Chapter 1

Making the Case for Personalized Learning

> I'm constantly going through the motions down a path that has been chosen for me by others. When is it going to be my turn?
>
> —Grade 7 student

From a typical student's point of view, schooling is a series of required experiences. Students move from one topic to another, one classroom to another, one grade to another as part of a larger design to accomplish … what, exactly? As educators, we typically spend most of our time focusing on what is covered and how it is delivered. We, and the systems that guide us, tend to reduce and compartmentalize learning into a linear, step-by-step process. We break standards or topics down into small parts and hope that if we simply move through the components of our design, students will master the material. The result? Students experience sanitized assignments designed more for efficiency than for deep learning. Students move through the pacing guide we establish for them, despite the reality that different people learn at different rates and in different ways. They grow accustomed to their role as compliant, "direction-following" learners who arrive at a predictable response rather than confront messy problems fraught with ambiguity, complexity, and unknown answers. Rather than simply moving through school as consumers of a lockstep system of lessons, units, courses, and grades, *every* student needs to be invested in his learning—to see school and learning as a way of acting on his interests and passions.

DISCONNECT BETWEEN TRADITIONAL SCHOOL AND PREPARATION FOR A POSTSECONDARY WORLD

There is a disconnect between the traditional school model and the challenges and opportunities of today's world. How do we reconceptualize *learning* to move beyond passive student roles of recording and recalling, because the world beyond the school walls demands adaptive, creative problem solvers? How do we reconceptualize *teaching* to move beyond a "sage on the stage" mentality, because knowledge is no longer scarce? Heidi Hayes Jacobs frames the problem this way in her book, *Leading the New Literacies*: "Breaking through the barriers of a 19th century schedule with a 20th century curriculum designed for 21st century learners will be inherently uncomfortable. Just because we are used to something does not mean we should be comfortable with it. Education is disruptive" (5). We can reconceptualize learning if we move from a compliance-oriented structure to a passion-filled learning structure; if learners are intrinsically committed to a given topic, problem, or profession, *they will learn*. Many educators talk about the bigger picture, but they do it in the language of "someday" rather than "right now." Students deserve clarity on the long-term aims of school—*Why do I have to do this?*—and *how* those aims are connected to challenges in the world. When we defer their dreams to a couple of years down the road, most students (and adults) struggle to stay engaged. We have a structural design problem that can be ameliorated by empowering ourselves and our students to navigate problems, discern truth, create texts, contribute knowledge, and become invested in community and global problems. We can do this by

- Designing customized learning experiences around what learner(s) are fascinated by, rather than marching through predetermined topics and texts
- Creating a collaborative classroom and school culture where students *own* the learning process because they set a goal, do the work, seek out feedback, improve their performance, and document their accomplishments
- Breaking down traditional classroom walls to connect learners to experts and audiences far beyond the schoolhouse door
- Increasing our focus on contemporary literacies (digital, media, and global) and ways to work (social production, social networks, media grids, semantic web, nonlinear learning), integrating them into our design and instructional practices
- Persisting when obstacles interfere with progress and providing additional time to produce quality work

THE POWER OF A STUDENT-DRIVEN MODEL

We propose the following as a definition of personalized learning:

Personalized learning is a progressively student-driven model in which students deeply engage in meaningful, authentic, and rigorous challenges to demonstrate desired outcomes.

Our major premise is twofold, and it guides the structure of this book: personalized learning is a better way to attain current learning outcomes, and personalized learning is a better way to grow children.

Personalized learning is a better way to attain current learning outcomes. We're well aware that teachers and schools are surrounded by a host of expectations focused on attaining content. This is reality; we can't wish it away. We simply start with the premise that personalized learning is a sound and effective way to learn. Compared to the outdated approaches of transmission, retention, and recall, personalized learning allows for deeper, more lasting learning in an engaging and relevant environment. But personalization is not just a better mousetrap to achieve the same goals as past models of teaching and learning, nor is it simply a new delivery vehicle that achieves the same goals.

Personalized learning is a better way to grow children. We believe that education must strive to achieve more transformational outcomes *alongside* the achievement of existing or more traditional ones. We don't teach subjects—we teach children and young adults. Personalized learning is the best way we know to grow these people into the best versions of themselves, with all of the skills and mindsets needed to succeed and contribute to our shared future.

Personalized learning has deep roots in education. Susan Yonezawa, Larry McClure, and Makeba Jones trace the concept back to the 1700s, when Jean-Jacques Rousseau advocated for schools that "built on individual capacities and choices to capitalize on inherent motivations" (4). In the early 1900s, John Dewey "promoted the idea of building on students' interests and incorporating outside experiences to meet students' individual needs" (Yonezawa et al. 4). In 1919, inspired by the progressive ideology of John Dewey and Maria Montessori, Helen Parkhurst developed the Dalton Plan, a new model of schooling designed to tailor each student's program to her needs, interests, and abilities; to promote both independence and dependability; and to enhance the student's social skills and sense of responsibility toward others. She published *Education*

on the Dalton Plan to describe her idea to address significant structural and policy school challenges: "Not until school machinery is reorganized and the energies of the pupils released from the time-table and the class-tent will they begin to develop that initiative, resourcefulness, and concentration which are the indispensable preliminaries to the process of learning." This model became the basis of the Dalton School and was embraced by many Montessori schools around the world. In the 1980s, Theodore Sizer launched the Coalition of Essential Schools predicated on nine common principles: learn to use one's mind well; less is more, depth over coverage; goals apply to all students through personalization (creating smaller classrooms); student-as-worker, teacher-as-coach; demonstration of mastery through performance on real tasks; a tone of decency and trust; commitment to the entire school; resources dedicated to teaching and learning; and democracy and equity. In an issue of *Education Leadership* devoted to the theme of personalized learning, Sizer promotes his vision of a very different secondary education grounded in freedom and cooperation: "At its heart, 'personalization' implies a profoundly different way of defining formal education. What is here is not the delivery of standard instructional services. Rather, it is the insistent coaxing out of each child on his or her best terms of profoundly important intellectual habits and tools for enriching a democratic society, habits and tools that provide each individual with the substance and skills to survive well in a rapidly changing culture and economy … It can be done. It is being done, however against the traditional grain." As educators, we cannot design instructional experiences *regardless* of who the students are; they are vital and relevant to the creation process.

Personalized learning has become popularized of late for many reasons, most notably proliferation of technology to create shared networking platforms, a documented and pervasive lack of student engagement, significant changes in the global economy, an abundance of information, and an increased desire to care about something much larger than oneself. In 2010, a national symposium was hosted by the Software & Information Industry Association, ASCD, and CCSSO on "the need for the systemic redesign of our K–12 education system to one that is centered on the personalized learning needs of each student" (Wolf 5). Three assumptions were confirmed in the report (6):

- Today's industrial-age, assembly-line educational model—based on fixed time, place, curriculum, and pace—is insufficient in today's society and knowledge-based economy. Our education system must be fundamentally reengineered from a mass production, teaching model to a student-centered, customized learning model to address both the

diversity of students' backgrounds and needs as well as our higher expectations for all students.

- Educational equity is not simply about equal access and inputs, but ensuring that a student's educational path, curriculum, instruction, and schedule be personalized to meet her unique needs, inside and outside school. Educational equity meets each child where she is and helps her achieve her potential through a wide range of resources and strategies appropriate for her learning style, abilities, and interests, as well as her social, emotional, and physical situation.
- Personalized learning requires not only a shift in the design of schooling but also a leveraging of modern technologies. Personalization cannot take place at scale without technology. Personalized learning is enabled by smart e-learning systems, which help dynamically track and manage the learning needs of all students, and provide a platform to access myriad engaging learning content, resources and learning opportunities needed to meet each student's needs everywhere at anytime, but which are not all available within the four walls of the traditional classroom.

What remains timeless is meeting students where they are and growing their capacities in a way that is respectful and inclusive of their voices, aspirations, and interests. That also is why personalized learning is a bit amorphous—it sounds very similar to other delivery models that tailor or customize for the student.

See table 1.1 to compare personalized learning with other delivery models that you may be more familiar with: individualization and differentiation.

Individualization. The student is in charge of the *pacing* rather than the content or product. Students can replay videos, take practice problems or questions, and receive instant feedback on their work. Individualization typically uses technology to provide a self-paced instructional path for a given topic. Personalized learning, in contrast, requires students to take charge of not only the pace but also the nature of the challenge itself and the active direction they take. Engagement does not come from how quickly a student races through the material; it comes from how relevant, interesting, and worthy the topic is.

Differentiation. Differentiation requires teachers to tailor content, process, product, and/or the learning environment for individual students in the classroom to make it more likely that each student will succeed. Carol Tomlinson describes the hallmark of differentiated classrooms: "teachers begin where students are, not the front of a curriculum guide. They accept and build upon the premise that learners differ in

Table 1.1 Distinctions between Personalized Learning, Individualization, and Differentiation

Delivery Model	How Student Owns the Learning Experience	Teacher's Role	Illustrative Examples
Personalized Learning	Student actively pursues authentic, complex problems that inspire cocreation in the inquiry, analysis, and final product.	Teacher facilitates learning through questions, conferences, and feedback.	• Student develops and uses playlists (e.g., curation of texts, experiences) to inform. • Student leads teacher-parent conferences to evaluate performance and determine next steps. • Student moves through learning experiences at his own pace to demonstrate desired outcomes or competencies in ways designed by him.
Individualization	Student controls the pace of the topic as well as when to demonstrate mastery.	Teacher drives instruction through teacher-created tasks and related lesson plans.	• Teacher develops playlists. • Teacher assigns or student independently uses a digital tool to focus on fluency (e.g., Khan Academy). • Teacher assigns online independent study or intervention program (e.g., Dreambox or Compass Learning).

Table 1.1 (*continued*)

Delivery Model	How Student Owns the Learning Experience	Teacher's Role	Illustrative Examples
Differentiation	Student assesses and chooses instruction around content, process, product, and learning environment.	Teacher tailors instruction based on individual student need and preference	• Teacher creates literature circles around different texts but same theme. • Student develops a learning contract with the teacher. • Teacher develops choice board or menu to provide student choice.

important ways" (2). Personalized learning has students envision the investigation, idea, or challenge, and allows them to have a significant influence on the "what" and the "how." The larger aims of a given course or program are fixed, but the content of the exploration is shaped by the individual tasks.

Many secondary and postsecondary schools are designing *blended learning* experiences. The Clayton Christensen Institute for Disruptive Education ("Blended Learning Model Definitions") describes blended learning by referring to its three core attributes: "(1) at least in part through online learning, with some element of student control over time, place, path, and/or pace; (2) at least in part in a supervised brick-and-mortar location away from home; (3) and the modalities along each student's learning path within a course or subject are connected to provide an integrated learning experience." Typically, blended learning is implemented through a rotation model (regular combination of online learning, small-group teaching, and individual conferences); a flex model (individually customized to the student, where online learning is the primary delivery structure); an à la carte model (online courses that students can take to supplement a traditional course model); or an enriched virtual model (primarily an online learning model, where students appear infrequently on campus). Although blended learning can be a component of any of the three delivery models we've explored here, it does not, in itself, equal personalized learning. This is a classic example of confusing *ends* and *means*. Blended learning is a vehicle. It is an approach that can help us achieve

something. It can liberate us from using the classroom as a delivery platform and allow us to engage in other, deeper learning enterprises. But, by itself, blended learning is *not* personalized. In fact, it can be a delivery platform for very standardized "box sets" of learning content and assessments. This is true whether we're speaking of Khan Academy modules or the growing sources of massive open online courses (MOOCs). These are very standardized content packages delivered to a crowd of largely faceless consumers via the web. It is in *how* students and teachers use blended learning as a contributor to (and not synonymous with) a personalized learning approach that is important.

If blended learning allows us, in its simplest form, to remove a certain amount of content transmission and skills practice from the classroom, how can it change our face-to-face interaction to support personalized learning? This idea is much bigger than education technology products and platforms, which are marketed promising "customization." Although we agree that technology is a powerful tool to aid in the consumption and production of knowledge, it is not a substitute for the deep thinking, problem solving, and reflection that are at the heart of every powerful learning environment.

CONTEMPORARY ISSUES OF CONTROL

In the effort to improve student achievement, we have pushed the existing system of schools into hyperdrive, asking students and staff to work at a speed that negatively affects learning in the long run. Despite intentions to ensure that all learners can be successful, educators seem to be working harder than ever but accomplishing less, while students seem to be more disengaged than ever but longing for more. Peter Greene, self-proclaimed "grumpy old teacher trying to keep up the good classroom fight in the new age of reformy stuff," surmised: "Every educated person needs—and deserves—an education that is built around the student. Everything else must be open to discussion." The real issue centers around control: who sets the parameters (for example, inquiry, pace, process, product, quality) of the learning experience. Figure 1.1 offers a simple continuum: the far left side represents a teacher-directed, wholly

Figure 1.1 Who Controls the Experience?

prescribed learning experience; the far right side is a student-initiated and designed experience that is not bound by established standards and outcomes.

On one end of the personalized learning spectrum is the power of the student to shape the learning experience. Education journalist Valerie Strauss of the *Washington Post* featured Sam Levin, the founder of the Independent Project at a public high school in western Massachusetts where eight students experimented with full autonomy to design their school experience. Levin advocates for "a blank sheet that says curriculum at the top." Will Richardson pushes the conversation to be more in line with other institutions that have been revolutionized by the role of the consumer and citizen who demands responsiveness. In a blog post titled "'Our' Curriculum vs. 'Their' Curriculum," he rails against an "institutional curriculum [that] almost necessarily denies students agency over their own learning. And this is especially damaging when most kids now have the ability to create a personal curriculum around the things they truly care about learning out of the abundance of information, people, and tools they now have access to." On the other end of the personalized learning spectrum is the power of teacher-led instruction to deliver and assess content. In response to Richardson's blog post, Dan Meyer questions,

> A blank sheet of paper seems very much like "throwing all curriculum out." If you'd like to keep /some/ curriculum, I'm sure you've anticipated my next questions and maybe already written about them:
>
> 1. What curriculum should we keep?
> 2. Should /every/ student learn that curriculum?
> 3. How would you assess whether or not they learned it?
> 4. How are we not now in the realm of nationalized curriculum and assessment?

On his own blog post titled "Don't Personalize Learning," Meyer cites Benjamin Riley's argument that by giving control over to students to determine path and pace, that level of autonomy will lead to "large knowledge deficits" in many students, especially those that are at risk. According to Riley, "The only way to prevent this slow downward spiral for these students is to push them harder and faster. But they *need to be pushed,* which means we should not cede to them control of the pace of their learning." Riley concludes, "the problem is not the seating arrangement or lack of smartphones, it's the pedagogy." Daniel Willingham, an academic mentor of Riley, participated in another blog where he referred to his 2012 article, "Teaching to

What Students Have in Common," in which Willingham and David Daniel contend that every student must have factual (domain-specific) knowledge, practice (a focus on automaticity or immediate recall), and feedback from a knowledgeable source (to improve thinking or performance). "Pointing out cognitive needs (*must haves*) does not dictate pedagogical methods or lesson plans (*could dos*)—just as listing protein as essential to maintain health, for example, does not prescribe which protein-rich foods to prepare, much less specific recipes." The research clearly is much stronger in the area of the teacher-driven learning experience, but contemporary personalized learning is appealing to students and their families who want to have a curriculum that is designed or at the very least responsive to them, one that opens up space in the schedule, the topic, the audience, and the development of meaningful work.

What are we advocating for? *A balanced approach through which the teacher and student collaborate in the design of the learning experience*. Figure 1.2 indicates how personalized learning is situated between the two endpoints on the continuum.

As with many educational models, personalized learning exists along a continuum or as part of a spectrum of approaches, environments, and relationships. As is the case with most polarities, the ideal state lies somewhere in between. Neither end of the spectrum is really a desirable place to be. Our contention is that we must deal with a segment of the spectrum that challenges us to meet the needs of the future yet is still achievable. We must articulate a desired future state, focus on achieving it, and work backwards to plan to do so.

Personalized learning requires a series of pedagogical and policy shifts that are rooted in classic ideas, but with a modern twist. In 1922, Parkhurst proposed that the beacon lights of schooling should be making students "industrious, sincere, open-minded, and independent" through the establishment of student freedom and responsibility to tackle real problems. This nearly hundred-year-old sentiment has resonance today. Students develop capacities in setting goals, designing tasks, persevering through challenges, providing feedback and encouragement to others, and creating and using knowledge that go beyond the classroom walls. The teacher is more relevant than ever to build trusted relationships, demonstrate steadfast belief in students' potential competency,

Figure 1.2 Who Controls the Experience? Where We Are

provide timely and high-quality feedback, and approach new learning with a proactive and reflective attitude.

PERSONALIZED LEARNING EVOLUTION

In this section, we identify twelve elements in our Personalized Learning Evolution (see table 1.2) to advance the design of learning experiences that invite students to expand their ownership of what they learn, how they learn, and how they demonstrate learning. Before we unveil these elements, consider the following examples that illustrate the reason we are doing this in the first place and demonstrate the gray area between the extremes of a fully teacher-driven or student-driven environment.

- Imagine two kindergarten girls at work. They are extending an investigation the class did on buoyancy, testing new objects that visitors to the class website suggested to see whether each one will sink or float. They will make predictions, record findings, and post the results on the class website.
- Imagine a fourth-grade student at work. He carefully examines personal writing samples produced during the past four weeks to look for patterns of performance in relation to objectives that were mutually agreed on by the teacher and himself. This is in preparation for his student-led conference, in which he will present his goals, performance patterns, and selected artifacts and create consensus on next steps with conference participants (teacher, parent).
- Imagine a room of sixth graders at work. They are collaborating with another classroom at a school in Madrid to create a virtual art gallery to honor the work of Picasso. Currently, they are on a video call, where the students from Madrid are describing the emotions and ideas they experienced when they saw Picasso's paintings at the local museum that week. The students in both classrooms will continue to work together on both the creation of the pieces and critiques of one another's work.
- Imagine two groups of ninth graders at work. They are designing a solution in response to an IDEO (an innovation and design firm) challenge to make low-income urban areas safer for women and girls. One group focuses on how to make the pathways from school to local transit safer through the design of an inexpensive streetlight. Another group researches neighborhood policing, both locally and globally, to propose guidelines on how to look out for one another based on accepted cultural practices.

Table 1.2 Personalized Learning Evolution

	Elements	Minimal Student Input	Some Student Input	Student Driven
Chapter 2	**Disciplinary Outcomes** *What are the subject-specific goals of learning?*	Established standards dictate the content and skills to be learned.	Student has some choice to focus on particular topics, concepts, or skills within established standards.	Student determines the content and skills he or she wishes to learn within established standards.
	Cross-Disciplinary Outcomes *What learning goals cut across subject areas?*	Cross-disciplinary outcomes have been established.	Student has opportunities to develop based on explicit teaching and assessment.	Student identifies cross-disciplinary outcomes from a common set.
	Mindsets *What mindsets are necessary for success?*	Teacher creates a classroom culture that uses the four mindsets (relevance, growth mindset, self-efficacy, sense of belonging).	Teacher guides students to use the four mindsets to strengthen performance and development.	Student uses mindsets to work harder, engage in more productive behaviors, and persevere to overcome obstacles to success.
Chapter 3	**Task** *What is the challenge?*	Teacher, curriculum, or computer generates the problem, idea, design, or investigation.	Teacher guides definition and articulation of the problem, idea, design, or investigation.	Student independently defines and articulates the problem, idea, design, or investigation.
	Audience *Who is the audience? How does that shape communication?*	Teacher is primary audience for student product or performance.	Student has input into or choice of audience.	Student engages with authentic audience to demonstrate learning and to add value through contribution.

Table 1.2 (*continued*)

	Elements	Minimal Student Input	Some Student Input	Student Driven
Chapter 3 (continued)	**Feedback** *How is feedback provided, and how is it used?*	Teacher provides formal and informal feedback on the task to help student revise and refine the task.	Teacher and others (e.g., peers, experts in the field) provide feedback to help student revise and refine the task.	Student seeks and uses feedback from teacher and others to guide performance.
	Evaluation *How is performance evaluated on a given task?*	Teacher generates a score and provides explanation of performance.	Student rates performance based on given outcomes to inform teacher evaluation.	Student and teacher interpret evidence of achievement in relation to key outcomes and goals.
Chapter 5	**Process** *Who controls the sequence and pace of learning?*	Learning sequence and pace are specified by the curriculum, teacher, and/or resource.	Learning sequence and pace are specified but somewhat flexible based on student interest and need.	Learning sequence and pace are developed based on student interest and need and flexible based on assessment of progress.
	Environment *Where does the learning take place?*	There is a top-down environment in which teacher instructs and assesses disciplinary and cross-disciplinary outcomes.	The environment is more collaborative; teacher considers student voice and choice in the instruction and assessment of disciplinary and cross-disciplinary outcomes.	Teacher and student work together as learning partners to design and assess learning for disciplinary and cross-disciplinary outcomes.

(*continued*)

Table 1.2 (*continued*)

	Elements	Minimal Student Input	Some Student Input	Student Driven
Chapter 6	**Demonstration of Learning** *What constitutes evidence of learning?*	Teacher and district assessments specify the way(s) in which disciplinary and cross-disciplinary outcomes will be demonstrated.	Student chooses among a set of options to determine how disciplinary and cross-disciplinary outcomes will be demonstrated.	Student proposes or shapes way(s) that both disciplinary and cross-disciplinary outcomes will be demonstrated and will provide evidence of learning (e.g., personalized portfolio).
	Time *When can/does learning occur?*	Schooling is defined by "seat time"—prescribed number of school days (e.g., 180 days, Carnegie units)	Schooling is a more variable blend of time-based and outcome-based measures.	Schooling can take place 24/7, 365 days a year and be determined by outcome-based measures.
	Advancement *How does a student progress through the system?*	Student is advanced based on age, irrespective of achievement.	Promotion or retention at the end of the year is based on achievement in the course or grade level.	Advancement is based on demonstrated competency whenever that is achieved.

- Imagine a group of tenth graders at work. They are predicting how long the potable water supply will last for their town given the cost, population density, and existing water infrastructure (the age of treatment plants, the projected need for repair, and so on). Their local data are part of a larger project, with five other schools from around the world, to identify what government policies may need to change in response to water scarcity.

These scenarios can exist within current structural parameters (in terms of how we group students, organize courses, indicate mastery, and report progress) or innovative ones. For example, the tenth graders in the last example could be in an Algebra II

class; a multidisciplinary course that involves environmental science, public policy, and mathematics; or an independent project where students collaborate once a week for two hours. As educators, we sometimes get stuck in trying to change school structures (for example, block scheduling, competency-based systems, 1:1 technology) instead of focusing on change in instruction (for example, student-driven inquiry, progress monitoring, focus on revision for authentic audiences). In *Five Levers to Improve Student Learning,* Tony Frontier and James Rickabaugh contend that the key to education reform is doing the right work and making the right changes: "Education is littered with well-intended transactional solutions to problems that, in reality, require transformational changes in practice. Too often, the surface-level changes that were implemented resulted in neither improved organizational capacity nor improved student learning" (17).

There are four noteworthy points to provide context to the evolution:

1. There is a column to the left of Minimal Student Input that has intentionally been left off of the Personalized Learning Evolution chart. The descriptors in the Minimal Student Input column represent a traditionally hierarchical model, but a nonetheless effective professional practice. These descriptors represent good schools where the common expectation is that the job of a teacher is to design, develop, and deliver instruction and the job of a student is to receive and then recall or represent learning. In this column, the teacher is positioned in the active role, and the student is relegated to a passive role. To the left of this column (again, which does not exist) are descriptors of the absence of an element—for example, "Cross-disciplinary outcomes have not been identified" or "Feedback is only given in the form of a grade or on summative assessments." For many teachers and leaders, the aspiration is the achievement of the descriptors in the Minimal Student Input column. The power of the evolution is in describing how each element becomes more personalized so that you can use the tool to reflect on where you are, where you want to be, and how you intend to grow there.

2. We are *not* advocating that the goal is always to be in the Student Driven column for every element. (Many innovative or democratic schools would struggle to classify themselves this way.) We are suggesting, however, that educators ask themselves the question "How can we create and sustain an environment where students believe they have a substantive role in the development of their own learning?" Yes, there are times when minimal student input has a role, but if we live only in this column, how are students going to be self-driven, independent learners outside school? There must be a better balance in how we design school if we are serious about ensuring that students

are truly prepared for college, careers, and global citizenship. As you start looking at the Some Student Input descriptors, are you seeing missed opportunities to grow student-teacher partnerships?

3. Personalized learning shifts the role of the teacher but in no way makes the teacher an "endangered species." Diane facilitated a Connecticut task force charged with creating a policy paper to support and encourage personalized learning (PL) in school districts across the state (Connecticut Association of Public School Superintendents). In the paper, the authors described six essential roles that teachers play in a PL model (3) (references in brackets are connected to the twelve elements in Table 2.1):

- *Curriculum planner:* What is essential for students to learn? [1, 2]
- *Classroom facilitator and coach:* How can I structure learning so that students can explore interests, pose questions, and discover their own answers? [1, 2, 3, 8, 9]
- *Assessor:* How do I collect evidence of learning as an ongoing process? [4, 6, 7, 10, 12]
- *Advisor:* How do I ensure that students are on track in relation to the goals? [1, 2, 7, 10, 12]
- *Communicator:* How do I ensure that students have clarity about their progress as learners? [3, 6, 8, 12]
- *Connector:* How can I use my professional network to create opportunities for students? [4, 5, 6, 11]

The underlying theme among the six roles is the vision of a learning partnership between teacher and student where both play an active role in the design and development of the experience.

4. There may be a huge "Yes, but" in your head after reading the descriptions of the twelve elements and anticipating what they ask of you. In a profession where burnout is rampant, where teachers feel as though their opinions don't count (Hargreaves and Fullan 2012), this is not only one more change but an adaptive, messy change that requires considerable investment of time, effort, and resources. Many educators are resigned about what schooling has to be because they cannot see it for what it is: a set of habits that feel permanent but do not have permanence. We were not predestined for a system of Carnegie units, standardized tests, and grade-level expectations. For just a little while, turn your back on your certainty and instead make space for the possibility that there must be a better way to "do" school, a way that requires—but also creates—tremendous energy.

CONCLUSION AND REFLECTIVE QUESTIONS

Most educators, parents, community leaders, and students are deeply concerned with what schooling has become. Although many insist that the "one-size-fits-all" model is ineffective, there is limited consensus on what school can be. In this book, we have made a conscious effort not to delineate how schools are failing our children, but rather to focus on a reimagined vision of schooling based on timeless and contemporary elements. Every educator can pursue a learning partnership with students to develop tasks around problems, challenges, texts, and ideas that are both meaningful to the student and aligned with expected outcomes. Students become entrusted with greater responsibility and freedom in shaping the "what" and the "how" of learning. Yet this is a balanced approach, shaped by the needs of the school community, by local and state/ministry policy, and by collective conversations about contemporary schooling. In chapters 2 through 6, we will explore each element of the Personalized Learning Evolution—describe what it is, provide illustrative examples, and offer recommendations for growth in this particular element.

Before we leave this chapter, consider the following reflective questions:

1. To what extent does your school have a "one-size-fits-all" curriculum with little space for students to pursue ideas and inquiries of their own choosing?
2. To what extent do teachers in your school have latitude to pursue "interesting" in the classroom—space with students to explore questions, events, and ideas that arise from diverse student backgrounds, news events, and experts in the field?
3. To what extent do state, ministry, and national assessments help and hurt the case for personalized learning?
4. To what extent are technological platforms and devices being viewed or used as a replacement for teaching rather than as powerful enhancements?

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