

## Developing Effective Human Capital Systems for Education

This policy brief addresses the role of the state in leveraging significant improvements in our educator development systems in order to achieve important educational outcomes. It begins with a look at reform efforts that have largely focused on externally driven solutions to increasing the overall level of learning among students—in the form research-based “blueprints” for implementing curriculum and instructional practices at the school level, as well as through the standards-based accountability movement. It particularly focuses on comprehensive school reform and how much this commonly used strategy has—and has not—been successful at improving the quality of teaching and student achievement, and how this can inform our efforts to build human capital in education.

The brief concludes with a call for states to focus attention on the central role of human capital and the priority of building the expert performance of teachers and school leaders in creating quality learning environments. Included is a series of questions state leaders can ask as they move forward in this area that is truly the linchpin of any effort to improve student outcomes.

### History of Efforts to Scale School Improvement Approaches

As we move into the second decade of the 21st century, the urgency to transform public education continues to press on state policy leaders. They are called upon to respond to dramatic social, economic, and technological changes that have caused deep concerns as to whether states can provide young people with a world-class education. Moreover, the press to ensure equitable opportunities for all students demands solutions not only to raise the level of preparedness for all students, but to also address the huge achievement gaps that exist across all levels of the system.

While we have learned a great deal about the intransigent problems of low-performing schools under the No Child Left Behind Act, this and other school reform initiatives have yielded only pockets of sustainable improvements in student achievement, particularly for low-income and minority students. Yet, the movement to scale “research-based” school improvement designs,

largely crafted and disseminated externally by researchers and technical assistance providers, has existed in the United States for the last 50 years. For the most part, an RDDU (research, development, dissemination, and utilization) paradigm has operated since the federal government began building an infrastructure for research and development in the field of education, beginning in the 1950s and expanded throughout the 1960s and '70s.<sup>1</sup>

The predominant example of design-based approaches to school improvement during the 1990s—comprehensive school reform (CSR)—was launched with the explicit goal of fostering a new generation of American schools. The New American Schools (formerly the New American Schools Development Corporation) funded the development of new designs for schooling that integrated research-based practices into a coherent set of effective approaches to teaching and learning.<sup>2</sup> Studies were conducted to determine whether technical, design-based approaches to school improvement could be replicated reliably in multiple settings. But while the template spread widely—with broad adoption in roughly 10 percent of all public schools in the United States by the end of the decade, overall CSR program evaluations found only weak effects on student achievement.<sup>3</sup>

Even though there were small effects overall, these analyses uncovered a great deal of variability from program to program, indicating that some worked far more effectively than others (effect sizes ranged from  $-.13$  to  $.92$  in comparison group studies). The differences across programs prompted researchers to examine in depth the program design features that explained the program outcomes. In one such study by the Consortium for Policy Research in Education (CPRE) that examined three different whole school reform models, education analysts found a great deal of variability both in terms of what actually goes on in schools and classrooms and how students learn as a result. CPRE researchers looked at the particular program features that result in different program outcomes and found that the differential impacts of instructional improvement designs point to two key dimensions that must be considered when scaling educational reforms: the

# CPRE's Study of Comprehensive School Reform Programs

The Consortium for Policy Research in Education (CPRE) took a look at the design of three of the most widely disseminated comprehensive school reform (CSR) programs to study their impact on instructional improvement in high-poverty settings.<sup>5</sup> CPRE researchers wanted to isolate differences across three well-known CSR programs operating in more than 2,500 schools at the time of the study—Accelerated Schools Project (ASP), America's Choice (AC), and Success for All (SFA). The purpose of the study was to distill why design-based improvement initiatives had variable effects. Were varying results on student achievement due to differences in the intended instructional practices across programs and/or due to differences in organizational changes incorporated into the programs to ensure that the designs were faithfully implemented?

The study conducted between 1999 and 2004 looked at each of the three models to shed light on the specific mechanisms through which CSR programs influence literacy achievement—the major focus of the three designs. The descriptions below review: a) how the different CSR models are organized to change classroom instruction, b) whether the CSR programs produced targeted changes in literacy instruction; and c) whether once implemented the CSR programs succeeded in improving student achievement at the schools under study. Overall, the study sought to shed light on the specific mechanisms through which CSR influences student achievement using a sample of 115 elementary schools.

## Portraits of CSR Programs

**Accelerated Schools Project (ASP)** promoted a commitment by school staff to a vision of “powerful learning.” Rather than specifying curriculum objectives or teaching strategies, teachers were asked to “discover” approaches to producing powerful learning and to make innovations that would fit their classrooms. While this level of autonomy promoted high levels of motivation for improvement among faculty, the design did not foster implementation of distinctive forms of literacy instruction. As a result, ASP schools and comparison schools did not differ in literacy instruction nor in the patterns of student achievement on measures of reading and writing using the Terra Nova Achievement Test.

**America's Choice (AC)** fostered a well-specified, standards-based curriculum in the area of writing instruction anchored in a professional consensus regarding curricular content and methods. AC relied on school leaders working closely with teachers to help them develop the knowledge and competencies to use literature-based instructional practices effectively. Rowan and Miller found that AC schools were higher than three other groups of schools (ASP, SFA, and comparison schools) on three dimensions of instruc-

tional leadership—setting a vision for teaching and learning, staff development, and advising on matters of instruction.<sup>6</sup> As a result of defining instructional and curricular elements, AC schools produced unique instructional practices that emphasized students' production of extended text—and which resulted in accelerated gains in literacy achievement at the upper elementary grades.

**Success for All (SFA)** used “procedural controls” on the implementation of highly specified instructional routines for enacting a skills-based reading program. AC teachers received scripted lessons to guide teaching activities through a 90-minute reading period along with program-provided curricular materials. The design yielded distinct usage of instructional practices focused on direct/explicit teaching, checks on literal comprehension by eliciting brief oral or written responses, and use of cooperative grouping arrangements. The results fostered gains in students' reading achievement in the early elementary grades.

## Findings and Conclusions

- Design-based school improvement initiatives tend to make a difference in instruction and student achievement in schools. This occurs not when local educators are left to invent instructional and organizational solutions to improving teaching and learning, but rather when teachers learn how to use a well-specified set of instructional practices through extensive supports.
- School improvement must consider directly measuring instructional practice when trying to explain student achievement outcomes. There is a need to closely examine how schools organize to make instructional change, and also to examine the explicit kinds of instructional changes being made in schools.
- When teachers are left to their own devices, the patterns of instruction did not significantly change. The lack of clear instructional design or guidance for teachers coupled with weak instructional leadership tended to produce quite ordinary instruction that did not differ from the kind of instruction implemented in comparison schools.
- Effective school improvement designs relied on instructional leadership to mediate changes in instructional practice. The findings suggest that the ways schools are organized to support instructional change matters greatly. They impact not only the instructional leadership that emerges, but also the nature and extent of instructional practices that are used. As a result, differences emerge in what students learn and in the patterns of reading achievement as measured on standardized assessments.

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Researchers who study school improvement have not been surprised by the poor results of many CSR efforts that do not include a human capital strategy around changing classroom instructional practices in explicit ways. In 2006, Porter and Snipes examined the implementation of another set of reform strategies targeted at district and school leadership—coaching, evidence-based decision-making at all levels, and networks and collaboration—and found that the intensity of the reforms tended to wane the closer they got to the classroom.<sup>4</sup> They found no substantial association between the focal strategy and student achievement. The “theory of action” behind the reforms addressed the establishment of goals for improving student achievement and reducing achievement gaps, but failed to translate these goals into specific instructional practices in the classroom. (See textbox on previous page.)

In summary, scaling up education reforms continues to be one of the major challenges facing state education systems in the United States. Researchers conclude that education policies built around high academic standards, assessments, and stringent accountability are necessary, but not sufficient conditions for improving instruction and student achievement in schools.<sup>7</sup> For the most part, policy reforms have neglected the central role of human capital and the priority of building the expert performance of teachers and school leaders to scale effective organizational and classroom instructional practices.<sup>8</sup> As Richard Elmore, contends: “The premise that educators know what to do and all they need are the correct incentives to do it is essentially wrong. There is simply no way to solve the problem of large-scale improvement in educational performance without connecting policy and practice more directly and powerfully. It is this connection that we have been avoiding in a variety of ways, through a variety of pretexts, throughout the 20th century, but especially since *A Nation at Risk*. Schools simply cannot do what they are being asked to do without more explicit and powerful guidance and support for instructional practice and without major changes in investments in knowledge and skill for educational practitioners.”<sup>9</sup>

### Developing a Strategic Human Capital Initiative: Why Now?

Education analysts have begun to look more closely at how to systematically make large-scale improvements in teacher and school leader practices that positively affect student learning. It has become clear that heavy investments in state reforms will not yield the level of buy-in, ownership, and results needed at the school level unless policy leaders address the capacity of teachers and leaders to implement instructional improvements. The give and take of implementing changes in instructional practice requires a shift away from forcing a constrained set of practices

and accountability mechanisms on districts and schools and toward changing the system to support good teaching practices and good teachers.<sup>10</sup>

States, in particular, must rethink how educators are recruited, prepared, supported, and evaluated.\* Myriad studies confirm that classroom instruction and school leadership are the two most powerful, school-related factors that contribute to what students learn at school. The likelihood of creating and sustaining high-quality learning environments at scale is remote without effective teachers or without a skilled and committed leader to help shape teaching and learning.<sup>12</sup> Moreover, research and practice confirm that improving the human capital element of the education system will do far more for students who are underserved and prone to fail than changing other inputs available to state policymakers.<sup>13</sup>

What’s essential, then, is for states and districts to craft policies and initiatives that are specifically designed to give educators the knowledge and competencies they need to continuously improve their core practices.<sup>14</sup> This is an extremely complex and iterative process that requires policy leaders to work with broad coalitions to 1) understand more deeply what are the essential practices for teachers and school leaders and 2) design coherent performance-based systems that will build educator capacity in accordance with those practices.

States must grapple with central questions such as:

- What are the performance indicators and measures that can serve to reliably calibrate the expected level of competencies for teachers and leaders throughout their careers?
- How are standards of practice defined in ways that strengthen the connection between improvements in teaching and learning and building systems to provide high-quality education?
- What are the policy levers that can serve to foster career-long, continuous improvement in educator effectiveness?
- How should elements of the educator development systems be redesigned, added, or eliminated to increase the efficacy of teachers and school leaders in creating powerful learner-centered environments?
- How should states design data systems, develop metrics on educators’ performance and competency, and use data to identify programs that cost-effectively produce well-trained teachers and principals?

States will need to engage in honest and open discussions about the level of commitment needed to join together re-

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\* Indeed, the state’s role in creating systems to develop highly effective teachers and principals forms the centerpiece of new federal guidelines for receiving federal stimulus funds under the Race to the Top initiative. Making the development of systems to evaluate the performance of teachers and leaders a priority is designed to connect policy and practice more directly and powerfully.<sup>11</sup>



forms focused on school improvement with concerns about the need for effective teachers and school leaders. This work will require fostering learner-centered policy development and decisionmaking; expanding expertise and capacity through the strategic use of networks; using continuous evaluation to scale up what works; and building a human capital system that provides all students with high-quality instruction.

## Final Thoughts

While a great deal has been learned about school improvement and system building over decades of education reform, we continue to lack consistent approaches to scaling effective practice. Given the unprecedented levels of funding poised to reconfigure schooling through the federal Race to the Top grants, policy leaders must avoid the unwelcome result where reform and innovation once again fail to bring discernible changes in the culture of instructional practice.

In order to fundamentally transform education, attention must be given to explicitly articulating the nature of leadership and teaching needed to create the conditions for powerful learning environments. Concepts regarding the norms for student work and the organizational and pedagogical attributes that elicit consistently high levels of student engagement and performance cannot be assumed to arise of their own accord in response to external demands for accountability. States will need to develop coherent theories of action to connect leadership practice to improving the knowledge and skill of teachers, the nature and extent of schoolwide instructional practices, and the level of active learning by students.

The next challenge for state and district policymakers will be to identify the policy options and levers needed to build a comprehensive system for the development of human capital—a system that is grounded in a visible, shared conception of schooling and learning. It will be incumbent upon states to ensure reciprocal accountability on the part of all actors throughout the system: at each level, the roles and responsibilities of key players must contribute to enhancing the capacity of others. States will need to be aggressive in connecting universities to PK–12 schooling, creating quality controls for preparation and professional development programs, identifying metrics to advance educator development, and creating systems to identify what’s working, what to expand, and what to eliminate.

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## Endnotes

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