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# *Preface*

**W**ithout a doubt, we live in complex times. Recently, I was sorting through the stacks of studies, reports, and reviews on 21st century education I've read, trying to make sense of the diversity of studies, perspectives, and opinions found there. While doing so, I heard an unexpected and most straightforward comment: "When times get complicated, people look for simple answers." The speaker was Ira Glass (2010), the producer of *This American Life* on National Public Radio. He continued to explain that it is difficult for people to face the world's complexities; as a result of this tendency to oversimplify things, a "fact gap" exists. His idea rings true to me, because many sectors in education are seeking simple answers to very complicated problems.

Over the years, I have seen a steady stream of initiatives in education. I am still amazed at how these proposals become popular and then fade away. From open classrooms and whole language, to charters and common core, we repeatedly seem to grab on to the latest reform in hope that it will provide an easy fix, only to discard it when it doesn't work and wait for the next "best thing" to come along. These initiatives fail because of oversimplification, uneven implementation, inconsistent monitoring, and other reasons. Rarely is quality assessment incorporated in the blueprint, yet it must be an essential component of any formula for reform.

Along with complexity, there are a number of current tensions in education. Some say that our schools must undividedly focus on literacy and numeracy. At the same time, there is strong support for college and career readiness. In reality, no one is ready for college and career without a robust foundation in core skills and knowledge. But those foundations must also incorporate 21st century skills: critical thinking, actions for success, and the ability to genuinely apply these in a global society. For the sake of today's students who will be competing in a rapidly changing world, we must extend learning beyond the core and

provide relevant and challenging real-world connections throughout their education.

These two ideas—*core* and *21st century*—are not in opposition to each other. 21st century skills do not replace content knowledge, but complement it. Meaningful content, combined with quality instruction and valid assessment, is the starting point for expanding learning opportunities. Embedding 21st century skills, along with relevant assessments connected to real learning, into all parts of the curriculum, is one of the central tasks of teaching in our time. Some might say we've always done this. Progressives in the 1800s were strong supporters of critical intelligence and applied learning. Contemporary figures such as Ted Sizer and Dennis Littky embraced and implemented these ideas. Nonetheless, I contend that we have rarely assessed the outcomes of these practices in a practical and consistent manner.

The research and the voices of authority that are reported on in the book convey an imperative: We must intentionally change both what we are teaching (from simple content to complex thinking) and how we are teaching (from delivery of information to student engagement and building of knowledge). Changes to assessment must follow: We must shift from reliance on traditional selected-choice and completion instruments to a greater emphasis on alternative measures of authentic learning. This requires a refocus from once-a-year, large-scale measures of literacy and numeracy to multiple and local models of assessing higher-level thinking, creativity, collaboration, digital skills, and global understanding.

In a dream, I'm standing at a crossroads in educational assessment. The signpost points me in contradictory directions and forces me to make difficult choices. Should I head down the road toward standardized tests or toward alternative assessments? Is content knowledge more important than critical thinking? Do I really have to choose between summative and formative assessment, large scale and local? And then there's that aha! moment when I wake up with clarity. There are decisions to be made, and as I take the first steps, I feel elated and relieved. I can no longer wait for the engines of education to decide the path for me. The guidepost at the beginning asks, "What is it that we want and need students to know, understand, and do to be successful in the world of today and tomorrow?" I see the path we need to take. It is one that focuses on 21st century outcomes. And I start down it.

In this book, you'll find recommendations for action along with strategies for assessment in the 21st century classroom. The ideas extend basic content knowledge into a model of 21st century knowledge and skills, the need for which is driven by current forces such as globalization, technology, and changes in the demands of the workplace. To respond to these circumstances effectively, we must ask ourselves such questions as these:

Can our students question and critically evaluate the information they view? Are they able to work together to solve problems? What do they do when faced with new problems? Are they able to understand and synthesize multiple perspectives?

Chapters 1 through 4 provide an introduction to current perspectives on education, a summary of several 21st century learning paradigms, fundamentals of assessment, and a variety of strategies for assessing authentic learning. A synthesized model of 21st century skills incorporating insights from all the varying schools of thought provides the foundation for the rest of the book. This straightforward view includes three groups of skills: *thinking, acting, and living*.

The model provides the foundation for developing appropriate and meaningful assessments. Chapters 5 through 8 offer a spectrum of strategies for assessing thinking, acting, and living skills. A range of educational outcomes are cross-referenced with 21st century skills and aligned with strategies for measuring those outcomes. Each section includes explicit examples that can easily be adapted to classrooms in multiple content areas and grade levels.

In its conclusion, the book recognizes that assessment must be a key part of any proposal for reform of education. Recommendations are made for changes to policy and practice. These recommendations may not be a panacea, but they can refocus the debate toward an emphasis on the learning outcomes that really matter for our children—both today and for our kindergarteners, who will be retiring in the 2070s. This refocusing requires that we decide in the present what we want and need our students to know, understand, and do in the future. It requires us to identify new ways to recognize when these changes happens and to develop new strategies and metrics to achieve these outcomes.

Reading this book, you will meet teachers who are using these strategies and see examples of them in action. This book is by and large about teachers and students, about teaching and learning. It focuses more on day-to-day classroom assessment than on large-scale assessment. Educational theories and strategies will evolve to ensure that all learners are prepared to be productive citizens of the 21st century. The world continues to change; there will always be disequilibrium. It is this disequilibrium that leads to transformation. Amid the complexity, there are clear steps that can be taken to guide the change.

Next you will find the first of many charts, tables, and diagrams that have been included in this text to facilitate understanding and to aid in immediate implementation of the strategies. Figure P.1 not only gives you an overview of this book's aims, but it also explains what this book is not. If you are looking for a book about radical reform, this isn't it. If you are interested in thoughtful, informed, and reasonable change, please read on.

**Figure P.1** About the Book

<i>What This Book Is About</i>	<i>What This Book Isn't About</i>
Recognizing and keeping what's good in education	Demolishing the current system of education
Incorporating 21st century skills throughout teaching and learning	Exchanging core skills and knowledge for 21st century skills and knowledge
Assessment for learning: informs and engages students in assessment	Assessment of learning: Producing final test scores and measuring students for reporting purposes
Modifying current practices for better compatibility with 21st century practices	Replacing current practices with entirely new practices and paradigms
Considering a spectrum of 21st century skills and knowledge: some closer to traditional, others more remote	Stipulating and mandating specific skills and knowledge
Broad-based standards that guide complex learning for all grades and content areas	Narrowly focused outcomes defined solely by national standards
Description rather than prescription	Prescription rather than description

*Not everything that counts can be counted, and not everything that can be counted counts.*

– Albert Einstein