages may appear fairly straightforward and not entirely unique — indeed, many school reform models identify similar phases or steps for reform — there are important nuances in each that are crucial to the success of the improvement efforts. On the following pages, we attempt to highlight these nuances through a series of questions school officials should ask themselves during each stage. How effectively schools address these nuances is, in many ways, the "art" of school improvement and often, a key to the success of their efforts.

Figure 4: The five stages of the *Success in Sight* process



Take Stock

- Assess readiness for change
- Conduct broad needs assessment
- Create a vision for success



Stage 1: Take stock

The first stage of the school improvement process is to take stock of the school's situation, which includes assessing readiness for change, examining vision, and taking a broad look at student data and other indicators to identify the most pressing issue facing the school.

Are we ready for change?



One of the first issues schools should examine upon beginning school improvement is their readiness for change. Are the structures, processes, and attitudes needed to support the heavy lifting of school improvement in place? Are teachers open to change? Is there a sense of urgency or a widespread recognition of the need for change among school staff? Obviously, the answers to these questions influence the initial focus of improvement efforts. In some cases, schools may already have many structures in place — for example, a dedicated school leadership team and teacher study groups — that can support improvement efforts. In other cases, they may need to establish these structures before moving forward. Or if urgent action is needed, they may need to create these support structures at the same time that they address critical needs.

What's the nature of our problem?

One of the first and most important steps in the school improvement process is to conduct an honest assessment of the school's situation and its students' needs. Schools must learn to ask the right questions about their situation by examining the wide array of factors that influence student achievement — including district supports (or lack thereof), teachers' knowledge and skills, teachers' attitudes, and other external and internal factors that influence student achievement. The needs assessment at this stage is very global. It helps the school understand itself as a system and determine how well the elements of the system are aligned. McREL's

publication *Asking the Right Questions: A Leader's Guide to Systems Thinking about School Improvement* provides a framework for helping leadership teams take a systems perspective of their school in order to identify underlying technical, personal, and organizational issues that influence student success.

Do we have a vision for success?

A key part of continuous improvement efforts is creating a "purposeful community" which has shared goals and an understanding of what it will take to achieve those goals. Although it may seem counter-intuitive for schools that are struggling just to get by to spend time developing a vision for success, it is important to take the time to compare the current reality against where the school needs or wants to be in the future. The ultimate goal of school improvement should be more than avoiding sanctions; it should be to create an exemplary school, one where all students succeed.

In reality, of course, many schools enter the change process feeling overwhelmed, if not a little panicked. So sometimes it is necessary to simply *do* something to create some quick positive results. But eventually, schools must develop a compelling vision for what their school *could be* to energize everyone to do the hard work of school improvement. Identifying what people are passionate about and tapping this energy is necessary to help everyone take ownership of the actions they will decide to take later.

In summary, schools must go beyond the technical process of simply looking at quantitative data. They must learn to read between the lines, using qualitative data and professional wisdom to assess what is really going on in the school. This ability to take stock of the situation and tap the passions of people in the school is part of the art of school change, and a crucial component to effective improvement efforts.



Focus on the right solution

- Use data to identify strengths, prioritize needs, and establish improvement goals
- Use research to identify solutions
- Identify specific improvement strategies
- Anticipate and manage the implications of change
- Develop a system to monitor progress

Stage 2: Focus on the right solution

Schools must plan for improvement. But even more important, they must develop the *right* plan, which requires carefully balancing the science and art of school improvement.

What are our real needs?

Identifying the right problem to solve is one of the keys to successful school improvement. Too often, though, schools fail to properly take stock of their situation and identify the right solution for the *wrong* problem. For example, a school with low student mathematics achievement might assume that the best solution is a new research-based mathematics program. However, if the deeper, underlying reason for poor student achievement is teacher beliefs that not all students can succeed in mathematics, the new mathematics program will likely not result in gains in student achievement. In the end, the school may find itself spinning its wheels, caught in what Jim Collins (2001) calls a "doom loop" — a hopeless cycle of constant activity, moving from one fad to the next without producing lasting results.

To identify their real needs, schools must take a hard look at achievement data and conduct a thoughtful analysis of those data. Bear in mind that achievement data provide only a part of the picture. To identify strengths, prioritize needs, and establish goals for improvement, schools also need to examine how a whole host of other factors, such as parent involvement, teachers' classroom management methods, and student background knowledge, are affecting student achievement.

What does research say are the right things to do?

Harvard scholar Richard Elmore, in a study commissioned by the National Governor's Association (NGA), concluded that having the right focus of change is a key to improving schools and increasing student achievement. In his report, *Knowing the Right Things to Do: School Improvement and Performance-based Accountability* (2003), Elmore states,

> *Knowing the right thing to do is the central problem of school improvement. Holding schools accountable for their performance depends on having people in schools with the knowledge, skill, and judgment to make the improvements that will increase student performance (p. 9).*

Through our series of research studies (see pp. 3-8), McREL has helped school leaders identify the "right things to do" in school improvement. This research base goes a long way toward helping to define the science of school improvement — that is, *what* schools should do and where they should focus their efforts to improve student performance.

Which strategies are right for us?

Low-performing schools often understand that their problems are complex and no silver bullet will solve them. So, in response to this complexity, they develop sweeping improvement plans that attempt to address all of their problems at once. As a result, schools often attempt to do too much, and in the end, accomplish very little. Thus, it is important for schools to use data to focus their efforts on just one or two strategies, such as using a systematic process for identifying and teaching content-specific vocabulary, which helps students, especially those who enter schools with less background knowledge than more privileged students, quickly become familiar with key concepts and terminology that are crucial to their ongoing learning and success. Staying focused on one or two research-based strategies helps schools generate quick wins, which, in turn, inspire stakeholders to undertake increasingly complex, bigger picture efforts.

With the myriad of issues that arise daily in a school, it is easy for schools to lose sight of what is important. Successful schools, however, always keep student learning at the forefront, adopting as their mantra the question, *How are we improving student learning?* They ask themselves whether proposed changes (or resistance to them) are related to improving student learning or making life easier for adults.

In sum, it is important for school leadership teams to employ systems-wide thinking while, at the same time, staying focused on making improvements one step at a time. Eventually, successful school improvement efforts do address the entire school system, but in a systematic manner. Put another way, effective schools understand the big picture while taking deliberate action on their way to changing the whole system.

What are the implications of proposed changes for stakeholders?

As noted in *Asking the Right Questions: A Leader's Guide to Systems Thinking about School Improvement* (McREL, 2000), another key part of the art of school improvement is understanding that changes can have complex

Figure 5: Characteristics of First- & Second-Order Changes

First-Order Change	Second-Order Change
An extension of the past	A break with the past
Consistent with prevailing organizational norms	Inconsistent with prevailing organizational norms
Congruent with personal values	Incongruent with personal values
Easily learned using existing knowledge and skills	Requires new knowledge and skills

ripple effects across the system. For example, even a seemingly simple change, like creating study groups to help teachers learn new instructional strategies, could alter their schedules and diminish their autonomy. Thus, some teachers may resist or seek to undermine this effort.

In McREL's publication, *School Leadership that Works* (2005), we note that school leaders who are successful in guiding school improvement efforts understand the concept of "magnitude of change." Magnitude of change refers not to the size of the change, but rather to the implications the change has for those who are expected to implement it or will be affected by it. Changes can have either "first-order" or "second-order" implications for stakeholders (see Fig. 5). It is important to note that the magnitude of change lies in the eye of the beholder and that the same change may have different implications for different stakeholders. Our research suggests that leaders need to understand whether changes are first– or second-order for staff members and differentiate their leadership styles accordingly.

How will we know when we have succeeded?

A key principle of school improvement is to create a school culture that relies on data to guide changes and improvement efforts. This means schools need to think up front about how they will gather data to determine whether they are properly implementing their plan and whether their plan has succeeded. For example, if schools are adopting new instructional strategies, they may also need to develop rubrics to define what it will look like in classrooms when these strategies are fully implemented.

Stage 3: Take collective action

After identifying a focus and plan for improvement efforts, the next step is to take action. This is where school improvement efforts often break down. Schools develop thoughtful plans but fail to implement them well. To ensure proper implementation, school leadership teams should consider two dimensions for these actions: first, their breadth — that is, how many people in the school are taking action; and second, their depth — how to ensure that the actions will have an impact on current practices and student learning.

Are we all working toward the same end?

A key goal of *Success in Sight* is to help schools develop a "purposeful community" — in other words to create an organization that shares a belief in its ability to accomplish goals and works together to accomplish them. To help foster and encourage this kind of community, it is prudent to periodically re-examine vision and mission statements as well as structures (e.g., study groups, collaborative teams) and norms for working together.

Is each individual committed to taking real action?

It is easy for everyone to nod in unison when it comes to a set of vague agreements about what everyone will do in the collective. But these agreements only translate into effective action when they are specific and agreed to by all. It is vitally important to develop shared agreements that make it clear how everyone in the school will work together to improve student achievement. Shared agreements clearly describe *what* teachers will do in their classrooms and with their students to move the school toward success and *how* they will be held responsible for living up to their end of the bargain. Will they draft different lesson plans? Will they teach reading for 90 minutes? Without these specific agreements, it's easy for people to avoid taking the steps they need to help the school reach its goals.

Do we know *what* to do as well as *how*, *why*, and *when* to do it?

It's important to recognize that in order to translate research into action in every classroom, schools must help teachers learn not only *what* to do, but also *how* and *why* to do it. *Know-how* usually comes with practice, by giving teachers time to apply new research-based practices in their own classrooms and to share what they are learning with one another. Successful schools often create teacher study groups for this purpose —

Take collective action

- Establish shared ownership of the school improvement plan
- Create shared agreements for accomplishing goals
- Develop deep knowledge and skills needed to improve student learning

Success in Sight in South Dakota

Three years ago, when staff members at Alcester-Hudson Elementary School learned that the South Dakota Department of Education and Cultural Affairs had designated the school "in need of improvement," they experienced the same mix of emotions a family might experience upon the death of one of their own — denial, anger, grief, and uncertainty about what to do next.

"Looking back, going on school improvement status was the best thing that ever happened to us," said Kathy Johannsen, the school's technology coordinator. "But at the time, we were surprised, embarrassed, and humiliated. We always thought of our school as a good school. To be publicly labeled as 'unsatisfactory' was just horrible."

But after three years of using the *Success in Sight* process, student achievement has risen dramatically at the school. On the most recent statewide assessment, 94 percent of students tested proficient on the state math test and 100 percent of students tested proficient in reading. The school that was once in "need of improvement" now has the state's highest rating: "commendable." How did they do it? We believe there were seven keys to their success:

1. Sharing leadership
2. Getting on the same page
3. Getting hooked on data
4. Staying focused (taking it one step at a time)
5. Looking to research for answers
6. Building a professional learning community
7. Understanding that from small things, big things grow

To read the complete Alcester-Hudson story online, go to www.mcrel.org/successinsight, and click on "Success Stories."

groups that acquire new research-based strategies for improving student learning, work together to devise ways to apply those strategies in their own classrooms, and share their experiences with each other.

In addition to learning *how* to implement research-based strategies in their classrooms, teachers also need to understand *why* to implement those strategies. That is, they must understand in which situations and with which students research-based strategies are likely to have the most impact. Indeed, in many successful schools, we hear teachers say that the biggest difference they experience in learning from research about how to improve student achievement is that they become more intentional with their instruction techniques. That is, while they may already employ some of the strategies, they now fully understand *when* and *why* to use them.

In the end, the goal of continuous improvement is to create a purposeful community — a group of learners that works together to use all available assets, manage the implications of change, and establish structures and processes that support them in finding solutions to the challenges they face. It's important for school improvement efforts to strike the right balance between telling teachers *what* to do and respecting their intelligence, professionalism, and ability to create their own solutions for improving student performance. This means giving teachers enough guidance to make changes in their classrooms and providing them with opportunities to create their own demand for learning.

Stage 4: Monitor and adjust

A school leader we worked with in Alcester-Hudson Elementary School in South Dakota (see sidebar, p. 16) reported that a key to the school's success was that they became "hooked on data." That is, they learned to constantly ask themselves, "Is this working?" and "How do we know it's working?" and to use data from a variety of sources to answer these questions.

Are we doing what we said we would do?

Because implementation is often where school improvement efforts get off track, it is important to monitor progress on how well improvement strategies are being implemented. Conducting formal classroom observations and reviewing lesson and unit plans are two obvious ways to track implementation. But informal observations can also be helpful. One indicator of change might be the nature of teachers' conversations. Are teachers developing a new vocabulary to communicate about classroom challenges and how to address those challenges? Are faculty lounge conversations becoming more focused on applying professional knowledge to the needs of students?

Are we having a positive impact on students?

In addition to monitoring student performance at the school level, teachers also need to track individual student performance to determine whether changes in instruction and classrooms are having their desired effect. Classroom assessments are often-overlooked, yet nonetheless valuable, sources of information about the impact of new instructional strategies on student learning. For some teachers, this can be a paradigm shift when they realize that classroom assessments not only tell them how well students are learning but also how well their *instructional strategies* are working. For example, if most students in the class incorrectly answer the same set of test items, that may be an indication that the teacher should modify his or her instructional strategies for that lesson.

What successes can we celebrate?

McREL's research on schools that "beat the odds" (see p. 5) has found that effective schools maintain a clear focus on high expectations for all, or what researchers labeled "academic press for achievement." Part of this focus includes celebrating, when appropriate, what is really important to the school — students' success in learning.

Monitor and adjust

- Use school- and classroom-level data to track student progress, both as a group and individuals
- Identify successes to celebrate
- Use formative and summative data to make course corrections as needed

Success in Sight in Indiana

In 1999, Dr. Ilene Block of the Indiana Department of Education began calling administrators from high-poverty, low-achieving school districts in the Hoosier state and posed the question, "How would you like to improve your test scores?"

Seven districts (known as "corporations" in Indiana) took Block up on her offer to participate in the Teaching Optimization Producing Higher Achievement Trends (TOPHAT) consortium. From the start, the key idea underlying TOPHAT was that good instruction is the key to higher student performance. TOPHAT provided schools with ongoing professional development based on McREL's research on effective classrooms and schools (see pp. 3-8). At the same time, McREL trained a cadre of professionals to provide schools and corporations with ongoing coaching to help them learn the "art" of continuous improvement.

After four years of implementing the *Success in Sight* approach to school improvement, all seven districts participating in TOPHAT experienced steady gains in student achievement. More important, participants say their schools developed the capacity to continue to grow as professionals, looking at the data and using research to search for answers. "TOPHAT has prepared us for the expectations of No Child Left Behind," said Knox Superintendent Allen Bourff. "But we are focused on more than just AYP (Adequate Yearly Progress). We're focused on maintaining our growth and doing the right things for our students."

To read the complete Indiana story online, go to www.mcrel.org/successinsight and click on "Success Stories."

We should note, however, that student test results, while important, are essentially "lagging indicators" of school performance because other factors must be in place first before student performance begins to improve. Just as economists track "leading indicators" of the economy's performance, McREL's research on effective schools (see pp. 3-8) has identified several school factors which can be viewed as leading indicators of student performance. These factors include such things as teacher collegiality and professionalism, safe and orderly classrooms and school environments, and alignment of curriculum, instruction, and assessment. Given that school improvement can be a long process, it is important to use data in a formative way to make mid-course corrections as well as to identify progress toward these leading indicators of improving school performance along the way.

Stage 5: Maintain momentum

A key goal of *Success in Sight* is to build schools' capacity for continuous improvement by helping them establish structures and processes that will help them not just continue, but build on, their successes.

How are we planning to sustain the improvements we've made?

In McREL's publication, *Leadership Folio Series: Sustaining School Improvement* (2003), we note that "initiating change is not easy, but sustaining the improvements that result from change is even harder" (p. 1). That is because a number of factors, which interact in complex and unexpected ways, contribute to the sustainability (or demise) of improvement efforts.

To sustain improvement efforts, schools must create a shared vision for success, which helps them work and learn together to improve student outcomes. At the same time, they need to create a culture that relies on data to plan, implement, and sustain reform through ongoing professional learning, thoughtful resource allocation, and effective communication. Finally, they need to devise ways to maintain their improvements and culture, even when current staff members leave. Mentoring programs, for example, can help schools make their expectations clear to new teachers and help them begin to acquire the knowledge and skills they need to support the school's vision and goals.

What should be the focus of our next round of improvements?

Tennis star Arthur Ashe once observed that "success is not a destination but a journey." Similarly, high-performing schools are never satisfied with "good enough," but are constantly looking for ways to improve. Thus, this five-stage process becomes a cycle with the first improvement effort helping to create momentum that leads to the second effort, and so on.

In *Good to Great* (2001), Jim Collins describes the power of small successes:

> *Tremendous power exists in the fact of continued improvement and the delivery of results. Point to tangible accomplishments – however incremental at first – and show how these steps fit into the context of an overall concept that will work. When you do this in such as way that people see and feel the buildup of momentum, they will line up with enthusiasm (pp. 174-175).*

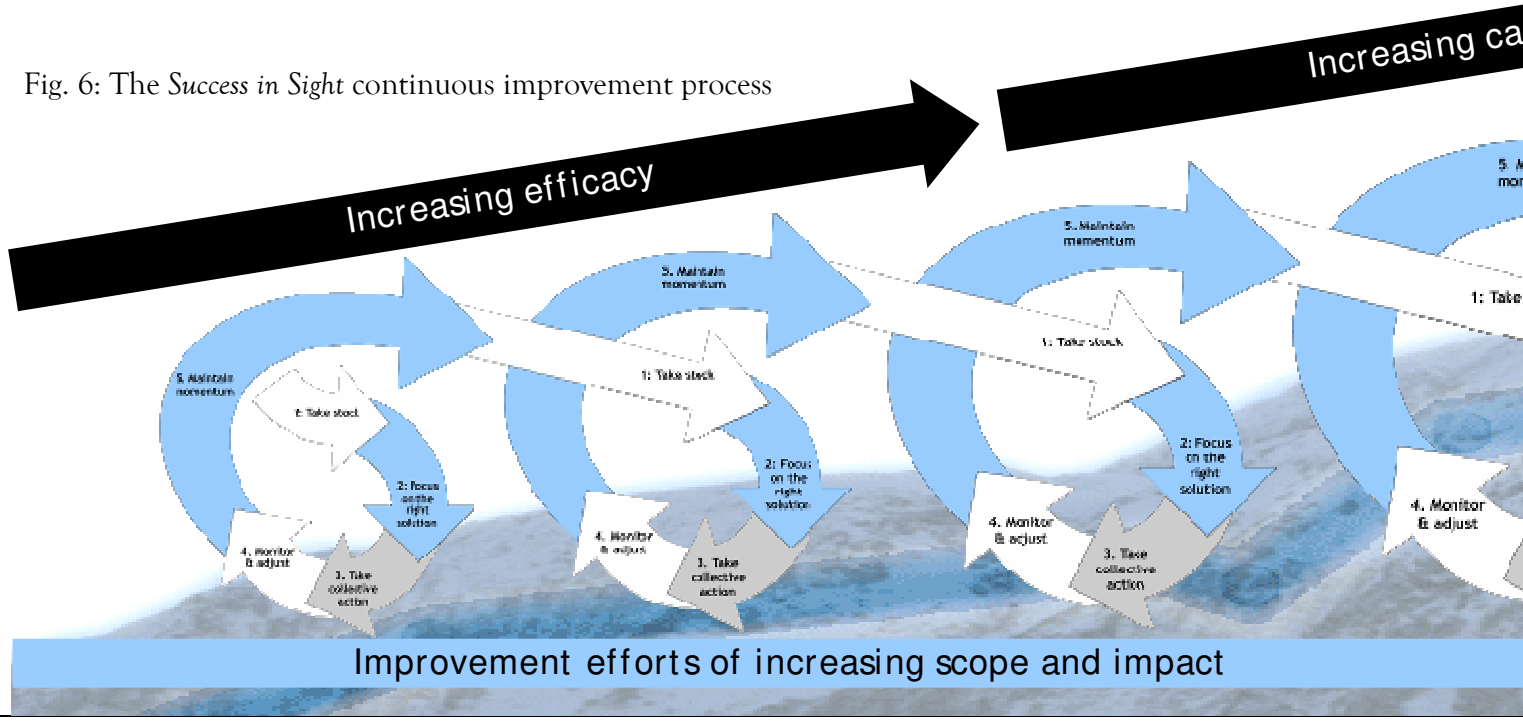
Maintain momentum

- Identify strategies for maintaining current efforts
- Identify new opportunities for improvement — the next improvement cycle

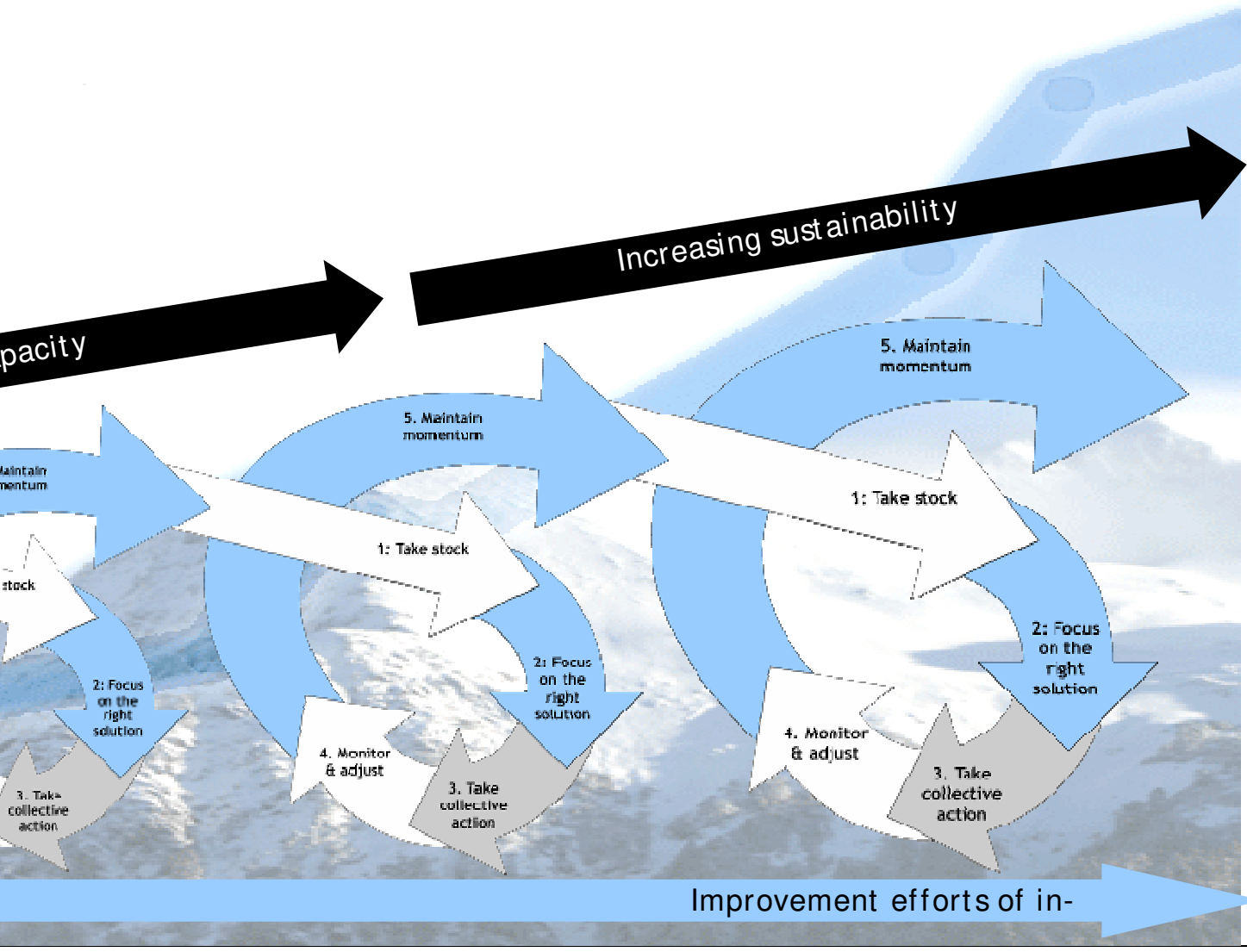
Collins calls this build up of momentum "the flywheel effect," conjuring up the image of an enormous industrial wheel, which turns slowly at first, only after great exertion of effort. Once the wheel is moving, its momentum begins carrying it forward, making each revolution easier. The same principle applies to school improvement efforts. The first improvement initiative is often arduous, as a great amount of effort is exerted simply to establish the structures, routines, and processes, needed for improvement.

The second time around, though, the process get easier, since many of the structures are already in place and school staff are beginning to gain a sense of collective efficacy — a belief that they can accomplish more together than alone. As momentum begins to build, the school can tackle larger and more systemic issues. In our work, we sometimes call this the "fractal experience." Fractal is a geometric term that refers to a pattern that is reproducible at any magnification or reduction within the whole.

Fig. 6: The *Success in Sight* continuous improvement process



McREL uses the term "fractal experience" to describe a small, carefully designed improvement experience that serves a dual purpose: to teach improvement processes and to begin to build collective efficacy that encourages school staff to take on ever-larger challenges. As shown below in Fig. 6, increasing efficacy leads to increasing capacity, and ultimately, to increasing sustainability. Thus, the key outcome of McREL's *Success in Sight* program is that school staff members learn how to take ownership of their own continuous improvement efforts and develop the capacity to tackle new challenges.



Key principles of school improvement

As a result of applying the *Success in Sight* program in a variety of settings, we identified six key principles for school improvement. Some of these principles cut across all five stages and some apply to only a particular stage, but we believe all are important enough to warrant being highlighted here as key principles of effective school improvement.

Principle 1: Look to research

Successful schools use research to ensure that their improvement efforts are focused on changes that make a significant difference for students.

Principle 2: Get "hooked on data"

Effective schools create a culture of data, in which staff members use data to answer, I*s this working?* and *How do I know it's working?*

Principle 3: Keep the focus on student learning

Successful schools keep student learning at the forefront of their conversations and efforts. They constantly ask themselves, *How is what we are doing going to help students achieve high standards for learning?*

Principle 4: Think systemically, act systematically

Effective school improvement efforts are at once focused *and* systemic. That is, they systematically address specific short-term strategies as part of a larger, long-term effort to create lasting systemic change.

Principle 5: Manage the implications of change

Changes worth making are often "second-order" changes for some or all stakeholders. Thus, leaders need to understand and manage the implications of changes for staff members .

Principle 6: Keep success in sight

Schools should begin with the end in sight. That is, early on and throughout the improvement process, leaders must articulate a compelling vision for change and find ways to sustain and build on their successes.

Final thoughts

Looking back at our experiences as we have developed *Success in Sight*, it has become apparent that school improvement involves finding the proper balance on a number of fronts. Most notably, effective school improvement requires a balance between the science of effective schooling — that is, research-based guidance and technical knowledge required to improve schools — and the art of reform — a deep understanding of the nuances and complexities of change and continuous improvement.

School improvement must be systemic, yet focused on concrete strategies for improving student achievement. That is, school leadership teams must understand the big picture, be aware of the complexity of their schools' systems, and have a long-term plan for addressing those complexities. At the same time, though, they must stay focused on realistic, practical changes and take the improvement process one step at a time.

School improvement must be systemic, yet focused on concrete strategies for improving student achievement.



Similarly, we have noted that effective change teams need to display the right mix of realism and idealism. That is, they must be able to take a hard look at data and be honest about where they are. Just as important, they need to be able to craft a compelling vision for change, one that creates the widespread optimism and commitment needed to create a better school.

This need for continual fine-tuning may help answer the question we posed in the beginning of this document: Why, when we know so much about *what* to do to improve student achievement, does school improvement remain so difficult? The answer may be that school improvement is so difficult because it's a constant balancing act. We hope that the lessons provided in this document can help school leaders and leadership teams successfully balance the paradoxical challenges of school improvement.

The knowledge that ordinary schools have found a way to accomplish extraordinary improvements can provide others with the inspiration and courage to undertake efforts that can make a difference in the lives of their students. In summary, we trust that this document provides many other schools with the insights they need to put success in sight. McREL



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