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## SPOTLIGHT

# Unleashing the Full Power of Strategic Planning

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# Unleashing the Full Power of Strategic Planning

For most school districts, strategic plans are lofty documents that capture aspirational “mission,” “vision,” and “goals.” Articulating these categories is an important step in setting a direction for the district and helps galvanize many stakeholders.

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Yet, defining the expansive areas of agreement does not in and of itself constitute strategic planning. For one, generally the only way to assure widespread buy-in is to create a laundry list of goals that satisfies each segment of stakeholders. All of these goals are desirable, but not all are likely attainable within the period of the strategic plan. Moreover, the goals are almost always expressed solely in terms of student achievement. Measures of student achievement certainly capture the outcome of district performance. But, they reveal little about the daily activities and processes that will ultimately enhance student performance. The non-academic arms of the district may feel especially isolated from strategic plans that do not mention how finance and operations contribute to the district’s overall mission. Finally, broad strategic statements unaccompanied by specific action plans are likely to be neglected during times of economic distress. Indeed, strategic initiatives are often the first casualties in the face of budget cuts.

Expressing a strategy by establishing mission, vision, and goals is only the first step in the broader strategic planning process. Strategic planning recognizes the futility of strategy that is not linked to execution and revision. Using the articulation of a strategic direction as the foundation, strategic planning should be a systemic process that:

- creates a clear and actionable strategy for the district;
- executes this strategy by translating it into the everyday work of all functions of the district; and
- uses the results as a learning mechanism to maintain, or, if necessary, adjust the strategy.

## A Strategic Planning Process For School Districts

Naturally, not all the aspects of “strategy,” as it is conceived in the corporate world, transfer to the school district. Indeed, the field of corporate strategic analysis tends to presume that a company can devise its strategy from scratch. Using the now prevalent “Five Forces” framework conceived by pioneering strategy scholar Michael Porter, a company can study an industry, assess the existing competitors within it, consider the probability that new competitors will arise, evaluate the strength of suppliers and of customers, and question whether a substitute product could emerge. Based on this analysis, a company can then choose a desirable industry, or, at least, an attractive segment of an industry.

School districts do not have the latitude to operate with such a blank slate. As public mandates, they cannot pick the students and parents who are their market. And, all public schools must have the same general goal of an education that meets and exceeds state and federal standards and provides each student the necessary educational tools to reach his or her full potential.

Student achievement is certainly the school districts’ ultimate mission. But, the specific priorities that must be carried out to attain this will diverge widely across districts. Moreover, districts must compete for the human capital and financial resources that align with their specific priorities. And, increasingly, districts must compete with charter and independent school options that force public schools to define their “value proposition”—the activities that differentiate an organization and make it able to sustain high-level performance.<sup>1</sup>

The work of the Montgomery County Public Schools (MD) aptly illustrates the relevance of thinking strategically for school districts. When Dr. Jerry Weast assumed the superintendency of Montgomery County in 1999, he confronted a mandate to improve student performance drastically, particularly for under-achieving groups. Dr. Weast's inspection of the district, together with his analysis of student data, convinced him that the district was divided into two regions, each with starkly different socioeconomics. The urban center of the county—termed the “Red Zone”—suffered from poverty and poor student performance. The surrounding suburban areas—labeled the “Green Zone”—were significantly wealthier and had correspondingly higher student achievement. (See *The District Management Journal*, Volume 3, Winter 2010, “Challenging the Status Quo: An Excerpt from *Leading for Equity: The Pursuit of Excellence in Montgomery County Public Schools*” by Stacey M. Childress, Denis P. Doyle, and David Thomas.)

The reality of this inequality galvanized Dr. Weast and his leadership team to articulate an overarching strategic priority of preparing all students for college and high-wage work. Specifically, the minimum level of achievement expected of all students called for:

- A score of 1650-plus on the SAT,
- A score of 24-plus on the ACT,

- Demonstrated success in AP courses or exams or successful completion of an International Baccalaureate (IB) program.

While Montgomery County's strategy of equality together with rigor may seem similar to many other districts' strategic plans, the distinction came in how Montgomery County prioritized the execution of its strategy. Once the district had enunciated a clear strategy, it then tapped the full power of strategic planning by aligning its resources to deliver on this strategy. Dr. Weast described the creation of a definitive strategy as “finding your North Star.” With this identified, Dr. Weast explained, “you can begin aligning your district's systems and processes to hit the target.”<sup>2</sup>

### Stage 1: Create A Strategy

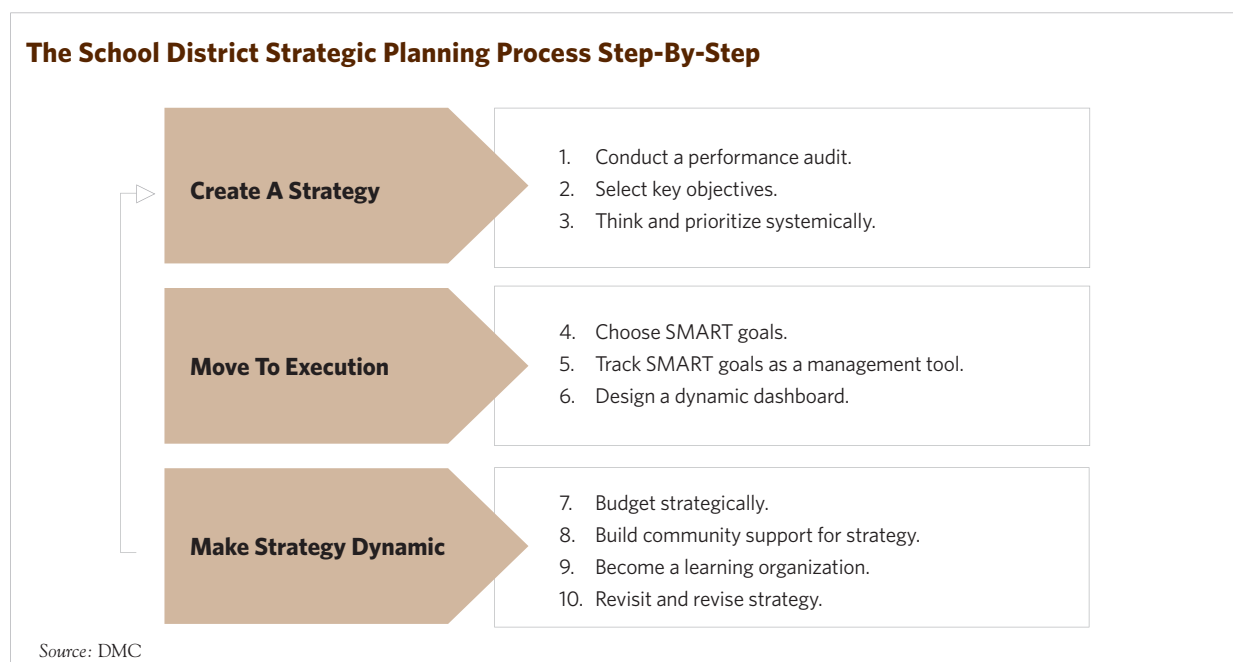
#### 1. Conduct A Performance Audit

A good way to start sharpening the district value proposition is through a performance audit to determine what demands the district currently fulfills and what deficiencies need to be addressed.

An audit can be big or small, comprehensive or focused, as long as it seeks out actionable information that can help the district better serve its stakeholders.

A thorough audit should harness both the quantitative >

FIGURE 1



metrics of academic data and stakeholder responses as well as the qualitative knowledge gleaned through focus groups, in-depth interviews, and bulletin boards. A comprehensive audit should be designed to assess the full range of the district's work:

- **Academic:** The audit should disaggregate student performance data. Ideally, it should go beyond the NCLB-mandated categories such as race and gender to break down performance by program, class, and teacher.
- **Financial:** To be able to determine the return on investment for dollar spent, the audit should link disaggregated student data to program cost, which should include the allocation of fixed cost items such as overhead and salaries. While program costs are the most useful in order to calculate return on investment, the audit should also examine school-level budgets as an indication of equity across the district.
- **Operations:** The audit should track performance in all functional areas and service to all stakeholders. It should, for example, gauge customer service through surveys of parent satisfaction.

Given its potential breadth, the audit should be a project led centrally by the superintendent and executive leadership, working in conjunction with the school board and such other offices as communications.

## 2. Select Key Objectives

The insights of the performance audit should serve as the foundation for the district's strategy. At the same time, however, the strategy cannot simply take the form of a roster of desires expressed by the various stakeholders. The list would be too long, incoherent, and unachievable.

It falls to the district leadership to amalgamate the stakeholders' wishes into a doable set of strategic objectives for the district. These objectives should distill the preferences expressed during the audit into priorities that will serve students most effectively given the constraints of the district.

In the final analysis, the strategic priorities that most districts decide to emphasize can be boiled down to a few broad agendas. This becomes apparent by making the realistic assumption that student performance is a normalized curve, with the peak of the curve representing average performance and the areas to the left and right of the peak signaling below and above

FIGURE 2

### Raising the Average Performance

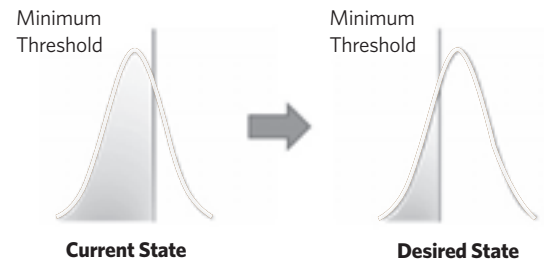


FIGURE 3

### Reducing the Number of Low Performers

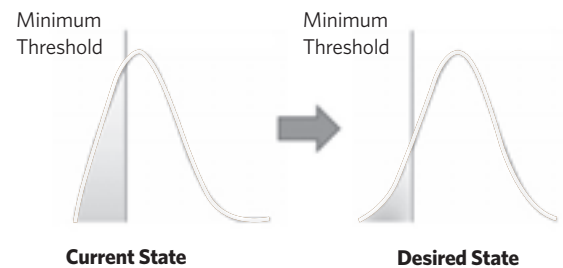
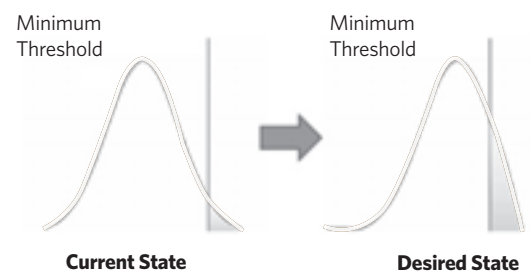


FIGURE 4

### Raising the Number of Top Performers



Sources of Figure 2-Figure 4: Bryan Hassel, *Public Impact*.

average performance, respectively. In short, most school districts' strategic objectives can be depicted as changes to the curve. A district whose audit has revealed low average student performance will want to shift the whole curve to the right (Figure 2). A district that has too many performers below the average, as in the case of Montgomery County, will want to reduce the leftward

tail of the curve (Figure 3). Conversely, a school aiming for more top performers will focus on raising the rightward tail of the curve (Figure 4). In all cases, the current shape of the curve, determined through the academic data and the stakeholder expectations of the performance audit, is the starting point for the desired shape of the curve.<sup>3</sup> Bryan Hassel, Co-Director of the Public Impact consulting firm, nicely captured the various forms of the student performance curve during a presentation at Harvard University's Program on Education Policy and Governance, as shown in Figures 2-4.<sup>4</sup>

### 3. Think and Prioritize Systemically

Once a district has set its ultimate aspirations for student performance, it must think precisely about how it should deploy its resources most effectively to achieve its aspirations. This exercise requires a holistic view of all the work of the district.

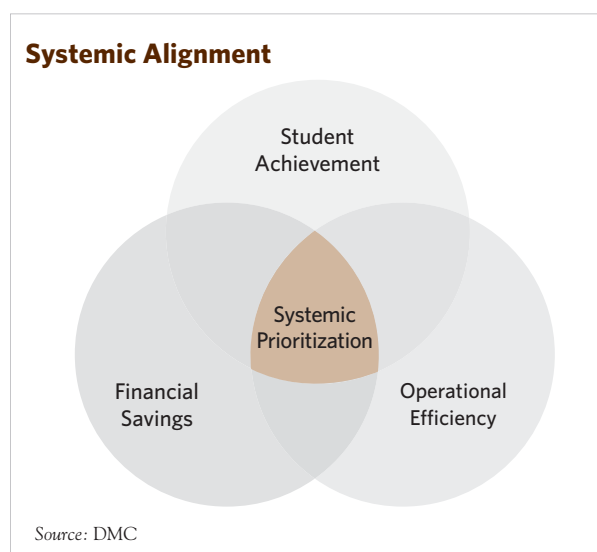
Too often, strategic planning fails to take such a systemic perspective. In many cases, strategic plans will affirm academic goals without charting how the non-academic side of the district can participate in attaining these goals. The opposite end of the spectrum—when strategic planning is confined to the business office and used only for budgeting and capital projections—is equally if not more problematic as it clouds the end goal of student achievement.

In contrast to these limited versions of strategic planning, a full strategic planning process recognizes the need for alignment among the spheres of student achievement, operational efficiency, and financial savings. The link between the academic departments and student achievement is obviously the most immediate, as better instruction will lead to higher performance. Though more circuitous, the connections between managerial capacity and student achievement are no less compelling. Financial savings and operational efficiency create more resources and time for instruction, which also lead eventually to student achievement (See Figure 5).

By taking a systemic view, a district can comprehensively define those systems and processes that will lead in the end to enhanced student achievement. Just as crucially, it can delineate those activities that will not deliver on what is most important.

In this period of dwindling revenue bases and increasing financial constraints, making tradeoffs to prioritize the key pursuits that drive the district's value

FIGURE 5



“The strategy cannot simply take the form of a roster of desires expressed by the various stakeholders... It falls to the district leadership to amalgamate the stakeholders' wishes into a doable set of strategic objectives...”

proposition is a required part of executing strategy. Tradeoffs sharpen the priorities that align with what Dr. Weast characterized as the district's “North Star.” It is only by clarifying what a district is *not* doing that the district can more crisply identify what it is doing to support student achievement. A systemic view helps in this process of making tradeoffs by guaranteeing that the district does not create false choices. Real tradeoffs entail such crucial strategic decisions as choosing to set a minimum benchmark for all students rather than establish different standards for different students. False tradeoffs assume that a district must stress academics, finance, or operations to the exclusion of the other two. In reality, the three spheres support each other. ▸

The need to prioritize and make tradeoffs is an ever-present part of the strategic planning process. Once a district has determined its priorities, it must continually revisit them to assure that every subsequent step links back to the district’s ultimate objectives by raising student achievement, reducing cost, increasing operational turnaround time, or enhancing the quality of stakeholder engagement.

Stage 2: Move To Execution

4. Choose SMART Goals

A district should always keep sight of its ultimate objectives, but the inherent broadness and ambition of these objectives can make them intimidating and seemingly unattainable. In order for these objectives to feel more manageable, the long-term aspirations have to be broken down into discrete components achievable in a shorter timeframe.

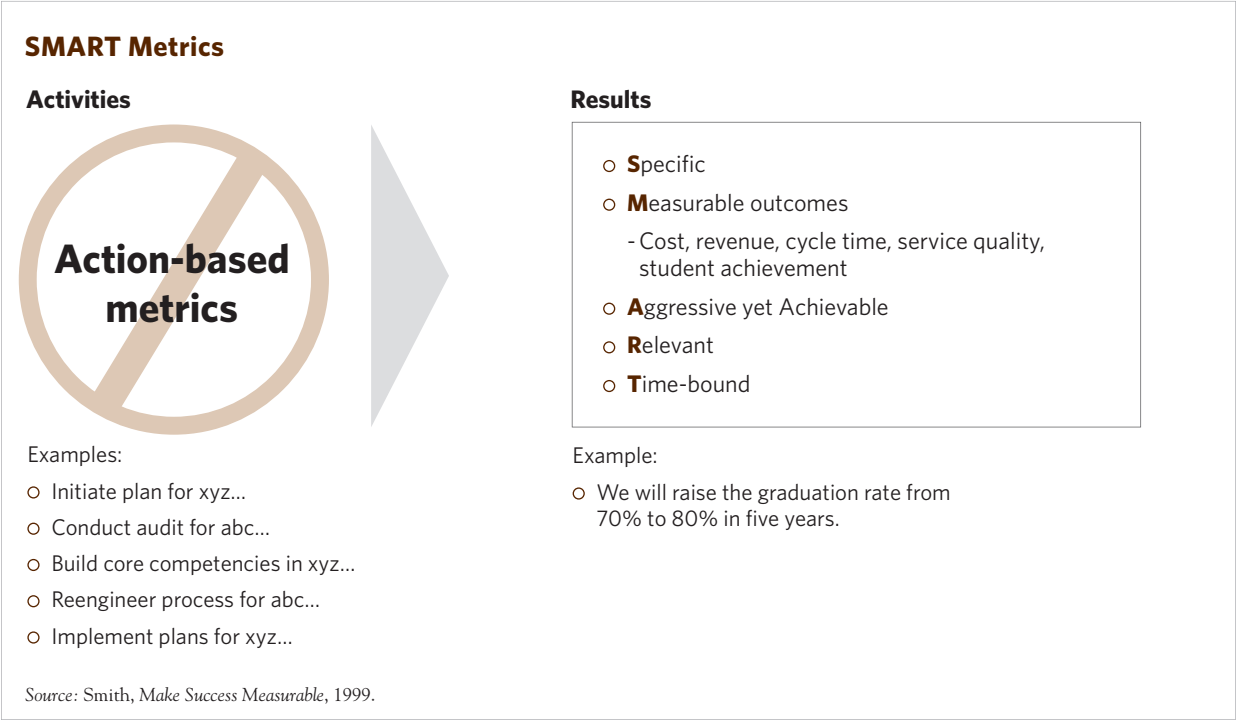
The key to tackling strategic objectives more practically is to think in terms of results, not activities. Most districts focus on activities. Their goals take the form of “initiating a plan,” “conducting an audit,” or “building core competencies.” The problem with

defining goals in this way is that activities lack a clear-cut distinction between success and failure. Employees can claim to have executed activities without being held accountable for their contribution to overall district performance. Losing the connection between their daily activities and the district’s overarching strategy, staff members are likely to take a mechanical approach to carrying out their responsibilities rather than feeling motivated to work toward a larger mission.

Framing goals as outcomes, rather than activities, restores the link between daily work and ultimate strategy. It makes employees accountable for, and motivated to help deliver on the district’s strategic agenda. Charting intermediate outcomes that link to broader district performance also serves as a vehicle for internal communications, disseminating the district’s strategy to employees, and embedding it in their day-to-day routine.

By defining intermediate outcomes that motivate performance, ensure accountability, and communicate purpose, a district creates a set of SMART goals (Figure 6). Many districts are already familiar with SMART goals, but rarely do they apply the goals in a

FIGURE 6





textbook fashion. First, as discussed above, a SMART goal is expressed through results, not activities.

Activities are nonetheless important for encouragement. Indeed, making progress in the process of activities can build momentum that will help to produce results. But the actual outcome of the goal should be *measurable* in terms of results. Second, each specific performance goal should tie to the overall district priorities. Even the most detailed goal should relate to the general agenda by impacting student achievement, financial savings, or operational efficiency. The goal should, in short, be *specific* yet *relevant*. It should also be *aggressive* yet *achievable*. The goal should differ from “business as usual.” It should instead demand change and require collaboration to realize performance. At the same time that the goal sets an ambitious target, it should be achievable using existing resources and authority.

Finally, the goal should be not only generally achievable, but achievable within a specific period of time. It should, in other words, be *time-bound*, at least to the period of the strategic plan.

The SMART system of setting goals reflects the belief that the best way to develop leaders is not to teach leadership and hope for the best, but, rather, to ask people to lead the accomplishment of real performance results.<sup>5</sup>

## 5. Use SMART Goals As A Management Tool

Rationalizing, sequencing, and prioritizing the SMART goals that staff members are asked to lead enable a district to populate a comprehensive tool for tracking and improving performance.

Integrating SMART goals into a coherent performance management system accomplishes two large-scale purposes. First, by relating SMART goals to overall objectives, a district can readily perceive the holistic nature of its strategy. Moreover, by instituting baseline and desired measures of performance, specifying the timing within which success should be reached, and naming the responsible parties, a district can hold all its employees accountable for their contribution to achieving strategic priorities. For an example of the flow of such a performance management system, see Figure 7.

The concept of tracking performance management underscores a useful distinction between leading and lagging indicators.

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- Lagging indicators measure the outcome of strategies. This is the kind of information that most districts currently track. They receive, for example, academic performance data from the previous year. For evaluation of the final results of district strategy, this data is extremely valuable. Yet, last year’s data has limited usefulness as a real-time diagnosis of what is succeeding versus what requires mid-course correction.
- Leading indicators track performance on the drivers of the lagging outcomes.<sup>6</sup> To serve as a leading indicator, a metric should, as the Annenberg Institute for School Reform at Brown University defined it, meet three criteria. First, it should be “timely and actionable,” relayed in sufficient time to impact ongoing work. Second, it should be “benchmarked,” so that the consumers of the information understand current performance relative to desired performance. Finally, it should be “powerful,” with insight to suggest improvement or demonstrate progress.<sup>7</sup>

Ideally, an accountability system should incorporate both leading and lagging indicators. As links to the overall strategic agenda, the SMART goals should have such a strong connection to ultimate outcomes that performance on the SMART goals yields predictive insight. In this way, a performance management tool >

FIGURE 7

Accountability Plan Structure: Linking Strategy to Measurable Performance Outcomes

Strategic Priorities	Key Components	Programs & Initiatives	Performance Metric	Performance Goal	Performance Baseline	Timing	Accountable/ Responsible
The district's ultimate aspirations as expressed in the strategic plan.	The systemic areas of student achievement, financial savings, and operational efficiency that, together, execute strategy.	The specific action plans that will achieve strategic priorities.	The SMART indicator of performance.	The intended level of future performance.	The current or historical level of performance.	When the goal will be achieved.	The roles designated; both primary and secondary accountability and responsibility.
ex. Raise the average level of student performance.	ex. Generate more resources and time for instruction by making business operations more efficient and effective.	ex. Provide swift responses to parent/ community requests.	ex. Implement a maximum 5-minute waiting time for anyone in the lobby/front office.	ex. 90% of all visitors to schools and Central Office will wait less than 5 minutes before they are taken care of.	ex. The baseline will be a survey given to stakeholders who interact with district staff.	ex. 6 months.	ex. Front office staff, principals, communications office.

Source: DMC

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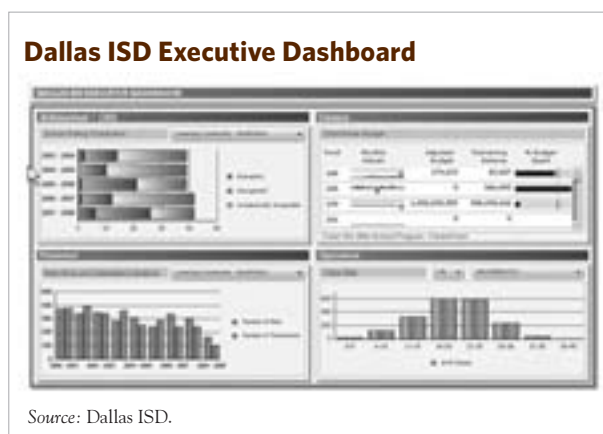
becomes not just a static reporting exercise, but a forward-looking dashboard that can drive behavioral and managerial change.

**6. Design A Dynamic Dashboard**

Designing a dashboard to provide real-time feedback is at the frontier of strategic thinking for school districts. An instructive example comes from the Dallas Independent School District (Figure 8). It created a series of dashboards to provide actionable information to principals, campus instructional leadership teams, and district-wide executives. The dashboards capture the predictive metrics most germane for their target audience. For example, the dashboard for the campus instructional leadership teams focuses on academic measures such as the attendance rate, the percentage of test-takers deemed deficient on the PSAT, and the number of students receiving scholarships to college. The executive dashboard, meanwhile, offers more systemic information. It depicts not only academic data such as school ratings, but also operational and financial



FIGURE 8



metrics including the percentage of the budget already spent and the rate of hires and terminations.<sup>8</sup>

The Chicago Public Schools is another district that has started to use a similarly comprehensive dashboard. Working in conjunction with the Consortium on Chicago School Research at the University of Chicago, the Chicago Public Schools identified five fundamentals that must align for comprehensive school success: instruction, instructional leadership, family and community involvement, professional capacity, and learning climate. It then classified measurements for these fundamentals. For example, gauging learning climate could involve students' perceptions of personal safety. Similarly, assessing instruction may rely on teachers' views of the quality of school programming, together with assessments of the changes in the difficulty of content taught at each grade level. The five fundamentals that the Chicago schools targeted for performance management have served as the basis for the district dashboard. Funded by the Michael and Susan Dell Foundation, the dashboard is going through several rounds of rollouts and will ultimately relay swift and actionable information to district administrators and teachers.<sup>9</sup>

A dashboard can translate into worthwhile action only if it provides predictive information about the drivers of strategic outcomes. This again highlights the importance of tracking SMART goals that provide feedback linking in the end to student achievement.

The financial component of the dashboard may, for instance, want to track a measure like the Medicare reimbursement rate, as the size and status of this reimbursement offers real-time information about whether

the district will receive the revenue it requires to fund programming. Other potential metrics on the financial side of the dashboard include regular reports of overtime and health insurance headcount, either of which could indicate possibly inefficient staffing practices.

Likewise, the operational component of the dashboard may consider customer service satisfaction, which links to student achievement both through enrollment and therefore revenue, and through environment and therefore motivation. Surveys of approval with front office service or response times to stakeholder requests could suggest direct and immediate reforms. District turnover is also an apt candidate for inclusion on the operational part of the dashboard. Teacher turnover is a discrete topic of managerial concern that connects to student achievement through the direct financial costs of replacement as well as through a decline in productivity and morale.

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On the academic side of the dashboard, much recent research has focused on the academic data that is most predictive of student achievement. Most studies affirm, in the words of an American Association of School Administrators' report, that “longitudinal analyses yield the most useful information.”<sup>10</sup> In more concrete terms, one particularly promising academic metric centers on the significance of reading by third grade. A report just published by the Anne E. Casey ▶

Foundation proclaimed that reading proficiently by the end of third grade “can be a make-or-break benchmark in a child’s educational development.”<sup>11</sup> The National Research Council concurred with the value of this reading benchmark: “Academic success, as defined by high school graduation, can be predicted with reasonable accuracy by knowing someone’s reading skill at the end of third grade.”<sup>12</sup> Other research into specifically predictive academic measures looks at the penetration of instructional technology. A University of Southern California study of the Philadelphia schools found a “significantly steeper learning trajectory,” relative to a control group, for students in schools where teachers had daily access to an instructional management system that tracked student needs and performance.<sup>13</sup> Technological penetration, like the third grade reading threshold, could easily be encapsulated into a dashboard statistic.

“As a learning organization, the district comes to understand when it is time to adjust or even transform its strategy.”

### Stage 3: Make Strategy Dynamic

Tracking the most predictive data not only helps to achieve strategic objectives, it also enables a district to maintain its strategic focus as external circumstances change.

The power of external circumstances starkly confronted school districts in the form of the recent financial crisis. Outside exigencies such as fiscal distress often destroy strategic intent. Many districts approach budget cuts with a one-size-fits-all approach of slashing a certain percentage from every department. This approach’s implication of treating all things equally directly contradicts strategy’s notion of prioritizing key activities and making tradeoffs accordingly. Strategic initiatives, as new and uncertain ventures, may in fact be the first to yield to budget cuts.

### 7. Budget Strategically

Economic recession should not result in sacrificing strategy. It can actually pose an opportunity for a district to preserve and even enhance its strategic priorities. Turning crisis into opportunity calls for budgeting strategically. In contrast to a blanket approach of cutting or increasing funding uniformly across departments, budgeting strategically means ranking key priorities and preserving their funding across all possible revenue situations.

To budget strategically, a district must first use a process of scenario planning to model the set of possible revenue scenarios that it faces (for more information on the scenario planning process, see *The District Management Journal*, Volume 2, Summer 2009, “How to be Proactive in the Face of Uncertainty: Scenario Planning for School Districts” by John J-H Kim and Hugh Courtney).<sup>14</sup> Then, imagining each revenue scenario as reality, the district can go line-by-line through their wishlist of programs and design a budget that matches the total funding for the given scenario. The most strategically vital programs would appear in all of the budgets across the scenarios. But the funding for other items would depend on their prioritization and the gravity of the fiscal challenge.

The prioritization of programs should result from not only the preferences of district leadership, but also the input of the broader community. By informing employees, parents, and the public about the budget process and providing opportunities for them to make suggestions, the district can solicit feedback as to how community members prioritize programs and which services they would be willing to see cut in the unfavorable budget scenarios.

### 8. Build Community Support for Strategy

The community outreach that started in the budgeting process should go beyond this step. The creation of SMART goals communicates overall strategic objectives to employees, motivates them to work toward these objectives, and holds them responsible for their contribution. A similar sequence of assuring strategic buy-in should be designed for external stakeholders.

Gaining the support of external stakeholders for the district’s strategy follows a three-step process:

1. Building awareness.
2. Promoting understanding.
3. Assuring buy-in.

## 9. Become A Learning Organization

Communication to internal and external stakeholders accelerates strategic execution by embedding a sense of ownership for the strategy throughout the district. Stakeholder support also generates a learning curve that leads to organizational improvement. As stakeholders play their part in achieving strategic objectives, they gain insight. Staff members may learn, for example, that the original process they envisioned is not the most efficient way of reaching their SMART goal. Parents may recognize new ways of partnering with the district. Motivated to contribute toward important strategic objectives, stakeholders can recognize new possibilities, act more proactively, and break out of old routines. Codifying these insights and looping them into new practices through a feedback loop, a district becomes a learning organization.

## 10. Revise and Revisit Strategy

As a learning organization, the district comes to understand when it is time to adjust or even transform its strategy. Striving for continuous improvement, the district should integrate the insights that its members and teams gleaned in Step 9 above, and use them as the backdrop that frames strategic review. One of the most effective ways to approach strategic review is to highlight strategies that are fundamentally distinct from the one the district is currently pursuing. By asking what the district could do differently, the leadership team can build out alternative strategies. Then, having illuminated the options, the team can use the lessons from the district's systemic learning to support or refute each strategic option. Finally, based on the district's aspirations, capabilities, and insights, the team can select the best strategy going forward.<sup>15</sup>

## Conclusion

Going from creating to executing strategy involves a process of auditing district performance, selecting a few ultimate aspirations on the curve of student achievement, and translating these strategic objectives throughout the organization and across time through SMART goals, an accountability system, and strategic budgeting. But, this is not the end of the strategic planning process, for a strategy is not a permanent construct. Strategy arises from considerations of how

best to serve stakeholders in light of available resources, competitive threats, and the external environment.

A change in any of these forces should therefore occasion a review of how strategy may have to change to enable the organization to continue to perform at a high level.<sup>16</sup> □

<sup>1</sup> Michael E. Porter, "What Is Strategy?," *Harvard Business Review*, November-December 1996, p. 61-70.

<sup>2</sup> Stacey M. Childress, Denis P. Doyle, and David Thomas, "Challenging the Status Quo: An Excerpt from *Leading for Equity: The Pursuit of Excellence in Montgomery County Public Schools*," *The District Management Journal*, Volume 3, Winter 2010, p. 12-23. Please refer to this prior issue of *The District Management Journal* for an extensive article about the strategic work of the Montgomery County Public Schools.

<sup>3</sup> Bryan C. Hassel and Emily Ayscue Hassel, "Working the Curve: Dramatically Shifting the Human Performance Curve in Public Education," *Public Impact*, presented at PEPG Colloquia Series, Harvard University, 5 March 2008.

<sup>4</sup> Ibid.

<sup>5</sup> Douglas K. Smith and Charles Baum, "Delivering Results, Developing Leaders: A Performance-Driven Approach to Building Leadership Capacity," *The District Management Journal*, Volume 1, Spring 2009, p. 12-19. For more information on SMART goals, please refer to this previous issue of *The District Management Journal*.

<sup>6</sup> Robert S. Kaplan and David P. Norton, "Linking the Balanced Scorecard to Strategy," *California Management Review*, Volume 39, Number 1, Fall 1996, p. 55.

<sup>7</sup> Ellen Foley, Jacob Mishook, Joanne Thompson, Michael Kubiak, Jonathan Supovitz, and Mary Kaye Rhude-Faust, *Beyond Test Scores: Leading Indicators for Education*, Annenberg Institute for School Reform at Brown University, p. 3.

<sup>8</sup> Dashboards section, Dallas Independent School District.

<sup>9</sup> Anthony S. Bryk, Penny Bender Sebring, Elaine Allensworth, Stuart Luppescu, and John Q. Easton, *Organizing Schools for Improvement: Lessons from Chicago* (Chicago: The University of Chicago Press, 2010), p. vii-viii, 82; Michael & Susan Dell Foundation, "Chicago Public School District Driving Performance Management from the Dashboard," Chicago Public Schools, "School Improvement Planning for Advancing Academic Achievement."

<sup>10</sup> Phil Streifer, University of Connecticut, quoted in American Association of School Administrators, *Using Data to Improve Schools: What's Working*, p. 25.

<sup>11</sup> Anne E. Casey Foundation, *Early Warning! Why Reading by the End of Third Grade Matters*, 2010, p. 9.

<sup>12</sup> Ibid.

<sup>13</sup> Dr. Richard Brown and Cheryl Lemke, *Informed Decision Making and Higher Academic Achievement*, Metiri Group and Pennsylvania Department of Education, 2007.

<sup>14</sup> John J-H Kim and Hugh Courtney, "How to be Proactive in the Face of Uncertainty: Scenario Planning for School Districts," *The District Management Journal*, Volume 2, Summer 2009, p. 14-21.

<sup>15</sup> Jan W. Rivkin, *An Options-led Approach to Making Strategic Choices*, Harvard Business School case note (Boston, MA: Harvard Business School Publishing, 2002).

<sup>16</sup> Ibid.



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