

Imagine a web strung with pearls. Each pearl is an explanation of a cause-and-effect relationship. Each is linked to every other pearl of evidence coming from researchers in the natural and social sciences. This “Ariadne’s thread” of causal explanations is what biologist Edward O. Wilson sees in his mind’s eye when he envisions “consilience” between all spheres of human knowledge.

In reality, the social sciences hang disconnected, single strands with sparse pearls of causal evidence. One reason is because the quantitative experimental method is not standard in the social sciences—which includes education research—as it is, say, in medicine, agriculture, and engineering. In Wilson’s consilient world, quantitative research from all spheres conveys to researchers formidable predictive powers.

It’s this hunger for the power to predict “what works” in education that gives urgency to the U.S. Department of Education’s effort to transform education into an evidence-based field. No less than 100 times, the No Child Left Behind Act calls for educators to base their practice on “scientifically based research.” In the government’s view, “scientific research” is the quantitative experimental method.

Around the Northwest, teachers and administrators are wanting to become better consumers of such research evidence. But where to begin? The practitioner faces many challenges to using

research to help solve real-world problems.

“The emphasis on having a higher quality research upon which to base decisions is really healthy, though the goal is not new,” says Bob Blum, deputy executive officer for NWREL. “The difference now,” he says, “is the very strong emphasis on a single type of research: the ‘gold standard’ experimental research.”

While the NCLB mandate pushes us toward higher quality, he says, it can also raise an unrealistic expectation among practitioners that there is ample research of that kind to guide every kind of decision they must make. And that’s just not so.

The field of education needs more experimental research to uncover causal evidence, but there are other important questions that need answering that are not questions of cause and effect. Sometimes, for example, you need to find out *what* is happening to *whom* before you can get to the questions of *how* and *why*. The research method must match the research question.

So, it can be a tricky thing for practitioners to know how to find research studies that have findings applicable to the questions they need to answer. And trying to determine which studies are the best—that adhere to rigorous scientific methods—is an unfamiliar task to most school teachers and administrators.

Now that the law has gotten everyone’s attention, schools need help in becoming savvy users of research. NWREL

can help. After 40 years in business, it knows quite a bit about the context in which Northwest schools operate and their particular needs. And it has marshaled its research expertise into specialized research and evaluation units that are there to help schools bridge the gap between research and practice.

“There really does need to be some connection with practitioners early on to talk about their needs and their school context,” says NWREL CEO Carol Thomas. “That dialogue with the school practitioner is critical.”

In this spirit of dialogue, *Northwest Education* examines “The Science of Quality: Education Research in School Reform.” The articles and essays offer sometimes disparate but important viewpoints from practitioners and researchers who are doing and using research for the advancement of education. Together, they are bringing pearls of evidence to the important task of teaching young minds based on sound science.

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FYI: NWREL CEO Carol Thomas and Deputy Executive Officer Bob Blum talk more about this topic in a Q&A available on *NW Education Online* at www.nwrel.org/nwedu/09-04.