Preface

by Robert E. Slavin*

From Lucretius to Galileo to Enrico Fermi, Italy has long played a central role in science, and in the development of scientific methods. In education, it is the home of some of the oldest, most respected universities in Europe. Why, then, should Italy not become a leader in applying science to education?

This book could help Italian researchers and educators to become important contributors in the international movement toward evidence-based practice in education. As the book makes clear, the idea of evidence-based education is simple: use what works. But how do we determine "what works" in the teaching of reading or math or science, with children from preschool to university? The English-speaking world is only recently coming to understand well-justified methods for studying educational innovations, and researchers from non-English speaking countries are beginning to contribute as well.

In the US, evidence-based reform is most advanced. Since 2002, the US Department of Education has funded many large-scale, randomized evaluations of promising programs. It established the What Works Clearinghouse to rate studies and programs, making it possible for educators and researchers to find proven, effective approaches to teaching reading, math, science, and other topics. The Department of Education helped establish a new professional association, the Society for Research on Educational Effectiveness (SREE), and it has made many grants to support the training of researchers to help them use advanced methods for design and analysis of educational experiments. Starting in 2010, funding for development and evaluation of promising programs greatly increased in the Investing in Innovation (i3) initiative, now called Education Innovation Research. Most recently, the US Congress established standards of evidence for educational programs, and is encouraging schools to use programs that meet these standards.

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In England, a similar sequence of investments have been made by the Education Endowment Foundation (EEF), a private philanthropy started with a major government grant. EEF has funded more than 100 randomized evaluations of educational innovations.

As a result of these initiatives, and others inspired by them, us and British researchers are developing, evaluating, and disseminating a wide variety of proven programs. These actions create extraordinary opportunities to improve the outcomes of education on a broad scale. If we know what works, we can use resources wisely to improve education in every subject, at every grade level.

This book presents the key concepts, research designs, statistical procedures, and review methods that could help Italian researchers play a larger role in the evidence movement, both for their own country and for the body of research and practice that is taking shape worldwide.