

## Search The Site

### News

[Today's news](#)

[Current issue](#)

[Special issues & data](#) 

[The Faculty](#)

[Research & Books](#)

[Government & Politics](#)

[Money & Management](#)

[Information Technology](#)

[Students](#)

[Athletics](#)

[International](#)

[Community Colleges](#)

[Short Subjects](#)

[Gazette](#)

[Corrections](#)

### Opinion & Forums

### Careers

### Presidents Forum

### Technology Forum

### Sponsored Information & Solutions

### Campus Viewpoints

### Travel

### Services

[Help](#)

[Contact us](#)

[Subscribe](#)

[Manage your account](#)

[Advertise with us](#)

[Rights & permissions](#)



## Weighing the 'Scale Up' Study

### Education researchers examine how to assess the larger implications of successful small-scale studies

By DAVID GLENN

advertisement

Dallas

In a chilly portable classroom behind Dan D. Rogers Elementary School here, Dedee Hoops is leading four struggling first-grade readers through *A Frog and a Dog*, a book about two kids in animal costumes.

"I know what happens in this story," says one student, swinging his legs beneath his chair. "They're going to change heads!" (That turns out to be correct.)

When the students hit bumps in the road — one girl repeatedly has trouble with the word "beg" — Ms. Hoops gives explicit instructions about how to identify the word by locating and sounding out its phonemes. Later she coaches the students to tap their fists rhythmically as they sound out words that begin with L, the letter of the day: "OK, everyone, sitting tall, faces on me. Show me fists up. Lunch. Llll — uuuunnn — cchhh."

Ms. Hoops, a longtime teacher at the elementary school, is using a package of techniques known as Proactive Reading, which was developed in the late 1990s by researchers at Florida State University and the University of Texas at Houston. In early, randomized experiments, Proactive Reading proved to be extremely effective at bringing "at risk" first graders in Houston up to speed with their peers.

But those early experiments were small, and they were conducted in relatively controlled environments. What would happen if Proactive Reading were brought into a large number of schools, without its creators lovingly hovering over the proceedings? Would the positive effects survive the transition?

Ms. Hoops's classroom is now part of a five-year, \$6-million study that is designed to answer that question. Proactive Reading — along with a similar, slightly less-scripted program known as Responsive Reading — has been brought into dozens of schools in a diverse range of districts across Texas. If all goes well, the study will illuminate whether — and how — Proactive Reading can be "scaled up."

Education research can be cumbersome and expensive, and scale-up studies are among the most cumbersome and expensive of all. But the Texas researchers, along with other scholars who are conducting similarly ambitious studies across the country, say that scale-up research is a crucial, and often neglected, piece of the school-reform puzzle. It does little good, they say, to invent effective new teaching techniques if we do not also

look carefully at how those techniques work in the chaos of the real world.

"We've shown that we can do it in these nice, tightly controlled studies," says Patricia G. Mathes, a professor of education at Southern Methodist University and the principal investigator in the Texas project. "The question now is, If we can do it in one location with challenging students, how can we replicate that for all students? Because if it's possible, then it should be done."

### **Teaching Fidelity**

The Texas study has several moving parts. A central concern is how best to train teachers to use these techniques. All of the participating teachers receive several days of training at the outset — but after that, they are randomly sorted into three groups. One group receives regular, intensive, on-site visits from coaches based at Southern Methodist or Austin. Ms. Hoops is in this group; after her *Frog and a Dog* lesson, Melinda McGrath, an instructional developer at SMU's Institute for Reading Research, sits with her and reviews the four students' week-by-week progress.

She praises Ms. Hoops's pacing and flexibility but warns her to keep an eye on one particular student: "I think he's at risk of being a guesser," she says. "Did you notice how he was saying 'jump' when the word was 'hop'? He's not actually processing the words. When he hits third grade, he could suddenly have serious problems."

A second group receives "virtual coaching" through instant-messaging systems and Web-based video tutorials. (If virtual coaching turns out to be successful, the researchers say, that would be good news because an online system is likely to be more cost-effective if Proactive Reading is ever rolled out on a truly large scale.)

In the third group, the teachers are not force-fed any coaching but can request whatever help they desire. Here the researchers are most interested in the success (or lack thereof) of teachers who do not receive any coaching at all.

The participating schools are given a choice of adopting Proactive Reading or the looser Responsive Reading program. In either case, the intervention is given daily to small groups of first-grade students who are having trouble learning to read.

The researchers set certain minimum guidelines about such matters as when, where, and by whom the intervention is delivered. The instruction, for example, must be led by a certified teacher, and not by a volunteer or an aide. Beyond that, however, the schools can make many of their own choices. Most, like Dan D. Rogers Elementary, have the small groups meet in a separate, quiet room. But in some other, more short-staffed schools, the instruction takes place in the hubbub of a full first-grade classroom; the teacher works with the small group of struggling readers while an aide manages the rest of the kids.

"It really is up to the school to make sure that the intervention is offered regularly, and that varies considerably from school to school," says Carolyn A. Denton, an assistant professor of special education at the University of Texas at Austin who is one of the study's investigators. Ms. Denton and her research assistants make regular "fidelity visits" to see how closely the schools are following the Proactive Reading (or Responsive Reading) model. In some districts, she says, the program is treated as near-sacred; in others, teachers often cancel a session because they have been dragged off to an unrelated meeting, or the kids miss every Friday session during football season because they go to pep rallies at the high school.

Complexity, orneriness, and missed appointments are inevitable in the real world, of course. One of the central questions of the Texas study is how much that variation matters. Will the kids who go through the Proactive Reading program in chaotic classrooms do 10 percent worse than the kids in quiet separate rooms? Or will they do so much worse that they might as well not have gone through the program at all?

The final element of the Texas study is a continuing assessment of the raw effectiveness of Proactive Reading and Responsive Reading. Were the original positive findings in Houston a fluke? In each school, the participating students have been randomly selected from a larger group of struggling first-grade readers. The other strugglers, who are treated as a control group, receive whatever help their school ordinarily offers kids in their situation.

In many districts, that amounts to almost nothing; in a few cases, the schools already have programs in place that are similar to Proactive Reading. If those existing programs turn out to match or exceed Proactive Reading's effectiveness, Ms. Mathes says she won't shed any tears: "It's not about a particular method so much as a particular corpus of content done well. And how you get that taught to the children is not as important as getting it taught at all."

### **Leaning Toward Local Solutions**

This process of developing a teaching method, then tweaking it and moving it to a larger arena, then adjusting it again and moving it to a yet-larger scale, might sound natural and obvious. But it is rare for scholars to have the money, time, and inclination to complete that sequence.

When researchers find that they have invented an effective technique, they often too quickly assume that their results will be nationally generalizable, says Douglas Fuchs, a professor of special education and human development at Vanderbilt University who is leading an effort to scale up a model of peer-assisted learning.

"The assumption is that somebody working in Lansing or Palo Alto with a relatively small number of teachers and classrooms and students has discovered something that will generalize to many, many children across the country," he says. "And most of the time, that hope, that expectation that their work will generalize, is not tested empirically. And the reason is that to do so is very costly. And yet, *not* to do so is to invite valid criticisms that what might work in three schools in a suburb outside of Detroit might not work in other districts."

On the other hand, says Mr. Fuchs, it is important not to swing too far the other way, and to decide that educational practices are so dependent on context that local innovations can never be transmitted at all. Some scholars, he says, are too quick to dismiss "packaged" reforms like Proactive Reading, a version of which was recently made commercially available by a subsidiary of the McGraw-Hill Companies.

"Some people say that truly effective practice always has to be determined at the local level," he says. "And there are lots of good arguments on both sides of that. But it behooves people like me, who are open to packaged approaches, to show that well-developed, rigorously tested practices can sometimes generalize."

One small sign of scale-up's rising prominence is the forthcoming arrival of *Scale Up in Education*, a two-volume edited collection that Rowman & Littlefield will publish in September. That project — which was assembled by Barbara Schneider, a professor of sociology and educational administration at Michigan State University, and Sarah-

Kathryn McDonald, executive director of the Data Research and Development Center at the University of Chicago — will bring together more than two dozen scholars, some of whom come from outside the mainstream of educational research.

Several essays in the volume are concerned with developing statistical techniques for measuring the effectiveness of educational interventions in large-scale, complex, "messy reality" studies like the Texas project. "It's difficult to say when an effect is something that we can point to as being valid and reasonable enough to take action," says Ms. Schneider. "How many sites do you need to be able to say that you're having an effect? You're constricted because of the cost, because you can only go into so many schools and classrooms."

### **Testing and Trust**

Going into schools and classrooms requires not only money but also trust and good will. Generating such relationships has sometimes been a challenge for scale-up researchers. "Here in our Austin site, we've had trouble recruiting as many schools as we wanted," says Ms. Denton, of the Texas study. One major reason: Some principals want their schools' reading specialists to spend almost all of their time with third graders, because that is the year when high-stakes testing kicks in in Texas.

"We've tried to tell them that they'd be better off concentrating on first graders, and that they might see a payoff in their third-grade test scores just two years later," she says. But in many cases, that argument has fallen on deaf ears.

Headaches can also arise when districts go through changes of leadership. Douglas H. Clements, associate dean for educational technology at the State University of New York at Buffalo, and Julie Sarama, an associate professor of education at Buffalo, have been working for several years to begin a \$6-million scale-up study of a pre-kindergarten mathematics curriculum in Buffalo and Boston. "Since we began talking to the districts," says Mr. Clements, "they've both changed superintendents — one of them once, one of them twice. But we finally got it approved." Some pre-K teachers in the two cities will begin using the curriculum this fall.

In all of his work, Mr. Clements adds, he tries very hard to win the trust and cooperation of teachers. Educational innovations will not successfully scale up, he says, "unless you have a solid cadre of people in each school who really know the program and are committed to it." For his new project, however, the Buffalo school district has issued top-down orders that certain schools must participate, and at least one teacher has already filed a union grievance related to the study.

The professor is not thrilled about that dynamic but sees a silver lining: an added dimension of realism. It is not rare for districts to make unpopular commands about curriculum, and Mr. Clements is interested in what happens in a situation in which at least a few teachers are actively resistant to the program.

### **Coping With Conflicts**

One question that hovers over these studies is whether it really is a good idea for the inventors of educational innovations who might profit from their programs to take the lead in promoting and assessing their scale-ups. Ms. Mathes was a primary designer of Proactive Reading; Mr. Fuchs helped to develop the peer-assisted learning model whose scale-up he is studying; and Mr. Clements and Ms. Sarama invented the pre-K mathematics curriculum being rolled out in Boston and Buffalo.

Some might say that it would be better for different scholars to study the scale-up of these programs — both because of potential conflicts of interest and because studying scale-up involves a very different set of skills than inventing an educational intervention does. In an essay in *Scale Up in Education*, Eva L. Baker, a professor of educational psychology at the University of California at Los Angeles, writes that "the surest way to fail with the scale-up of an intervention is to let the inventor or research team continue to guide the implementation and marketing of the enterprise. Simplification and robustness are not always compatible with the particular vision a researcher brings to an application."

Elsewhere in the book, however, Robert E. Slavin and Nancy A. Madden, of the Success for All Foundation, report that they had bad experiences when they tried to "outsource" the scale-up of a comprehensive school overhaul they had developed. Their partner agency, WestEd, often "reinterpreted SFA policies, failed to implement various program elements, or otherwise insisted on its own approaches," they write. (Max McConkey, WestEd's chief policy and communications officer, responds that certain public policies in California necessitated slight adaptations to the program. "Bob is one of those developers who insists on absolute fidelity to his design — which is fine. But if you place an extremely high value on fidelity, then you're probably not someone who should disseminate through an outside agency," says Mr. McConkey, who previously served as executive director of the National Dissemination Association, an organization devoted to scaling up education reforms.)

Ms. Schneider, one of the book's editors, takes a middle ground. Designing a rigorous scale-up study, she says, requires people with sophisticated knowledge about the methodologies. But "I would hate to see a bifurcation between designers and scale-up researchers," she adds. If there were a serious wall between the two camps, she fears, then designers of educational innovations would put their heads in the clouds and pay too little attention to whether their programs could ever expand beyond a single classroom.

Ms. Mathes, for her part, says that she is confident that she can shepherd the scale-up of Proactive Reading in an unbiased way. She does not deny, however, that she hopes the program will someday be used in thousands of districts.

"One thing that we hear again and again from teachers," she says, "is, Why didn't somebody teach me these techniques years ago? There's a real frustration on their part. Most of the teachers I encounter are very hard-working, very well meaning, but they're spinning their wheels using reading techniques that just don't work very well."

<http://chronicle.com>  
Section: Research & Publishing  
Volume 52, Issue 45, Page A12

---

[Copyright © 2006 by The Chronicle of Higher Education](#) | [Contact us](#)  
[User agreement](#) | [Privacy policy](#) | [About The Chronicle](#) | [Site map](#) | [Help](#)  
[Subscribe](#) | [Advertise with us](#) | [Press inquiries](#) | [RSS](#) | [Today's most e-mailed](#)

[Home](#) | [Chronicle Careers](#) | [The Chronicle Review](#)