

# **BOLD MOVES** **FOR SCHOOLS**

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How We Create Remarkable  
Learning Environments

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# Foreword

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*by Ken Kay*

More than 15 years ago, a group of education and technology companies asked me to start a national advocacy group to promote a new model of education aligned to the needs of people in the 21st century. The result was the Partnership for 21st Century Skills, the development of a Framework for 21st Century Learning, and a focus on “the four Cs” (creativity, collaboration, communication, and critical thought) necessary for students’ success in the 21st century. Since that time, visionaries including Thomas Friedman, Tony Wagner, Linda Darling-Hammond, Sir Ken Robinson, Michael Fullan, Yong Zhao, Barbara Chow, and more recently Ted Dintersmith have ably made the case that the purpose of teaching and learning needs to change to serve the needs of students in an ever-changing culture, society, and economy. In addition, Heidi Hayes Jacobs and Marie Hubley Alcock are change-making thought leaders who have developed compelling models of action to implement this new vision through curriculum and pedagogy. I am honored to write this foreword because this book appears at a crucial historical juncture in the education movement.

*Bold Moves for Schools* articulates the crucial change-making strategies required to move from a first phase of 21st century educational change—what I call the “table setting” phase—to a new phase of deep implementation throughout the education system. For many years we have made the case for change, developed proof-points, and piloted innovative strategies. Indeed, we have witnessed the emergence of several schools, districts, and networks at the vanguard of this movement—such as High Tech High, Expeditionary Learning, Big Picture Learning, and the New Tech Network. And in my work with EdLeader21, a professional learning community of more than 200 schools and districts serving more than 2 million students, I have witnessed staggering transformative changes in local schools and districts that have chosen to situate themselves at the cutting edge. But the time for deep implementation in all

our schools has come—and *Bold Moves for Schools* articulates the concrete changes that need to take place to move forward. The authors call for no less than a reconstruction of schooling—figuratively, a reconstruction of our understanding of the roles of the student and the teacher, and literally, a reconstruction of the facilities, processes, and structures that support student learning.

During my six years as the CEO of EdLeader21, I have had a unique vantage point from which to witness leading schools, and districts’ efforts to enact these kinds of conceptual and structural changes. Their experience suggests four essential anchors of 21st century education transformation: a *21st century vision* of teaching and learning, *impactful pedagogy* to serve that vision, *transformative leadership* to enact the vision, and *deep implementation* to ensure that all of our schools’ systems, structures, and policies support that vision. Let me briefly address each of these four anchors, and the ways this volume contributes to and resonates with the collective wisdom of school leaders at the leading edge of this movement.

## A 21st Century Vision of Teaching and Learning

Heidi and Marie remind us that “new roles and new relationships are emerging between and among learners, teachers, leaders, and school institutions” and that “the antiquated notion of student as receptacle is over.” But many schools and districts find themselves flailing around in the pursuit of a coherent new vision—experimenting with new and promising practices and challenging outdated assumptions, but rarely rallying around a clear and purpose-driven vision. This is the most maddening, perhaps, when allegedly “new” approaches such as personalized learning and one-to-one computing are directed to “old” purposes that position the student as a consumer of content rather than as a creator, communicator, collaborator, or critical thinker. Many schools and districts embrace evolving strategies and tactics without ever reframing their goals.

The best transformative districts I have observed embrace a set of 21st century competencies; some have specifically adopted a profile or portrait of a graduate. These vision statements outline the competencies that are critical for each student to develop and are well beyond the 20th century focus of content mastery and memorization. *Bold Moves for Schools* helps us to reconceptualize the roles of both the student and teacher as a “self-navigating professional learner,” as a “social contractor,” as a “media critic and media maker,” as an “innovative designer,” as a “globally connected citizen,” and, in the case of the teacher, as an “advocate for learners and learning”—and, thus, provides an indispensable contribution to guiding our creation of a credible vision for teaching and learning in more schools and districts.

## Impactful Pedagogy to Serve That Vision

Your school's or district's vision won't find its way from your website to your students' experience of learning without fundamental changes in classroom practice: as Heidi and Marie warn, "We can have well-intentioned, lofty missions to supporting our learners into the future, yet the actual program structure is antiquated and inhibits the realization of the stated goals." We need teachers to embrace teaching strategies that foster 21st century competencies: "If the 'job' is to encourage innovation, then the teacher must delve into what motivates and reaches the hearts and minds of learners and create environments ripe for risk taking." The right pedagogies for this work—such as project-based learning, design thinking, and inquiry-based learning—require that teachers reframe, rather than simply recalibrate, their understanding of their professional role.

Crucially, the authors remind us that "pedagogy results in actions" and not just the transmission or consumption of content; similarly, assessment practice needs to shift from outdated methods that verify teachers' successful dissemination of information and frame students as receptacles for it. One EdLeader21 district requires every teacher, in each class, during each semester to include at least one 3-day "creative problem-solving" performance task: students engage in a scaffolded process and produce a complex product, and assessment changes from assessment "of" learning to assessment "as" learning. This district provides its teachers with considerable support to design these performance tasks because they serve the priority goals for learning embedded in their vision.

## Transformative Leadership to Enact the Vision

Every transformative school or district I have seen has a visionary and committed senior leader; transformation doesn't happen without one. But these leaders don't function autonomously or autocratically: they have honored the authors' call to "hit the 'refresh' button on the notion of what leadership means now and what it could mean in future learning environments." These leaders model the creativity, collaboration, communication, and critical thought that they want to cultivate in their schools; they pursue their own professional learning in professional learning communities; and, critically, they empower their leadership teams and teachers as leaders in their own right.

In an enlightening book called *Turn the Ship Around!* David Marquet explains how he took the worst submarine in our nuclear fleet and made it the best by empowering every person on the team to be a leader. Similarly, education leaders—whether

in schools and districts that are low performing or high performing—need to engage and empower their school and district leaders as thought partners and change makers in professional learning communities. Heidi and Marie affirm this notion through their exploration of lateral leadership strategies, asking what might be the most relevant question of all: “How can we forge ahead into creating innovative and dynamic remarkable learning environments if we hold onto a rigid hierarchical leadership structure?”

## Deep Implementation Across Systems, Structures, and Policy

Districts far along in their 21st century education journeys find themselves implementing their visions more and more deeply over time. Initially, they identify crucial competencies for students, but then they recognize the importance of those competencies for teachers, leaders, and staff. Some of our districts have established those competencies as the organizing principles of their policies—ensuring, for example, that human resources departments recruit new employees with those skills and cultivate programs and partnerships to sustain their growth.

Heidi and Marie echo these transformative districts’ experience in their model of action, affirming that deep transformation must cut a wide swath. Curriculum design alone will not be adequate: the design of classroom spaces and the architecture of school sites need to be reimaged as “the physical plant of a school is a concrete manifestation of pedagogy.” Similarly, we need to reconstruct outdated conceptual structures such as our organization of time (reimagining the school calendar and schedule to better serve the needs of learners) and our organization of groups of student and professional learners (creating more dynamic, flexible, inclusive, and interest-driven groupings).

Perhaps most provocative among the *bold moves* articulated by the authors is their insistence—rightly, bravely, and absolutely true to the example of bold district leaders with whom I have had the opportunity to collaborate—that we reconstruct our role and influence in policy deliberations about testing policies and state accountability structures that do not support 21st century educational outcomes. They write powerfully that “mindsets matter. If we wish to break sedentary habits, we need a seismic shift in how we view our profession, project that view to the public, employ it with policymakers, and communicate it to one another. In this way we can be innovative and successful together as a profession and with our learners.”

## Conclusion

I am truly excited that we are emerging from the table-setting period into the deep implementation phase of our nation's 21st century education journey. In part, my excitement stems from witnessing for many years the impact of initiatives in maverick schools and districts and recognizing the potential impact of such changes in every classroom and for every child. But my excitement is deeply personal as well—for one child who stands to benefit is a treasured member of my family.

A little more than a year ago, I received a call from an assistant superintendent with whom I had collaborated in EdLeader21: she had just been hired as the superintendent of my grandson Ollie's school district. After all these years—going to school in what now feels like another era, sending my own children to school before these changes were on the horizon, and working with schools through the dawn of the 21st century education—a member of my own family is going to be a student in a 21st century district! I feel more deeply than ever the importance of this work; I know that its success will ensure that my grandson can address whatever challenges life, citizenship, and work will throw at him in the coming decades of unimaginable change. With this personal comfort comes a deepening of my professional passion as a learner, advocate, and leader.

*Bold Moves: How We Create Remarkable Learning Environments* provides not only a conceptual foundation for understanding the breadth and depth of changes that will be required, but also concrete strategies to make them. Redefining the roles and responsibilities of students, teachers, and leaders—and reconstructing the systems, structures, and policies that support students' success in the 21st century—can and will happen at a greater scale. *Bold Moves* helps to map the landmarks of the bold course you'll chart on your own 21st century education journey.

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# Introduction

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In every part of the world, when the sun rises each morning, a teacher rises, too. The rituals may vary in terms of brushing teeth, making coffee or tea, getting dressed, scooping lesson preparations off a desk and throwing them in a briefcase or backpack; but there is always a sense of a new day. It is easy to imagine through history a teacher in ancient Greece heading for the agora or a Chinese scholar at the pagoda, a young Englishwoman at a manor house approaching a group of children, a sensei bowing gracefully toward his students in 19th century Kyoto, a Kenyan schoolmaster in charge of the village students—all approaching the day with anticipation, excitement, or anxiety.

As an educator, you are part of that chain of teaching stories, sharing traditional routines and roles of teacher, leader, and student. But now is a different time, and we are all learning in new ways, with new portals, new spaces, and new connection points to reach our students. The morning rituals have changed in some ways, too. We check our text messages from colleagues and open our laptops to see the weather forecast and consider how it might affect our field trip. Our classroom spaces embrace virtual platforms and our students can receive direct instruction 24/7 on a web page; we can link with faculty members in the global professional networks we have joined; curriculum can be updated and revised immediately; and students can demonstrate their learning through multimedia projects.

Taken together, all the dynamic possibilities flooding the planning desk can seem overwhelming. Questions emerge, tensions arise, and disequilibrium pervades our field. In this book we hope to address the nature of a new kind of learning that recognizes that those of us formerly called “teacher,” “administrator,” and “student” are now all new kinds of learners. On an even more challenging level, we see a corresponding need to seek new kinds of learning environments beyond the old view of school. Our aim as authors is to stimulate and to provoke active and purposeful thinking about how educators, as individuals and institutions, can make the transit from the past to the contemporary with an eye on the future. In particular, we wish to frame the transition on multiple levels that are intrinsically connected.

## The Inherent Boldness of Innovation

Innovation requires courage coupled with a realistic sensibility to create new possibilities versus “edu-fantasies.” Moving boldly is not moving impulsively or for the sake of change. Moving boldly involves breaking barriers that need breaking.

We see constant evidence of confounding resistance to matching the structure and policies of learning institutions to actual present-day needs. It seems obvious that there is a firmly established economic system that sustains itself only on a very old perception of what a school system is. Certain businesses and corporations are dependent on that old system. Consider, for example, the proportion of annual school budgets spent on reductive testing that is identical in format to tests given in 1963, the year standardized testing first emerged. This fact speaks volumes.

Although national publishers claim that they are moving to a new 21st-century testing solution, the prototypes point to multiple-choice tests and limited-response items that are now simply administered online. Considering the evaluative weight and the perpetual crunch of the event-based testing ritual—that is, the one or two days or that week of the year when the most critical tests are administered—we could change mission statements to say, “Our mission is to support and to maintain the testing industry at all costs.”

Yet what are teachers and principals supposed to do? If job security is dependent on and student progress is measured disproportionately by the *event*, then decisions on curriculum and instruction will be made with that date on the calendar as the compass setting. The most fundamental structures in our schools are often inhibitors to progress: our schedules, our physical spaces, the grouping patterns of learners, and the configuration of personnel. The challenges are real and will require bold and informed moves—the kind of moves we describe in this book.

## How This Book Is Organized

In Chapter 1 we examine the need for updated learning principles and beliefs supporting a refreshed pedagogy to inform students, teachers, learning organizations, and policymakers. In Chapter 2 we consider what it is to be a contemporary teacher in terms of capacities needing cultivation for effectiveness in both virtual and physical spaces. In a very real sense, new kinds of learning require new kinds of teaching. Chapter 3 addresses significant shifts in how teachers and institutions can grapple with choices regarding the design of curriculum and assessment. We explore strategies to challenge dormant views of the subjects and to promote the need for

continually refreshed curriculum in a time of continual growth of knowledge. Given the ongoing work on shaping personalized learning experiences, we present a model for designing contemporary quests. The need for relevant and timely investigation and the possibility for compelling assessment outcomes drive the model.

If we are going to support the efforts of new kinds of teachers and upgraded practice in the design of curriculum and assessment, then the rethinking and redesign of schools is critical. Otherwise we have 21st century teachers operating in 19th century school structures—or, even more alarming, teachers leaving our profession frustrated and disappointed. With a focus on four basic program structures—space, time, grouping of learners, and personnel configurations—we explore in Chapter 4 a menu of options that planning teams can consider to create new learning environments. We have been inspired by some dynamic architectural designs, both exterior and interior, emerging from around the world that reflect the kind of imagination and openness to possibilities that we believe should be part of teaching and learning. The chapter features some outstanding examples that we hope will spark consideration.

The question emerges as to who will lead these efforts, and how. The word “leadership” is a compound word. Traditional models point to the “leader” as the “captain of the ship.” With more fluid professional groupings emerging in both physical and virtual settings, in Chapter 5 we examine the concept of lateral leadership, with formal partnerships appearing to be a natural alternative to one person in charge of everything. We explore future directions given the emergence of cyber faculty, leadership by talent versus role, and the opportunity for deeper ties to family and community via digital media communications. Chapter 6 explores the use and abuse of old-style standardized assessment in our schools and by our society. Certainly, thoughtful and meaningful demonstrations of learning are critical in providing feedback to students and to the professionals supporting them, but habitual pummeling based on results from limited, reductive assessment has negative impacts on the entire system. We raise the possibility of accountability for innovation in assessment and the potential positive impact this would have on learners, and we offer specific tenets for refreshing and modernizing assessment policy, with current examples from the field.

Recognizing the impact it would have on all decision makers, in Chapter 7 we propose and examine the need for a modern, robust learning system that can stand on a common platform yet provide a multitude of options. Central to moving forward is the need to support ongoing efforts for educators to become self-monitoring and modernized. Currently, the ease with which the “we/they” mentality invades our language and actions has the effect of limiting dialogue between practitioners and

policymakers. We examine the overwhelming influence of policymakers, from government officials to publishers, in relation to a learning system's effective functioning or dysfunction. We have drawn up a set of commitments to support thoughtful and conscious policymaking on a transparent platform that respects learning. We do not see this goal as impossible, nor do we see that the goal is to expect agreement on important policy decisions.

The question that drives our work from Chapter 1 through Chapter 7 is this: Are we setting a direction and taking actions to support *right-now* teaching and learning? Writing the hyphenated word "right-now," we recognize that the present is challenging, often frustrating, and also rewarding. Educators want to make progress and meaningful moves to support their learners. Let us begin by considering the realities of the educator today.

## What Does It Feel Like to Be an Educator Today?

So, how does it feel to be an educator today? As we travel and meet groups of teachers and administrators, we have observed some pervasive negative and positive feelings. On the negative side, educators feel overwhelmed by the following:

- Changes without real change
- A culture of threat or distrust
- Not enough time

On the positive side, they may be motivated by the following:

- A joy in learning
- A belief in the importance of preparing children for future possibilities
- A connection to community building

These observations form the basis for our examination of what it means to be a teacher and a leader today.

## Changes without real change

Change is a constant. The way human beings respond to change can make the difference between productivity and decay. In our schools, we can initiate change toward growth with deliberation. However, change without the vision and dedication to support sustained growth and the creation of new structures to support learning is superficial if not superfluous. As leaders leave positions, their departure brings a shift in focus and initiatives. With so many new things to learn, this ebb and flow

can cripple long- and short-term goals. The resulting waste of resources and lack of follow-through to sustain the learning at an organizational level leaves even the most dedicated teachers demoralized and unwilling to muster the motivation to learn more. This pattern can end.

There are, indeed, increasing expectations for schooling and an acknowledgment that those expectations will continue to grow. School was once a place where all students came to learn the basics: reading, writing, and arithmetic. Once they had acquired the basics, most learners returned to their farms or future professions regardless of their age; it was a skills-based system. Students who were academically inclined were encouraged to stay in school and broaden their studies. It was normal, in both the agricultural and the industrial models of education, for many students who were not academically inclined to leave school during the primary grades. Doing so was not seen as failure as much as an indication of no longer needing to learn academics.

In the information age, we need a new model of education in which schools change from being a source of basic skills for all and academics for some, to a source of rigorous learning for every child. We need pedagogy that provides entry points and options for a new kind of learner. We look for curriculum platforms that develop inquiry skills and allow students to design inventive solutions. It is an age requiring new forms of meaningful assessment and feedback that are descriptive and promote learning rather than being reductive, standardized experiences. With dynamic possibilities emerging, why do so many teachers and administrators feel frustrated and overwhelmed?

## **A culture of threat or distrust**

Our profession, as a whole, exists in a culture of threat. As a group, teachers, administrators, and education policymakers sense people's distrust and disappointment in our public system. Individually, parents and students describe a positive feeling about their schools, but when surveyed about education in general they describe performance as being lower than expected and a system that is neither efficient nor cutting edge. These last two items are troubling because they reflect a general public perception that within our profession we are not communicating with each other or coordinating our efforts.

Politicians are calling for accountability and states are working feverishly to show growth in student achievement. The emphasis on testing and results has created knee-jerk responses from school personnel. When it is appropriate to assess the

performance of a teacher or an administrator based largely on a single standardized assessment without input from professionals within the field, then we are working in a culture of high threat.

What are the effects of a culture of threat? People do not make their best decisions when they are working amid threat and distrust. It is intimidating for teachers and administrators to take responsible risks when they have a palpable fear of failure. In a culture of threat, they begin to worry about being blamed for decisions, and thus the fabric of unity and community grows thin. The culture of threat erodes innovation, creating a conflict between short-term gains and long-term planning. Educators who are loyal to learning are frustrated by the culture of threat. Good teachers are forced into actions that ultimately result in bad decisions, and they are sickened by the helplessness they feel. Finally, there is a perception within the profession that no one can actually change the process.

We would like to challenge that perception. Key to making the shift in perception to one of growth and future-oriented learning is the reconsideration of time.

## **Not enough time**

“Not enough time” refers to the perception that in our education settings we keep adding to the to-do list without removing items. The agricultural and industrial systems of education acknowledged demands on students’ time that allowed them to leave school to meet family responsibilities or financial needs. It was not within a school’s purview to force students to stay. Now that schools are a required institution of learning, the logistics of monitoring children’s academic achievement, physical health, and emotional well-being are exponentially more complicated. These demands create conditions that have a tremendous impact on the quality and distribution of time in school.

The use of teachers’ and administrators’ time is a matter that is under constant debate in contract hearings and negotiations across the United States. Certainly the underlying question should be, what are the optimum time frames to meet the needs of learners in a specific setting? Given that learners of all ages can spend time regularly in virtual environments, teachers are devising new solutions and advocating for networked learning for their students and for themselves. One of the concepts we explore in this book is how distributed leadership and the sharing of responsibilities can allow adults to focus their work time to achieve greater efficiency. In the end it comes down to what we do with the available minutes. The issue we see in many classrooms and school hallways is that teachers are constantly trying to be all things.

The teacher is the academic leader, behavior model and manager, guidance counselor, emotional nurturer, physical therapist, joy and fun promoter, safety patrol officer, assessor, and learner. It is as much a chore to sit down and plan how to do it all as it is to actually fulfill these roles. This is the heart of the problem described by so many professionals, and it is why we propose a new job description for the contemporary teacher.

## **Finding Joy in Learning, Future Possibilities, and Community Building**

We enter this profession for many reasons. Certainly immediate circumstances can prompt a pragmatic decision to go into the field of education *to get a job*. We become educators through the notion of a *calling*, an internal mission that moves an individual to enter the world of learners, teachers, leaders, and schools. It might be the joy in seeing people learn; it might be a commitment to helping to shape the future or a passion for contributing to a learning community. Performing the art and craft of teaching and learning induces this joy, which is crucial when facing difficult challenges. Students know when a school leader or a teacher has the “spark” and when that person has lost it. Making moves to improve the quality of learning for the present-day learner ignites the joy and is essential to progress.

Making moves may emerge from a realization that rigidity is not strength. Obvious dangers emerge when institutional memory calcifies around habit, laurel-resting, and *the way it has always been*. Idealizing and romanticizing the “glories of the old school days” impede the creation of right-now places of learning. When dated teaching methods become institutionalized, it is tempting to rely on them and defend them. Breaking set—doing something in a way that differs from the norm—is critical because so much is possible when we explore different options, challenge what we know, and commit to learning more. Breaking set requires bold moves.

In this book, we express our commitment to and reliance on the existing talents and expertise of educators to advocate for and move our profession toward contemporary practices that better align with future needs. We hope to further the discussion of what is important and issue a challenge to what is habitual. We believe deeply that if we focus on what is strong in our calling, we can find the courage and determination we need to do what is bold and important. We support bold moves rather than tepid reiterations of the past because boldness sparks innovation, propelling the useful and informed actions that are required to complete the transition to “right now.”

# Refreshed Pedagogy for the Contemporary Learner

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**contemporary (adj.)**—1630s, from Medieval Latin *contemporarius*, from Latin *com-* “with” (see *com-*) + *temporarius* “of time,” from *tempus* “time, season, portion of time” (see *temporal* (adj.)). Meaning “modern, characteristic of the present” is from 1866.

—Online Etymology Dictionary

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What do we cut? What do we keep? What do we create? What does learning look like now? How does the contemporary teacher determine what to hold onto from the past? What experiences do we create to keep learning fresh and vibrant, resonating with the times in which we live? How does a teacher manage a range of learning environments both physical and virtual? How can leadership transform the previous versions of school into new, dynamic learning systems? To begin our exploration of these questions, we look at modern roles and responsibilities that should inform relevant pedagogy. In this chapter we do the following:

- Explore the nature of pedagogy by considering three classifications: antiquated, classical, and contemporary
- Consider the remarkable impact of global access, digital tools, and technology breakthroughs on learning and learners
- Declare new roles for contemporary learners and discuss the implications for educators and our institutions

## Meaningful Pedagogy to Inform Practice

A fundamental issue in modernizing our approach to teaching is to consider a meaningful pedagogy that informs practice. The roles of teacher and student and the relationship between the two are the heart of the learning experience and classroom life. Consciously or not, how teachers perceive their purpose will be the backdrop for all

the decisions that follow. If the “job” is to disseminate, then the teacher is a disseminator and the student a receptacle. If the “job” is to encourage innovation, then the teacher must delve into what motivates and reaches the hearts and minds of learners and create environments ripe for risk taking. The learner’s response is to take risks and create. Pedagogy results in actions.

The original pedagogues of ancient Greece sharply contrasted their roles and responsibilities from those of the subject teachers (*didaskalos*). According to Young (1987), pedagogues were slaves and frequently foreigners whom wealthy families would trust to mentor their sons by walking them through the streets, sitting with them in “classes,” and sharing meals. The pedagogues were devoted to their charges from age 7 through adolescence and were dedicated to teaching them what it takes to be a man.

This idea of nurturance has been sustained throughout history as an overlay to the teacher-student connection, in stark contrast to the notion of teacher as pedant, with the students as passive vessels taking in information. It is noteworthy that presently in Denmark the term “pedagogue” is actively used to describe early childhood educators. According to Matheson and Evans (2012),

The aim of a pedagogue’s work is to enable the children, young people and adults they work with to contribute to society in an active, responsible and constructive way. The focus on the whole person means that practicing pedagogues require a very broad understanding of the individual and their relationship to others and their community.

They also need a wide range of skills to support their role in caring, nurturing and learning. In Denmark, for example, trainee pedagogues study an array of areas that reflect what is valued in their culture.

- Educational theory (including psychology, anthropology, sociology, philosophy and health sciences)
- Danish language, culture and communication
- The individual and society
- Health, body and movement; expression, music and drama; or crafts, nature and technology
- Practice-based training
- Practice and theory in: children and young people; people with physical and learning disabilities; or people with social and behavioural difficulties
- Inter-professionalism (p. 4)

We find it noteworthy that the Danish approach examines education theory in disciplines related directly to the human condition, with a strong focus on the individual in a society and the need for communication skills. All areas of human endeavor are significant, whether academic, physical, or aesthetic, and these are connected directly to studying the implications for teaching individuals of great diversity and with special needs. We find the “inter-professionalism” tenet a critical and engaging phrase that points to the formal examination of modes of teaming and collaboration with other adults, educators, parents, and the learners. This teacher-preparation example underscores the belief that if roles are clear in a pedagogical commitment, then resulting programs will have equal clarity in actions.

Given the challenges it is timely to ask these questions: What roles will we assume as our learners are making significant shifts in the ways they learn? How will these shifts affect learning settings, and what are the teaching responsibilities aligned with those roles?

## Three Clusters of Pedagogy

The values of a culture have a direct impact on the values of an educative setting. Throughout history the opportunities and resources available or directed to educators shaped the conditions for learning. The zeitgeist of time and place—a society’s beliefs about what matters most—has governed the definitions of pedagogy. Classrooms with four walls, intended to hold a certain number of students and featuring a chalkboard at the front, dictated the types of relationships that might be possible between learner and teacher in the agricultural and industrial eras.

Clearly it is different now. Through global connectivity, a Skype session with an expert teacher on the other side of the world is just one example of shifting opportunities. When a question arises requiring a search for information, a student searches the Internet, opening up hundreds of sources. In creating a video documentary project for review or commentary, the use of social media expands the sources of feedback. The “classroom” is a web page that Johnny can peruse late at night to review a lesson using Khan Academy videos as much as it is Room 206 in Wheaton Middle School. Multiple platforms and portals are now available, explicitly changing the actual and possible roles for all of us engaged in the formal educative process. We need new pedagogy for a new time.

To help clarify the discussion, we propose three overarching pedagogical clusters, which we label as *antiquated*, *classical*, and *contemporary*. In her book *Curriculum 21: Essential Education for a Changing World* (Jacobs, 2010), Heidi raised three

questions regarding curriculum decisions: *What do we cut? What do we keep? What do we create?* Each question corresponds to one of the pedagogical clusters and can assist in an examination of them.

## **Antiquated pedagogy: What do we cut?**

*Antiquated pedagogy* refers to dated approaches to teaching and learning that are not designed to engage the learner—the teacher as pedant expounding knowledge in a space shared with students. When the teacher spews information at students with no intent to engage them, the learner is not only passive but a passer-by. Students will bypass the content because there was never a real desire to bring them into the study. The underlying belief system suggests that the role of the student is to simply be in a room absorbing information, whether the material is relevant or not and whether it is designed to be engaging or not.

Sometimes we confuse the nature of the classroom space with the notion of antiquation. The stereotype is that the large lecture hall is notoriously boring and unengaging, and yet many of us can recall being enthralled by a teacher’s presentation. In fact, the design of a lecture hall is based on the ancient Greek notion of the amphitheater as a structure to focus the group—the point being that antiquated approaches can appear in a boring, low-level online course as much as in a vapid, older-style classroom.

A description often associated with antiquated instruction is “the teacher covered the lesson,” as opposed to “discovered” or “uncovered.” The description suggests no intention directed at the learners; their role is to be a receptacle. As Paulo Freire wrote in *Pedagogy of the Oppressed*, the traditional antiquated approach is a “banking model” because it treats the student as an empty vessel to be filled: “Education thus becomes an act of depositing, in which the students are the depositories and the teacher is the depositor. Instead of communicating, the teacher issues communiqués and makes deposits which the students patiently receive, memorize, and repeat” (1970, p. 72).

The antiquated approach is explicitly out of date, irrelevant, and a precise response to the question *What do we cut?* The following are descriptions of roles for the learner that we would identify as antiquated:

- Learner as receptacle
- Learner as placeholder
- Learner as robot
- Learner as obedient receiver

- Learner as follower
- Learner as nonentity

These roles should not be confused with classical pedagogical approaches, which have place and purpose in our teaching.

## Classical pedagogy: What do we keep?

*Classical pedagogy* responds to the question What do we keep? To be classical is to be both timely and timeless. When we consider meaningful traditions and practices in our education as teachers, we would do well to highlight what we want to keep. Classical definitions of pedagogy point to the fusion of the ancient Greek notions we mentioned earlier of the pedagogue, or *paidagōgos*, the slave who looked after his master’s son (from *pais*, “boy,” and *agōgos*, “leader”) with the discipline specialist or teacher. This role includes being a guide to cultivating knowledge based on the training and readiness of the “nurturer.” Arguably these roles are continually fused in today’s classically trained teachers. Such teachers are sensitive and adept at communicating effectively with the individual and the groups of students in their care. They are skillful in making instructional decisions related to pacing of presentations, knowing how to sequence material, determining when to encourage the student to work independently, grouping learners to match the task whether in pairs or small groups, creating dynamic ways to engage a large group, using analogies, and making use of the learning spaces available. Classical pedagogies support and help students to become more confident, self-directed learners.

Examining a few examples of classical approaches clarifies their timeliness. Consider the Reggio Emilia approach to learning, which originated in Italy after World War II and now has adherents worldwide. The founder, Loris Malaguzzi, working with teachers and community members in the villages in the area of Reggio Emilia, developed an approach that would create “amiable schools” and support productive and useful lives deliberately integrated thoughtfully with family and community. In *The Hundred Languages of Children*, Malaguzzi elaborates:

[W]e know it is essential to focus on children and be child centered, but we do not feel it is enough. We also consider teachers and families as central to the education of children. We therefore choose to place all three components at the center of our interest. Our goal is to build an amiable school, where children, teachers, and families feel at home. (Edwards, Gandini, & Forman, 1998, p. 64)

In the last hundred years, we have seen a steady effort to develop instructional strategies that stimulate creative and critical thinking in our learners. To this day we see the influence of research by Paul Torrance (1970) from the University of Georgia on creativity. The following criteria, which he used to define creative behaviors in children and adolescents, continue to shape our understanding and principles of teaching:

- Fluency, the production of a large number of ideas
- Originality, unusualness, or uniqueness of ideas
- Abstractness of titles, verbally synthesizing elaborated drawings
- Resistance to quick closure, maintaining an openness to new information and ideas permits the emergence of original solutions
- Colorfulness of imagery
- Humor in titles, captions, and drawings (p. 358)

Certainly models and approaches developed through the early 21st century to promote critical thinking are considered classical and timely, informing our current discussions on teaching for innovation. Educators commonly accept the notion that we must support higher-level thinking, critical analysis, and synthesis. For example, the work of David Perkins and Howard Gardner through Harvard’s Project Zero and their productive team have had a profound effect on instruction for decades, with groundbreaking research on cultivating critical thought in everyone from our youngest learners through adults. Certainly Robert Ennis’s work at the University of Illinois on the nature of reasoning and on the actual design of reasoning tasks is built into the fabric of curriculum planning (Ennis, 2001, 44–46). Just as the cognitive aspect of critical thinking is a classical and respected pillar of program planning, so, too, is the complementary element of social and affective development. Art Costa and Bena Kallick’s *Habits of Mind* continue to be a mainstay in our classrooms. They identified 16 habits (<http://www.artcostacentre.com/html/habits.htm>) that remain timely, if not more essential than ever, whether a child is developing the habit of *responding with wonderment and awe* or the habit of *taking responsible risks*.

The relationship among the cognitive, the affective, and the physical is articulated in a well-known classical phrase, “education of the whole child,” which is basic to our field. Can we imagine discussing the education of “part of the child”? In short, every educator can identify key thought leaders and models reflecting the timeless and timely notion that classical pedagogy must be prized, preserved, and sustained in planning for the modern learner.

To clarify the difference between antiquated and classical roles for students, the following is a list of possible classical roles:

- Learner as critical thinker
- Learner as collaborative team member
- Learner as project-based planner
- Learner as creative thinker
- Learner as researcher
- Learner as knowledge organizer

These skills and many others are of continuing value. We don't want to lose them because of "technology"; rather, we hope to sustain them. Yet the tools we have available to us now as educators have changed learning dramatically. What are new roles and responsibilities that have evolved from the classical? What is this new pedagogy?

## **Contemporary pedagogy: What do we create?**

*Contemporary pedagogy* responds to the question What do we create? The word "contemporary" is appropriate for the purpose of developing a refreshed look at pedagogy because its definitions, "belonging to the present time" or "characteristic of the present time," imply that contemporary pedagogy will always be evolving. Without formal deliberation, the roles and the relationship between teacher and student were being launched in new directions in the last century, taking a sharp trajectory into our present century.

The timeline in Figure 1.1 highlights particular technological inventions that have had a direct impact on teaching, learning, curriculum, assessment, and school institutions. The cumulative impact has been so seismic that the word "shift" seems inevitable. Indeed, the effect of these developments on education is nothing short of breathtaking, and we are all still trying to figure out the implications for our field of practice. With the anytime/anywhere search capabilities of Internet browsers and the availability of digital media and tools for sharing power, the notion of classroom walls has been disrupted. The implications for a deliberate pedagogical shift in roles and responsibilities are glaring, yet the system holds fast to past models. If we educators think in terms of an individual child in our care at any age from toddler to grad student—be it Sara, Keisha, Dan, José, Abdul, Raymond, or Rosie—the choices become immediate and real. How do we prepare our learners for right now and into the future?

## Figure 1.1 | Timeline of Key Technology Developments in Education

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**1950**—Univac 1101 was the first computer developed and released by the U.S. government with the ability to store and run a program from memory. The implication for education was immediately evident, given the storage capacity.

**1967**—Logo was developed by Seymour Papert and others as a programming language focused on student learning and gained widespread use.

**1980**—Namco released Pac-Man in Japan, and it immediately became a worldwide sensation as electronic gaming transcended language and acquired mass appeal.

**1989**—The World Wide Web was invented by Tim Berners-Lee about 20 years after the first connection was established on the Internet. The impact on education was seismic, as knowledge sharing and building could be immediate and open to millions.

**1994**—Netscape, the first graphical web browser, forever changed what it means to “look up” information.

**1994**—BellSouth released what was technically the first smartphone, the Simon (Simon Personal Communicator), which combined cell phone capability with the ability to send and receive e-mail messages.

**2003**—Skype was released by two of its creators, Janus Friis from Denmark and Niklas Zennstrom from Sweden, to simultaneously communicate live webcam images and point-to-point voice calls between individuals globally. They connected with Ahti Heinla, Priit Kasesalu, and Jaan Tallinn, the cocreators in Estonia, where the majority of the company is still based. Certainly telephones had made immediate communication a staple in modern life, but now the ability to see an individual made the connection palpable and more powerful.

**2006**—Sal Khan initiated the Khan Academy, providing an array of videos on many subjects, giving teachers the opportunity to provide direct instruction to learners 24/7 from their own website. Khan’s popularity helped make the “flipped classroom” a reality.

**2010**—Apple released the iPad, which revolutionized computing by using touch access to share information, employ applications, and mimic the effectiveness of the laptop. Perhaps one of the most powerful effects of the tablet has been on very young children, who no longer need keyboard access and facility with the alphabet to participate in digital learning.

We have continually developed technology that allows us to function more effectively. On the other hand, a reluctance to change established behaviors and work habits is understandable. Leaders in our institutions can pave the way for the transition. Consider the three priorities suggested by Derek Bok, past president of Harvard, for improving that institution’s approach to pedagogy. He encouraged his colleagues to deliberately shift their practice to maintain the best of the classical approaches while adapting and employing contemporary possibilities:

- Faculty members should lecture less and experiment with new, more active methods of instruction.
- The faculty should participate in developing reliable methods of assessing student progress to determine which forms of instruction are most effective in helping students learn.
- Departments need to help restructure graduate education to acquaint future faculty with what is becoming known about how students learn, what methods of instruction are most successful, and how technology can be used to engage student interest and help them progress. (Hauser & Hauser, 2011)

Bok points to taking a deeper look at both classical and contemporary approaches to instruction and how to engage the modern student. We need such calls to action.

## **Drawing from classical roles to establish contemporary approaches**

In the classical approach to determining the roles of teacher and learner, the issue of control is central, and the teacher is in command, whether providing direct instruction or providing students with choices and options. The teacher is the director of learning experiences and dictates the curriculum material, the pace, the sequence, and the grouping of students. The teacher chooses the types of activity that the students will engage in, whether small-group discussion, large-group lecture response, individual seat tasks, or a walk on the playground. Thus, the student has the role of follower and the responsibility to comply with the teacher's directives. Even when a student is encouraged to work on an "independent project," it is because the teacher has supported this effort.

Certain aspects of the classical model can inform our present work, but we believe that we need language to clarify new approaches. There are certainly established classical approaches to learner-centered instruction focused on individualized instruction and differentiation, where making adjustments to student needs is a critical part of the planning process. Added to the mix more recently is personalized learning, which we see as a critical consideration for new pedagogical practice. We explore the possibilities and natural place of personalized learning in modern curriculum and instruction in Chapter 3.

## **Contemporary Roles**

In the contemporary learning environment, we propose five roles for learner and teacher—self-navigator, social contractor, media critic and media maker, innovative

designer, and globally connected citizen—with corresponding responsibilities. The roles are not presented in a hierarchy, nor do they constitute an exclusive list. Rather, we present them as a starting point to provoke discussion by educators to develop the capacities necessary for the design of meaningful and timely learning experiences.

## Learner as self-navigator

Self-directed learning is not a new concept, but the places for navigating have changed dramatically. Learning settings are no longer confined to a physical building but are, in fact, available 24 hours a day, virtually. By choosing a website, a game, the preferred pace, the individuals with whom they will create a project, students choose their own curriculum and learning experiences. In this regard, the new learner takes on the role of self-teacher—and with it, the need to be mindful and make deliberately informed decisions about next steps on a learning pathway. This interplay between the roles of teacher and learner is evident for any educator. In order to teach, we dive into learning about the ideas we wish to share with our students.

In contemporary pedagogy, becoming a new kind of teacher suggests the need to be and to model being a *professional learner*. Professionalism suggests experience, command of technique, and excellence in a field of practice. With extensive experience in the study of how people learn, the development of techniques and strategies to support learning, and acknowledgment of learning achievement, educators are poised to model what it is to be consummate learners. Being both teacher and learner is critical to self-navigation.

Alan November poses a provocative question in the title of his book *Who Owns the Learning? Preparing Students for Success in the Digital Age* (2012). When students are at the steering wheel and have direct input on the pathway, they do, indeed, own the learning. But what if the path that is chosen is potentially frivolous and of limited value? When do we step in? For answers, let us consider the power of the metaphor.

Self-navigation relates to guiding oneself at sea. No doubt, sea captains learn a great deal from their travels that will ultimately inform their next journey. A learner's launch from port out onto the Internet sea provides an opportunity for a new kind of coaching by a classroom teacher. Successful navigators have a compass and know how to read the signs from weather, birds, and water conditions; they have a context for the voyage. Thus teachers must prepare students for their web-based choices, social media, and the situations they might encounter. In short, students need us.

Researchers have studied the concept of self-directed learning, and the findings are revealing, though they tend to be focused on the student in a classical classroom venue. In a fascinating study by Gureckis and Markant (2012), the researchers note that in self-directed learning, there is a distinct difference between choosing to absorb information that comes from an external environment with limited control by the individual in matters such as timing and sequence of material—an inherently passive experience—and engaging with self-selected websites, information probes, and critical questioning of sources, which is an inherently active experience. Their work investigates the interplay between cognitive and machine-based self-directed learning with the research indicating that students are not consistently effective as decision-makers because of the human tendency to seek confirmation of personal bias. The researchers state:

Given that people are not always optimal self-directed learners, one promising avenue for future research is to use insight gained from the study of active information sampling (in both human[s] and machines) to develop assistive training methods. Instead of predicting what information people will choose on their own to solve a task, cognitive models can be used to determine what information would be most helpful to the individual (given the nature of the task and measures of prior learning). (2012, p. 13)

Gureckis and Markant recommend continued study of what constitutes high-quality self-directed decision making in a range of contexts and situations—an effort that could lead to potentially new cognitive models. In short, new kinds of teaching will be about helping students become more effective self-navigators in active modes of inquiry. It is logical to conclude from their study that self-directed learning is meaningful when students are directly taught self-management strategies and the ability to reflect upon and to ascertain consequences from decisions they make.

In so many ways, coaching comes to mind as we look at our responsibilities as educators. Coaches prepare learners for independence on the playing field or on the performance stage. What is different, though, is that the rehearsal, the drill, and the practice are part of a decision by the teacher about what will be performed or the schedule for sporting events. The role of the student as “player” of the sport or instrument has a long history, and the responsibilities are well honed. With Internet-based investigation, we are finding students launched into a vast new world without established game or performance rules. They need navigation coaches.

## Learner as social contractor

Given the seemingly limitless parameters for social networking—whether using instant messaging, Twitter, Facebook, or Instagram—our present-day learners can connect immediately with others throughout the world. In many ways, that contact is lightweight and easy. When we apply this connectivity to education, the word “contract” comes to mind because it suggests formal, meaningful commitments. The fact that social networking is possible does not make it always conducive to or supportive of inquiry or learning. In her book *The Pedagogy of Confidence*, Yvette Jackson (2011) notes that “the pinnacle experience for students is application of their strengths and interests through collaborative production and contributions” (p. 115). She goes on to state that networking platforms create possibilities to build confidence as the “use of technology becomes the epicenter for many adolescents.”

We argue that creating meaningful, secure, and productive social contracts is learned behavior. Teachers can model negotiation in the shaping of agreements to empower learners in selecting partnerships for learning. Teachers need to contract with learners as collaborators. Of particular interest is working with our students to find relevant and potentially expansive points of view when contracting the support of others for research. In Chapter 3 we describe a model for creating contemporary curriculum quests to engage learners in research and development of relevant and timely issues and problems that spark fascination. Our colleague Silvia Tolisano, for example, used social networking tools to connect her 5th grade students at the Gottlieb School in Jacksonville, Florida, with zoologists and veterinarians’ researchers. The class had found an animal skeleton on the grounds of the school, and Silvia thought it was a great opportunity to use social media so her class could work as a team with professionals (see Figure 1.2). By posting various digital photographs, asking and responding to questions, and using deductive reasoning, it was determined that the students had found the skeleton of a possum. They were being contemporary scientists, working with a network of professionals.

We see this as an excellent example of how to help students determine whom to contact and how to contact them. Silvia exemplifies how teacher and student can become co-investigators in a study and negotiate a collaborative learning contract. Questions regarding safe, ethical, and efficient environments are a natural and important part of preparation for creating successful networks. The developmental stage and age of learners are critical variables to that end. We can deepen the investigative talents of our learners by helping them gain independence in determining what makes

a good source in an inquiry both virtually and in a physical setting. We elaborate in Chapter 3 when we discuss designing contemporary curriculum and assessment.

**Figure 1.2** | Example of Social Networking Supporting the “Learner as Social Contractor”



Source: Image © 2009 by Silvia Tolisano, retrieved 7/20/2016 from <https://twitter.com/langwitches/status/642794880616562688>. Used with permission.

## Learner as media critic and media maker

Arguably there is universal agreement that classical literacy is a significant goal in education. By classical, we mean traditional reading of print materials, aural understanding, and written communication. Literacy can be viewed as two sides of the same coin: receptive literacy and generative literacy. Receptive literacy is the ability to make meaning through reading and listening; generative literacy is the capacity to create meaning through writing and speaking.

Applying these two notions to a range of media suggests ample opportunities to support the contemporary learner. A modern learner needs to be supported in cultivating sophistication and know-how to be media literate in every format because we are bombarded with information from multiple media, including television, film, and digital sources. Our concern is that intense and widespread exposure to numerous forms of media does not constitute literacy. For example, distinguishing the difference between mediocre and excellent television programs is akin to doing the same with literature. Our students need our assistance. As Frank W. Baker (2014) notes,

I maintain that while our students may be media savvy, most are not media literate. They tend to believe everything they see, read, and hear. Healthy skepticism does not exist, while media illiteracy is rampant. Their K–12 instruction has not provided them with the necessary critical-thinking tools to see through spin, recognize biased reporting, or understand infographics, just to name a few. (p. 5)

New media literacy applies directly to students' ability to access information and the ease with which they can do so. Simply consider that many students (and adults) conduct an Internet search to find information and select the first item that pops up on the screen. This behavior is habituated, not mindful. Preparing learners to be critics of online sources and instructing them in how to read a website are central to cultivating self-navigation.

Although the study of great works of literature is fundamental in most schools and is an integral feature of formal education, the curriculum has not generally included regular and dedicated attention to the formal study of modern media. We believe that it is necessary to support serious study of film and television for several reasons. As previously noted, students receive a constant flow of information from these sources and do not necessarily critique them, because they have not studied them. Without formal study of television and film, the likelihood of creating high-quality personal presentations through visual mediums is lessened.

We believe that if learners hold this new role of media critic and media maker, then the curriculum should provide them with opportunities to create films, podcasts, websites, and other products in a knowledgeable, technically proficient, and aesthetically pleasing way. With the plethora of media-making tools ranging from Animoto, ScreenFlow, Glogster, iMovie, and Blendspace, it is relatively easy to create media. Again, what is most critical is that the outcome reflect quality.

## **Learner as innovative designer**

Is there any question that the future will require innovative solutions, thus innovative individuals? The ability to generate fresh ideas, think boldly, and invent creatively requires a learning culture that supports generative and playful thinking, fluid collaboration, and design opportunities. Writing in *Forbes*, Henry Doss (2013) notes how the Renaissance-era curriculum exemplified such attributes:

Rather than an overt, outcome-oriented curriculum aimed at producing “workers,” the Renaissance curriculum developed—for lack of a better

term—sensibility. It was based on the notion of developing the intellect for substantial expression and it helped to fuel “big thinking”—the food of innovation.

The supposition in this role of innovative designer is that learners have a natural inclination to playfully engage in investigating possibilities that have a broad scope. Too often, however, the role of student as problem solver can play out to be immediate and short term. This is not to say that those types of learning experiences do not have value; rather, what Doss suggests is that we need to provide opportunities for students to think on a larger scale. We can actively encourage learners to seek new situations for invention and to study the efforts of others who seek possibilities outside the box. It is tempting to succumb to the belief that a controlled problem-solving experience is a substitute for a genuinely larger enterprise that values brainstorming and experimentation. As Tony Wagner asks in *Creating Innovators* (2012), “Are we prepared to not merely tolerate but to welcome and celebrate the kinds of questioning, disruption, and even disobedience that come with innovation?” (p. 242).

We purposely selected the word “designer” for this contemporary role, coupling it with innovation. Within the last few years, a key area in education has been the field of design. Whether in architecture, engineering, or the arts, there is a playful and creative approach to “design thinking” that can serve educators as they consider their roles. We submit that the word “design” connotes artistic compositional choices made to find a creative solution to a real-world situation, often with economic impact. We feature the notion of design prominently in Chapter 3 in our discussion of the design of contemporary curriculum quests as a way to engage students in inquiry into timely and relevant contemporary issues and problems. We take this idea of design to an institutional level in Chapter 4 in our discussion of how to transition “old school” program models into refreshed, new learning environments.

An informative example is the reasoning behind naming a leading higher education institution the “Rhode Island School of Design” rather than the “Rhode Island School of the Arts.” According to the college website,

RISD (pronounced “Riz-dee”) was founded during the 19th-century Industrial Revolution, when the textiles and jewelry manufacturing industries were beginning to take off in Providence. Since it was established in part to “apply the principles of Art to the requirements of trade and manufacture,” the prescient founders chose to incorporate the word “design” into the name of the school as a means of signaling its importance to economic development. But they also clearly stipulated that their educational experiment aimed both to teach students “the practice of Art, in order that they may understand its

principles, give instruction to others, or become artists” and to educate the general public about the intrinsic value of the arts to society.

Design is based on approaches to the composition of a solution. Whether designing a building, creating a painting, or devising an engineering solution to the problem of potholes in neighborhood streets, sketching out possibilities is at the core of the process. Design thinking requires open and playful consideration of possibilities and the manipulation of key elements before the final delivery of a carefully structured response. The “elements” are unique to the arena for application. For example, an architect creating a blueprint considers elements such as style, proportion, and materials. A music composer works with the elements of harmony, melodic line, rhythm, and various instruments. A filmmaker considers characters, plot, setting, editing, special effects, and camera angles when crafting a film narrative. Computer programmers review platforms, images, functions, budget, and audience when determining coding for an application. Curriculum designers shape learning opportunities regarding content, skills, proficiencies, and assessment products.

The contemporary learner needs to be steeped in the possibilities for innovation when putting together design elements to generate solutions. Thus, rather than marching through strict sequences for “following directions,” the creative designer fully appreciates that the end result will need to be a thoughtfully rendered solution; but getting to that point requires out-of-the-box, imaginative play. If our learners are to become innovative designers, then a ripple effect is set into motion. Teachers must follow suit, and we explore the implications for the new role of the teacher in regard to design thinking in Chapters 2 and 3.

## **Learner as globally connected citizen**

Viewing students as part of the larger world is not a new idea. However, the digital reach that enables immediate access to the world *is* new—and strikingly personal, given the possibility of real-time video conversations between classrooms. Becoming an active and engaged citizen suggests being responsible and informed on a global scale, with an understanding of concerns and issues that transcend borders and are as basic as the economy, political interactions, climate, and resources. In a report based on a project sponsored by the Council of Chief State School Officers and the Asia Society, authors Tony Jackson and Veronica Boix Mansilla (2011) define “global competence” as “the capacity and disposition to understand and act on issues of global significance.” The project team ultimately translated this general notion into

the cultivation of four global competencies that support new pedagogy. Specifically, learners can and will do the following:

1. Investigate the world beyond their immediate environment, framing significant problems and conducting well-crafted and age-appropriate research.
2. Recognize perspectives, others' and their own, articulating and explaining such perspectives thoughtfully and respectfully.
3. Communicate ideas effectively with diverse audiences, bridging geographic, linguistic, ideological, and cultural barriers.
4. Take action to improve conditions, viewing themselves as players in the world and participating reflectively. (p. 11)

The development of these capacities is now possible on an unprecedented level as learners gain the ability to conduct online research, engage in point-to-point communication using Skype or Google Hangout, and see satellite views via Google Earth. We can help them become responsible and respectful global citizens as they develop the four competencies, leading to meaningful action and contributions. Most global issues can be localized—and learning about the world can start in our own backyard.

The need for a global classroom is crucial to each learner, according to Homa Tavangar (2014), who emphasizes the need for “meaningful connections with the larger world.” Her vast experience as a global educator points to the effectiveness of a distinctively personal approach to supporting her notion of a “global citizen” as “a friend to the whole human race.” Teachers can build learners’ compassion and perspective by beginning with the idea of *friendship*. Homa has worked throughout the world and notes that friendship is a universal condition across all locations, ethnicities, economic backgrounds, and belief systems; and when she asks the question “What makes a good friend?” respondents mention “*loyalty* and *respect* first, and almost as an afterthought, someone inserts *fun*” (p. 71). When students consider their peers and then examine the conditions in which people live on our planet, they open up to new learning and gain global awareness. Making personal connections creates empathy and understanding. Some of these connections can prove energizing and immediate, such as a global folktale study that links two 3rd grade classes in Des Moines, Iowa, and Mumbai, India. Others may be disturbing, such as reading an article on the Newsela website about young girls in some countries who are told they cannot learn to read or go to school. No matter what the topic, the human element is essential to cultivating the four global competencies.

## What New Roles for Learners Mean for Teachers and Schools

The implication for these new roles is a pedagogical shift in the teacher’s responsibilities and approaches to assisting students. The chart in Figure 1.3 can help frame and focus discussions regarding a comparative view of pedagogy. In contemporary pedagogy there is a notable shift. The teacher is also a learner and the students can be learners and teachers simultaneously.

**Figure 1.3** | A Comparison of Three Pedagogies:  
Antiquated, Classical, and Contemporary

<b>Antiquated</b>	<b>Classical</b>	<b>Contemporary</b>
Learning experiences entirely within classroom	Classroom in school and other places	Learning within a range of physical and virtual environments
Linear delivery in class	Delivery in a range of settings	Nonlinear learning
Set formats and structure	Limited flexibility in structure	Fluid and flexible scheduling structures
Strict, specific roles for students and teachers	Interactive yet specific roles for students and teachers	Fluid roles for students and teachers as they interact as both teachers and learners.
Restricted communication tools	Limited communication tools	Open-access communication tools
Rigid, set curriculum	Established curriculum with some flexibility	Responsive curriculum both ongoing and personalized

If students are to be self-navigators, then we must learn to navigate as well and assist them in plotting their course. We become a compass. If students are to be social contractors, then we must become something like legal, business, and social network advisors. We need to help them devise the best terms for a fruitful contract and find the most promising partners. If students are to be media critics, then we need to work with them to create rubrics that will help them identify the characteristics of valid and trustworthy content from a range of media sources. If they are to become media makers, then we must become producers of our own videos and podcasts. Our

laptops and tablets can become media-making headquarters, the equivalent of the Paramount film lot. If students are to be innovative designers, then we need to be on the design team, suggesting alternative approaches and providing feedback on possible design solutions. If our learners are to be globally connected world citizens, then we need to be ambassadors and provide passports and guidance as they investigate new perspectives.

All these new roles for students mean that we, the teachers, are learning with them. We need to be self-navigating, social-contracting, media-savvy, innovatively designing, globally connected teachers. At the same time, teachers obviously don't work in a vacuum. What are the implications, then, for schools as institutions? Might they strive to become self-navigating, social-contracting, media-savvy, innovative, and globally connected institutions?

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