

## Appendix B

### Introduction to the “Big 3” Framework

Education Resource Strategies’ ongoing study of the role of resources in student learning shows that high-performing schools use their resources of people, time, and money in very consistent ways (Miles & Frank, 2008). Although their specific approaches vary to reflect differences in context, instructional approach, or staff, each school organizes its resources around three Guiding Resource Strategies. High-performing schools organize to:

1. Invest to continuously improve teaching quality through hiring, professional development, job structure, and collaborative planning time.
2. Use student time strategically, linking it to student learning needs.
3. Create individual attention and personal learning environments.

#### Teaching quality

Research supports the importance of teaching quality, noting that it influences all other reform efforts in schools and has the greatest effect on student learning (Rice, 2002a, 2002b; Halbach et al., 2001; Greenwald, Hedges, & Laine, 1996). In high-performing schools, leaders factor teaching quality into every decision they make: hiring, staff assignment, teacher and student scheduling, and budget resource allocation. Recognizing the unparalleled impact it has on school success, **high-performing schools strategically invest in teaching quality** in several key ways:

- **Hiring and organizing staff to fit school needs in terms of expertise, philosophy, and schedule.** Leaders of high-performing schools hire strategically to ensure new staff brings the expertise, philosophy, and work schedule that best supports the schools’ needs. They go to extraordinary lengths to attract the highest-quality pool of job candidates, and they create detailed job descriptions that include not only the requisite knowledge and skills for the classroom but also the expectations for roles outside the classroom, including committee participation, mentoring, or tutoring.

High-performing schools use several components in the interviewing process, including interviews with multiple stakeholders and demonstration lessons from those candidates they are most interested in hiring. School leaders and teacher teams devote significant energy and time to discussing potential candidates, often soliciting student input into the process, to ensure the candidate is the best fit with the schools’ culture and instructional vision.

- **Integrating significant resources for well-designed professional development that provides expert support to implement the schools' instructional models.** Continuously improving schools view professional development as a way of life, and they embed it into the school culture and teacher schedules. In these schools, professional development is relevant to the specific curriculum and instructional materials that teachers use each day (Cohen & Hill, 2000; Holland, 2005) and to the specific learning needs their students demonstrate. High-performing schools strategically leverage experts both on-staff and from outside the school to provide the support that addresses particular teacher needs and affects student learning.
- **Designing teacher teams and schedules to include blocks of collaborative planning time effectively used to improve classroom practice.** Teachers need at least three hours of collaborative planning time each week to focus on improving classroom practice (Bodilly, 1998; Raywid, 1993; Swaim & Swaim, 1999). High-performing schools use this time for teachers to work on lesson plans together, dig through assessment data to understand what teaching strategies worked and did not, and discuss how to help individual students. Recognizing the large investment of this time, school leaders ensure it is well used by specifying clear expectations and standards and providing teachers rubrics or protocols as tools.
- **Enacting systems that promote individual teacher growth through induction, leadership opportunities, professional development planning, evaluation, and compensation.** High-performing schools recognize that teachers need ongoing opportunities and support as they move through different stages of their careers. They systematically develop teacher leaders who can share their expertise with the entire school, and they often use individual professional development plans for each teacher to ensure they get the support they need for ongoing improvement.

These schools view evaluation as part of the capacity building process rather than as paperwork that must be filed, and they find ways to reward strong performance and higher contribution (Miles & Frank, 2008). Some high-performing schools connect compensation to a teacher's development, level of responsibilities, and effectiveness in improving student achievement.

### Strategic use of time

Time affects all activities within a school — teaching, learning, collaborating, conducting assessments, and reviewing student work — yet most high school leaders do not feel that they have enough of this critical resource. Some want more time to work with students in laboratories, provide more support in literacy and math, or explore subjects through field studies, while others want to spend time addressing students' social needs through character education and community involvement activities.

Research supports the importance of student time, noting that it is not simply the quantity, but the quality, of time that affects student learning. Elena Silva's recent review of the literature on this subject notes that "the addition of high-quality teaching time is of particular benefit to certain groups of students, such as low-income students and others who have little opportunity for learning outside of school" (2007).

Education Resource Strategies' research of school-level resource use suggests that **high-performing schools use student time strategically, linking it to student learning needs by:**

- **Purposefully aligning the schools' schedules with their instructional models and student needs.** Leaders of high-performing schools examine the total time available and deliberately create a schedule that reflects their schools' instructional vision and strategies for meeting student needs. These schedules serve as a key tool for student success, and they support the schools' curricular, pedagogical, and professional development approaches. For example, a school focused on science and technology may build a schedule that includes longer blocks of time for laboratory work. Schools with a high percentage of underperforming students may add more instructional time in subjects where students are struggling.
- **Maximizing time on academic subjects, including longer blocks of uninterrupted time.** Our research shows that many students in urban secondary schools spend less than half of their time in core academic classes.\* However, high-performing schools purposefully allocate significant time to core academics as it relates to student learning needs, and they build longer blocks of time to support learning in these subjects.

These schools use various strategies to achieve this goal, including varying the lengths of classes for different subjects, staggering start times for different cohorts of students (and teachers), adopting block schedules, rotating bell schedules across multiple days and weeks, and offering noncore activities outside the school day.

- **Varying individual student time when necessary to ensure all students meet rigorous standards.** Silva continues, "Research shows that extending the right kind of time to the students who need it most can increase student learning and effectively close the achievement gaps between poor and minority students and their more affluent peers" (2007). By continuously measuring student learning, teachers at high-performing schools are able to identify specific student needs and vary time and program specifics to support each student successfully. Depending on student needs and school resources, schools provide this extra time in different ways, including tutoring, small group instruction, and customization of student schedules.

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\* ERS defines core academic classes as English, math, social studies, science, and foreign language.

## Individual attention

Parents, teachers, legislatures, and the general public intuitively grasp the importance of individual attention. The most popular method of providing individual attention to students is to reduce class size — a costly reform that often does not achieve the intended effect when not strategically structured. High-performing schools recognize that no one program or policy will be sufficient, but rather having students be known well hinges on the interaction of many practices, programs, and choices.

High-performing schools **create individual attention and personal learning environments for *all* students by:**

- **Assessing student learning on an ongoing basis and adjusting instruction and support accordingly.** Teachers gather a variety of information about their students: They conduct exams and quizzes; they grade homework and writing assignments; they ask questions, listen to class discussions, and observe student interactions. Whether it is a formal, standardized measure or an informal check-in, each of these data points represents a formative assessment of students' abilities and deficits related to a specific unit or curriculum. Teachers at high-performing schools conduct both formal and informal formative assessments, and most important, they use the data to inform their instruction. They provide students targeted support based on a demonstrated need.
- **Creating smaller group sizes and reduced teacher loads for targeted purposes.** Although parents and teachers routinely focus on reducing class size as a way to improve student performance, the research tells us that reducing class sizes for all students in all subjects does not guarantee improved student achievement (Mosteller, 1995; Hanushek, 1997). Instead, high-performing schools create smaller group sizes or reduced teacher loads in high-need subjects and grades (e.g., a teacher load of 55 students for a ninth grade math teacher, or a small group of 15 students for literacy).
- **Organizing structures that foster personal relationships between students and teachers.** High-performing schools use three categories of structures to create deeper relationships between students and teachers: advocates and advisories, in-school community structures, and looping. These structures organize student and teacher time so they have small group meeting times (advisory), weekly school meetings (community), or structured relationships that extend across multiple years (looping).