

FAR AND WIDE

Developing and Disseminating Research-Based Programs

BY ROBERT SLAVIN

EVERY METROPOLITAN area has at least one widely known school that has been able to demonstrate, year after year, extraordinary student performance. When these schools serve poor and minority children, they are often held up as examples of what all schools could achieve with at-risk children.

On further examination, these exemplary schools sometimes turn out to be less than extraordinary because they operate under conditions that other schools cannot emulate. Some are magnet schools that can select their students (and reject those who are difficult to teach). Some have high levels of funding or other special circumstances. Yet it is not unusual to find schools with none of these special circumstances that are nevertheless producing outstanding student success.

Exemplary schools that operate without the extras play an important role in broader school reform because they demonstrate that all children can learn. When the late Ron Edmonds made his famous claim that "wherever and whenever we choose [we can] successfully teach all children..."¹ he was saying that the existence of even a handful of exemplary schools serving poor and minority children demonstrates beyond any doubt that the fault is in our education system, not in our children.

The problem, however, with exemplary schools is that

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we have not known how to replicate them. So they have provided visions of what *can* be done but not models of *how* to achieve excellence in the thousands of schools that need improvement. Often, an exemplary school will be just down the street from a school serving the same neighborhood that is producing results that are far from exemplary. Even the exemplary schools themselves don't remain consistent over time; changes in principals, key staff, district policies, funding, or even just the passage of time may undermine a school that once gave poor, minority children an education equal to the best.

What practices create a successful school? And even harder, if we isolate these practices, how can we make sure they become commonplace? Though replicability is not the same thing as excellence, the question of how to disseminate existing programs, in particular, has consumed researchers and reformers for decades. Yet finally, a confluence of developments in research and in policy has produced a breakthrough that allows us to replicate programs in thousands of schools.

Replicable Reform Designs

What has happened is that a number of organizations, mostly universities, have developed, evaluated, and learned how to disseminate programs capable of translating best practices into replicable individual programs and replicable schoolwide reform designs². These programs vary widely in their particulars, but all are built around the idea that externally developed programs, with appropriate

adaptations to local circumstances, can be disseminated to hundreds or thousands of schools. Our own program, Success for All, is in more than 1,100 schools in forty-four states (and five foreign countries). Henry Levin's Accelerated Schools model is also in more than a thousand schools. James Comer's School Development program is in about six hundred, as is a program called High Schools That Work. Schoolwide programs based on Direct Instruction reading and mathematics programs are used in more than a hundred schools. Core Knowledge is rapidly expanding in hundreds of schools. A set of eight comprehensive programs funded by the nonprofit New American Schools Development Corporation (NASDC) is used in several hundred schools. In addition, there are dozens of replicable programs in every subject and for every grade level, as well as replicable programs for dropout prevention, tutoring, and so on.

Some of these programs are carefully structured, with specific student materials, teachers' manuals, training procedures, and other elements, while others provide powerful ideas and connections with other innovative schools but expect teachers and other educators to create all the classroom strategies and materials for themselves. Some are extensively researched and have undergone independent evaluations, while others can only point to a few schools (perhaps out of many) that have made substantial gains in a given year, and some lack even this type of evidence. Yet what all of these programs share is that they were designed from the outset to be replicated.

One of the most important factors in the successful replication of a reform design is the process by which a school adopts one of these designs. The selection must be based on a voluntary choice made by the professionals in the school. Our own programs require an informed vote by secret ballot and a supermajority of at least 80 percent of a school's teachers, and we do everything in our power to see that the vote is free and uncoerced. We try to make sure that teachers have visited other Success for All schools, had access to written materials and videotapes, and had opportunities to question program representatives before they make this important decision. Most other programs use similar procedures.

This buy-in process ensures that the overwhelming majority of educators who will actually carry out the reform had a decisive role in selecting it and are therefore committed to high-quality, thoughtful implementation. Admittedly, given the pressures on schools to do something about student achievement *right away*, it can be difficult to make sure that teachers have the chance for an uncoerced choice. It is nonetheless essential. In our own research, we have found that poor implementation can usually be traced to a hasty, poorly informed or pressured choice that failed to secure the commitment of the school staff to put their hearts and minds behind making the program work.³

However, this is not to underplay the importance of the implementation process in replicating a reform design. A Success for All implementation involves training teachers so that they fully understand both the ideas behind the design and the specific procedures and practices they will be following and adapting for use in the classroom. It involves coaching and being coached and constant assess-

ment of students to see if they are moving ahead or falling behind. And it involves learning how to use parents as an important resource. The network of Success for All schools, a continuing resource for all participating schools, can play an especially important role when a school is implementing the program. The network allows those involved to share ideas and strategies with people in other schools and work through problems they are having. Ultimately, the network also helps build a common language and norms of professionalism and collaboration.

Discrediting the Rand 'Change Agent' Study

The existence and widespread dissemination of comprehensive programs have discredited once and for all the influential Rand "change agent" study of the 1970s.⁴ The change agent study concluded that lasting and effective school reform could only take place if the participants themselves designed and carried out their own innovations. Based in part on this study, school reformers often came to believe that even well-developed, well-designed school change models could never work, could never be maintained, and could never be replicated. People in each school had to try to reinvent the wheel—and hope they were not proceeding on a faulty premise.

The belief that reform has to take place school by school and cannot be promoted by external agencies led to despair of ever achieving widespread reform, and this was a major reason for the embrace at the policy level of "systemic" reforms. Systemic reforms concentrated instead on district and statewide and even national reforms such as changes in assessment, accountability, standards, governance, the introduction of charters or privatization or other innovations that did not directly change classroom practice. The theory was that only reforms like these were likely to make a difference on a substantial scale; and systemic reforms did bring about some important changes. Standards and accountability, for example, have made us look anew at what students can be expected to achieve and how we can measure their achievement. And they have been essential in motivating the search for effective programs and giving schools feedback on the results of their new programs.

However, recent research confirms what common sense also tells us. Systemic changes mandated from Washington or from state capitals do not have a sufficiently powerful effect on student achievement unless they are coupled with reforms that directly target classroom practices. In addition to knowing what their students should be learning—and whether they are meeting external standards—teachers also need effective, well-tested, and replicable classroom techniques to help them guide their students' learning. Replicable reform models that are selected by educators and provide materials and support for teachers who put the programs into practice can be used in thousands of schools, and they offer a promising antidote to top-down policies.

The advantages of having well-worked-out programs to adopt or adapt, rather than having every teacher or school

try to reinvent the wheel, are many. First, a program developer has far more time and resources to try out many draft prototypes, get feedback from many teachers, see the effects on many different types of children, and continually revise the program until it is practical and effective. In addition to sound materials, program developers can work out assessments and training procedures. A widely used program is also likely to have videotapes demonstrating effective practices and a network of implementing schools that gives teachers opportunities to share ideas, adaptations, supplementary materials, and so on. Program developers have the time and resources to follow developments in research, adapt to changes in standards, and keep up with the latest trends in curriculum. They are able to evaluate their program (though, unfortunately, not all do so). This is not to say that teachers cannot create their own effective innovations—far from it. Yet the great majority of teachers prefer to innovate beginning from a solid base of materials and methods, rather than starting from scratch. Given the enormous job teachers have to do just to teach every day, it is unrealistic and unwise to expect them to invent everything they use.

The rationale behind the Rand change agent study, still believed by many educators and academics, is that teachers will not implement an externally developed program because they themselves were not involved in creating it. This is half true; if external reforms are forced on teachers, they may, in fact, resist or engage in only token or surface compliance. However, if teachers have taken part in identifying a program that is appropriate and practical for their school, and if they have been involved in modifying the program to fit their needs, they are likely to feel ownership and commitment. It is the buy-in process used with most current reform models that makes the change agent study wrong. It is not necessary for teachers to invent a program in order for them to be fully committed to making it a success; it is necessary that they have unfettered choice.

The insistence that each teacher develop his or her own teaching tools, techniques, and even curriculum materials is unique to the education profession. What physician would ignore the research, pass up the array of available medications, and make up his or her own concoctions? What farmer would try to develop new seeds or better tractors just for use on his or her own farm? In every successful part of our economy, professionals select and intelligently apply well-developed tools rather than inventing new ones exclusively for their own use. Why should education be different? Can it afford to be?

Comprehensive School Reform Demonstration (CSR D)

Recently, the U.S. Congress passed an important bill to support the adoption of comprehensive reform designs, ones that affect all aspects of school functioning. The 1997 Education Appropriations bill crafted by Congressmen David Obey and John Porter allocated a total of \$145 million, most of which is to provide grants of at least \$50,000 per year for up to three years to schools proposing to adopt comprehensive reform designs. This Comprehensive

School Reform Demonstration (CSR D) program, now just getting under way, will help schools pay for the start-up costs of adopting programs that affect all aspects of school function. Each state is establishing its own guidelines and review procedures, but most will focus the available money on relatively high-poverty, low-achieving schools.

For the first time, CSR D puts serious money behind supporting programs that can be replicated. If it lives up to its potential, it could be extremely important in disseminating proven programs. However, there is a serious problem with CSR D. As it is currently written, the legislation sets relatively low standards of research evidence for the programs it now funds. It is not hard to understand why. Until now, there has been no demand that programs back up their claims of effectiveness with research. So there are too few programs with solid evidence of success to serve the more than two thousand schools likely to be funded in the first round (1998-99). However, if CSR D funding continues, there is a good chance that evaluation standards will become more stringent.

As more programs are developed in response to the demand, developers are likely to find that, if they can establish their programs' effectiveness, they will be more competitive. If that happens, schools will have what is now seldom available to them: rigorous program evaluations that compare the achievement gains of schools using a particular design with matched control schools. This, in turn, will provide an impetus for independent evaluations, including studies carried out by states and large districts. If this supply-and-demand process works as it should, the result will be better and better programs that have to meet ever-higher standards of effectiveness and replicability.

It is not certain, of course, that CSR D will succeed. Without careful attention to the quality of implementation of the programs adopted and without a toughening over time of the standards used to determine that programs are instructionally effective, CSR D could become just one more federal program shoveling money into the schools with little result. Lawmakers should be eager, long before that happens, to insist on more rigorous standards. Indeed, if the process of toughening standards takes too long, the program could also be dangerously weakened. Yet there is an exciting potential for fundamental change if states, districts, and schools understand the need for demanding proven programs—and the danger of taking promotional brochures at face value—and if they use the CSR D process as a means of setting high standards for educational innovation.

If the Comprehensive School Reform Demonstration program does succeed, it could be the model for even more far-reaching change. In 1999, Title I will be up for reauthorization. At \$8 billion, Title I is by far the largest resource for change in high-poverty schools. Historically, Title I was used for remedial services, but increasingly it has been used to enable schools to adopt programs that affect the entire school. Again, if CSR D develops the rigorous standards for program adoption that it needs, the effect on achievement in Title I schools could be momentous.

The Memphis City school system is likely to be a test ground for whole-school reform. Beginning in 1995, Memphis implemented a variety of New American Schools pro-

grams, plus two others. Additional schools will participate each year until all the schools have chosen a new program. An independent evaluation of achievement outcomes on the Tennessee Comprehensive Assessment Program (TCAP) found that, across the board, elementary schools in Memphis implementing comprehensive designs experienced substantially greater gains than a matched control group, than other Memphis schools, and than Tennessee schools generally.⁵ We will have to await further evaluations to assess the relative success and lasting impact of the various models. However, the results of dozens of studies of individual programs that we already have give us a picture of what the Memphis results are likely to be. These studies demonstrate the potential of comprehensive reform designs that have a solid research base to substantially improve student achievement. In general, the programs that produce the largest and most consistent learning gains are those that are most completely worked out.⁶ These are programs that are more than just good ideas. Instead, they incorporate materials, assessments, teaching manuals, training procedures, and other resources and supports to facilitate high-quality implementation.

Bringing Education into the Twentieth Century

At the dawn of the 21st century, it's time that education reform enters the 20th. In technology, medicine, agriculture, engineering, and other fields, a process of development, evaluation, and dissemination continually improves products and techniques. Professionals make choices among a variety of proven, effective materials and strategies, and then apply them as appropriate to various situations. In contrast, education reform goes from fad to fad, with little attention to rigorous evidence. This must change if education reform is to make substantial progress over time. The development and dissemination of whole-school reform programs, the passage of the Comprehensive School Reform Demonstration, and other developments bring us an important step closer to reform based on evidence rather than fashion. We're moving beyond islands of excellence and beginning to learn how to make what is now extraordinary the norm. Our children deserve no less.

The message of this article is one of hope and urgency. Schools can do a much better job of educating all students, especially low-income and minority students, using methods and materials that are readily available. There are approaches that are effective and appropriate for a wide variety of objectives. The existence of these approaches demonstrates that the low achievement of so many students placed at risk is not inevitable. We need not wait for social or political transformation to dramatically improve educational outcomes for students at risk of school failure. If we were to use what we know now about programs that work, we could make an enormous difference in the lives of all our children. □

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