## Foreword

n the early stages of introducing technology into American classrooms (not very long ago, really, in the scheme of things), Apple donated computers to schools and classrooms to be used by teachers for the benefit their instruction and student learning. Because the computer company had ample resources, it sent "coaches" along with the computers to help teachers acclimate to the new technology. Again, because of adequate funding to support long-term work, the coaches remained in the schools, on and off, over a period of about 10 years. This arrangement had a two-pronged benefit. First, teachers in the selected schools had knowledgeable support in learning about computers. Second, the Apple coaches had time to understand what facilitated and impeded teacher use of computers for instructional purposes.

In regard to the latter, an interesting—and not very surprising—thing happened. Many teachers found the computers to be more of a hindrance than a blessing! Given a choice, they'd have put the computers back in their boxes—or at the very least, sent the coaches packing.

It turns out that technology was really neither the problem nor the solution to the problem. Learning to use computers was of scant value to the teachers until they began to reinvent their visions of teaching and learning. They needed to move from a teacher-centered to a student-centered view of the classroom, from teacher as teller to teacher as facilitator, from student as listener and absorber to student as collaborator and sometimes expert, from knowledge as accumulation to knowledge as transfer and transformation, from a learning emphasis on facts and replication to relationships and inquiry, from success defined quantitatively to success defined qualitatively, from assessment as testing to assessment as performance, and from instruction focused on seatwork to instruction focused on communication, collaboration, and expression.

On its face, that change is revolutionary. In reality, it was evolutionary. Teachers tended to progress through a series of "movements" over time. Early in the progression, they simply learned about the technology so that it seemed less intimidating. In time, they began to use the technology—often slowly—to support traditional instruction. Later, they used the computers to support student productivity in things like word processing and math practice—still in the context of traditional thinking

and planning. Later still, the teachers began to envision and use computers as one tool available to students in doing interdisciplinary and project-based work. And finally, the teachers (or many of them, at least) began to use computers, in combination with many other tools, in innovative ways that served their own purposes and those of their students. The ACOT coaches as researches spoke of these developmental stages as resistance, adoption, adaptation, appropriation, and invention.

Along the way, the teachers began to trust that their students could learn when a teacher was not "standing over them." They also came to believe that learning was something that must happen *in* students, not *to* them. At the same time, the teachers began to conceive curriculum as a plan to engage students with critical ideas and skills rather than as a race to cover data, and they became facilitators and guides in that process rather than dispensers of facts.

At each juncture along the way, teachers and students were "freed up" to become more inquiry-oriented, more thoughtful, and more original. It was not uncommon for teacher and student to "reverse roles," with all classroom players learning from and teaching one another. As the transformation developed, the computers shifted from an annoyance that was imposed on teachers to a potential means for accomplishing valued ends.

Most really promising approaches to teaching and learning require that teachers embark on a journey—a transformation—very similar to the one the ACOT teachers encountered. It's almost never the strategy or the model or the innovation per se that's going to transform teaching and learning. What makes the difference is growth-oriented teachers who come to understand the essential nature of teaching and learning and who then realize the potential of a curricular model, instructional approach, or set of technologies to help them become authentic teachers and their students become authentic learners.

The ACOT journey—the transformation from resistance to adoption to adaption to appropriation to innovation—is a precursor to effective differentiation and to effective classroom flipping. On the one hand, flipping and differentiation seem like a dual transformation—twice the effort, twice the risk. In reality, however, the two approaches ask the same thing of teachers—an emphasis on student as meaning maker and teacher as guide and facilitator who has a willingness to innovate. Differentiation seeks one additional shift—acknowledging the reality that students rarely enter or exit a lesson at the same point and that, for many students, real learning can't happen until the teacher acts on that reality.

It is at this intersection that both flipping and differentiation become prime partners. Flipping exists to provide classroom time for a teacher to coach for student understanding rather than using class time largely or solely to dispense information. Differentiation provides a model that enables teachers to use that classroom time to attend to learner variance rather than working from the assumption that "batch instruction" is the best we can do. In this book, the authors provide a frame for understanding the power of combining flipping and differentiation, and they present the two approaches not as add-ons to teaching, but rather as core to achieving what the vast majority of teachers aspire to achieve—significant and observable growth for every student who comes their way. The book clearly presents the underpinnings of effective instruction, embeds their guidance flipping and differentiation solidly in those underpinnings, and provides sound instructional strategies for attending to student learning differences in the context of a flipped classroom. In essence, they present Ms. Velazquez's ACOT transformation as a metaphor for the kind of change that's critically needed in today's classrooms so that they can become contemporary places of learning for today's students.

Edward Land, inventor of Polaroid, commented that change is the mandate of nature as we can observe it on every hand. Today's successes, he cautioned, become tomorrow's failures. Not to grow is to die.

The irony, of course, is that he seems to have overlooked his own advice. So successful was Polaroid—so up-to-date or even ahead of the game—that it seemed unnecessary to push the margins of change. He gave us, for a brief time, a great camera system—and then another example of today's successes becoming tomorrow's failures.

Most of us as teachers work very hard. Most of us see ourselves as successful. This book challenges us to grow anyway. It's the right challenge at the right time for the right reasons.

## -Carol Ann Tomlinson, EdD

William Clay Parrish, Jr., Professor and Chair Educational Leadership, Foundations, and Policy Curry School of Education University of Virginia