Preface

B illions of dollars have been spent on education reform in the past decade and a half with results in literacy and math, at best, inching forward. This is not value for money, nor is it satisfying work for teachers, principals, students, and parents.

The thinking that brought us partial, small-scale success is not the kind of thinking that will make a substantial difference in the next phase of reform. Our primary purpose in writing this book is to present a radically different way of thinking about classroom instruction. Along with many others, we believe that the current model is in need of change—change that will transform practice in the same way that health care has been transformed over the past decade.

The groundwork for the new thinking has already been laid. This gives us optimism to think that, over the next few years, a breakthrough will occur in which the education community as a whole focuses on improving classroom instruction and adopts processes for turning it into a more precise, validated, data-driven expert activity that can respond to the learning needs of individual students. Improving classroom instruction on a universal scale is "the Breakthrough" we are seeking in this book. With a concerted effort from where education stands now, it is conceivable that a new "tipping point" (Gladwell, 2000) could be reached within five years.

In this book, we set out ideas for how such transformation can be accomplished. We show that it is essential to move away from what has always been done toward a new reality in which diagnostic practitioners, who have a solid core of beliefs and understandings, develop highly personalized programs that match the needs of individual students. The essence of our proposal is that education needs a system that will support the day-to-day transformation of instruction for all students—a system that is both practical and powerful.

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Such a system must include all levels—the classroom, the school, the district, and the state. To transform instruction on a wide scale is to transform the entire system.

The key to this transformation lies in the smart use of data to drive instruction. Currently, many school systems collect data and feed it back to districts and schools. Much of this feedback is rudimentary and surface level. Where deeper feedback occurs, teachers are not helped to know what to do with it. Even if the data are better analyzed, teachers do not know how to translate the information into powerful, focused instruction that responds to individual students' needs.

Individualization, or what is now called personalization, has always been the bane of the busy classroom. So many students, so little time. Breakthrough is about making personalization feasible on a very large scale. We contend that this can be done without breaking the backs of teachers or breaking the bank of the public purse. Indeed, what is exciting about Breakthrough is that it will make teachers' work more energizing and rewarding, and it will make increased financial investment in the education system a wise thing to do for societal development.

Although the vision will not be realized overnight—it depends on decisions and serious investments by governments, school systems, and the private sector—there is much districts, schools, and teachers can do now to improve instruction along the lines suggested in this book. The ideas can help practitioners to improve their classrooms immediately, as they pave the way for the "big players" to invest in the systems and tools that classroom teachers need to conduct focused instruction on a daily basis.

We are by no means the first to suggest that the key to the transformation of learning in schools lies in the smart use of data to drive instruction. However, many pioneers of the use of data-driven instructional approaches have resorted to prescriptive approaches to create solutions that are workable in the complex and messy world of the classroom. Our book is not about prescription; it is about precision—the kind of precision that is tailored to the individual needs of each and every child in the classroom. It takes a system to deliver personalized precision.

Breakthrough work recognizes that it is time to shift the paradigm—and to do so in a way that both is practical and yields high-value return relative to financial and energy-based investments.

It is an invitation that educational leaders dare not turn down because the public school system in most countries is in a precarious state. In such times when something must be done, there is a fine line between breakthrough and breakdown.

The examples in this book came primarily from our work in early literacy, but the instructional system we propose applies to other learning domains such as math, science, history, and so on. Subject matter may differ, but the basic principles of learning, or rather *improving* learning, remain the same.

In Chapter 1, we make the case for a new mission for schools commensurate with the needs of the 21st century. If "No Child [is to be] Left Behind" (NCLB) in the United States, and if "Every Child Matters" in England, then schools must move from slogan to reality. The new reality is 90 percent or more success measured, for example, by students who achieve proficiency in literacy and numeracy by the time they are eight years old. In other words, proficiency that greatly enhances their chances for success in school and beyond. Society is the beneficiary both in economic and social terms. Chapter 2 shows that all the ingredients for success exist in one place or another. The goal is to bring them together in one concerted effort that permeates the system. Chapters 3 through 5 provide the shape of success concerning the kind of classroom instruction that will be needed. The final chapter focuses on the leadership infrastructure that must surround classroom instruction if Breakthrough is to be successful.

The reason we believe that the field of education has a chance to reach a new breakthrough is that there are many great beginnings now under way. We thank, in particular, those colleagues in several countries with whom we are working, too numerous to mention here by name. It is a great and crucial journey, and we are thankful to be able to learn from such groundbreakers. Alas, there is some distance to go.