Personalized learning for every student every day

The best hope for accelerating student achievement is by using a range of pedagogical and technological innovations that deliver personalized learning to each student.

By Stacey Childress and Scott Benson

The class of 2025 will complete 1st grade in a few weeks. Last fall, those 6- and 7-year-olds strapped on backpacks and embarked on a path that their families hope will lead to a successful, productive life. More than ever, that path runs through college.

Students unprepared for college will have limited options for employment in a global economy where most jobs and industries will require some postsecondary education. In fact, in the 8th grade, 95% of students report they intend to go to college. This aspiration is virtually the same across income groups and geographies.

STACEY CHILDRESS (@nextgenstacy) is deputy director of education at the Bill & Melinda Gates Foundation and leads the Next Generation Learning team, which supports innovators who are creating breakthrough schools and technologies to help all young people reach their full potential. SCOTT BENSON (@Scott_E_Benson) is a program officer in the Next Generation Learning team at the Bill & Melinda Gates Foundation, focusing on making investments that accelerate the development and adoption of personalized learning models in schools and systems.
Approximately 70% graduate four short years later. But only 37% of all graduates and fewer than 20% of low-income students are prepared to succeed in college. These statistics are consistent across a number of proxies, such as ACT and SAT scores and college remediation rates. And while not all students will choose college, every young person should have a great, free public education that makes achieving their 8th-grade aspirations a viable option.

Will we make good on this promise for the class of 2025 before graduation day?

So far, despite the steady progress to improve student achievement across the country, the probable answer is “not likely.” Faced with an urgent need for results amidst increasing budget constraints, many schools are being redesigned to help every student get what they need to reach their own aspirations by creating more personalized learning environments.

### Personalized learning

Since having a teacher for every single child in America is impractical, many educators are exploring more scalable ways to produce gains in student performance similar to those obtained by one-on-one instruction. One promising approach is the personalized learning instructional models.

By personalized learning, we simply mean that student learning experiences — what they learn, and how, when, and where they learn it — are tailored to their individual needs, skills, and interests, and that their school enables them to take ownership of their learning.

Although where, how, and when they learn might vary according to their needs, students also develop deep connections to each other and their teachers and other adults.

When done well, personalized learning can meet all students where they are, motivate them based on their interests and academic level, accelerate their learning, and prepare them to become true lifelong learners.

Personalized learning challenges traditional school design by moving away from a teacher leading the whole class in a common lesson. Instead, each student can follow an optimal learning path and pace through a mix of instructional methods, including individual and small-group time with teachers, group projects, and instructional software. Early evidence indicates that personalized learning can empower and support teachers to meet student needs (Hassel & Hassel, 2011).

Many innovators are exploring promising options to accelerate learning for students. The Bill & Melinda Gates Foundation is supporting these innovators so they can strengthen promising approaches, identify what works, and spread those models and practices to other school networks and districts.

### A Silicon Valley project

Summit Public Schools in San Jose, Calif., operates six charter schools in the heart of Silicon Valley. Despite the area’s wealth, the schools serve a significant population of low-income and immigrant families. Only 39% of Silicon Valley’s public high school students complete the right courses to be eligible to
attend a four-year college.

Since its founding in 2003, Summit has focused on a college-preparatory curriculum for all students and has tried to support teachers in differentiating instruction. The results have been impressive. Since 2007, almost all of Summit’s 12th graders have been accepted to at least one four-year college, and standardized test scores have climbed. Recently, Summit has adapted its model to promote personalized learning.

When Summit administrators analyzed data on the school’s graduates who went on to college, they noticed that many were not prepared for college-level math. They needed remedial courses, which slowed them down and often led to them dropping out. Summit’s leaders didn’t want their graduates to struggle in college. So they began looking at ways to improve math preparation. After consulting faculty and outside experts, they became convinced that a blended learning model could help students improve. Eventually, Summit partnered with the nonprofit Khan Academy, which offers more than 3,000 free, online math and science video lessons and practice exercises. Teachers worked with Khan Academy staff to develop a blended math model that would personalize learning for students.

On a given day in a two-hour math block, for example, teachers might start by explaining an algebra concept. Students might then grab laptops from a shelf and log into a portal that features an individualized playlist showing exercises and concepts they have completed along with recommendations for what they should do next — a sort of combination of Facebook, Netflix, and iTunes. The playlist gives students access to a range of resources, from Khan Academy videos to other online activities to learning resources created by Summit teachers.

**Teachers as curators**

Teachers curate materials for student playlists and help them set their own weekly goals. As students advance at their own pace, teachers can devote their attention and instruction where it’s most needed. Teachers and students receive immediate feedback and can adjust accordingly. As one teacher said, “Before you had to teach to the middle. Now you can deliver 35 different experiences” (Bernatek, Cohen, Hanlon, & Wilka, 2012, p. 10).

This school year, based on what they learned in the pilot, Summit expanded and modified the model — described as “optimal learning” — to focus on three core design principles:

- Blend technology and face-to-face learning experiences for students;
- Allow students to self-direct their learning.

For example, teachers broke down the traditional divisions of math subjects — algebra, geometry, and so on — and developed a math guide based on a logical sequencing of skills. To make math blocks more student-driven, school leaders strengthened the playlist model, which required students to take more ownership over setting and meeting their learning goals.

Summit constantly adjusts its model based on student and teacher feedback. For example, students requested more one-on-one tutoring instead of group instruction to supplement their individual learning. In response, the school developed a Tutoring Bar based on the Apple Genius Bar concept, so that any

**“Important . . . should be required reading for educators, parents, and school boards.”**

—Kirkus Reviews

**“An award-winning principal and scholar, Burris weaves her rich personal experiences in detracking with a deep knowledge of the research and illustrative case studies in other schools and districts. . . . Readers from all backgrounds will find insights and motivation to move . . . to make our schools dramatically more educative and inclusive.”** —Kevin Welner, professor of education policy, University of Colorado–Boulder

**“Offers a compelling story of efforts to change the practice of tracking and a passionate argument for educational equity—and excellence—for all students as education reform moves forward.”** —Booklist

---

**Important . . . should be required reading for educators, parents, and school boards.”**

—Kirkus Reviews

**“Offers a compelling story of efforts to change the practice of tracking and a passionate argument for educational equity— and excellence—for all students as education reform moves forward.”** —Booklist

**“An award-winning principal and scholar, Burris weaves her rich personal experiences in detracking with a deep knowledge of the research and illustrative case studies in other schools and districts. . . . Readers from all backgrounds will find insights and motivation to move . . . to make our schools dramatically more educative and inclusive.”** —Kevin Welner, professor of education policy, University of Colorado–Boulder

---

**“Important . . . should be required reading for educators, parents, and school boards.”**

—Kirkus Reviews

**“An award-winning principal and scholar, Burris weaves her rich personal experiences in detracking with a deep knowledge of the research and illustrative case studies in other schools and districts. . . . Readers from all backgrounds will find insights and motivation to move . . . to make our schools dramatically more educative and inclusive.”** —Kevin Welner, professor of education policy, University of Colorado–Boulder

**“Offers a compelling story of efforts to change the practice of tracking and a passionate argument for educational equity—and excellence—for all students as education reform moves forward.”** —Booklist

---

**Important . . . should be required reading for educators, parents, and school boards.”**

—Kirkus Reviews

**“Offers a compelling story of efforts to change the practice of tracking and a passionate argument for educational equity—and excellence—for all students as education reform moves forward.”** —Booklist

---

**Important . . . should be required reading for educators, parents, and school boards.”**

—Kirkus Reviews

**“Offers a compelling story of efforts to change the practice of tracking and a passionate argument for educational equity—and excellence—for all students as education reform moves forward.”** —Booklist
student with a problem can receive one-on-one tutoring any time of the day. The school also offers a range of group immersive experiences, or expeditions, to teach students to apply critical thinking skills to real-world problems.

Teachers are now able to reach each student in a personal way. And students are driving their own learning with a clear view of their own goals and a path to achieve them. Importantly, by the fifth year of operation, Summit expects to be using only public revenue for its blended learning model, making it sustainable and replicable without relying on philanthropy.

Because students’ lifelong opportunities are at stake, innovations in personalized learning must be held to a high standard of evidence about what works and what doesn’t.

Summit plans to extend these concepts to all other subject areas. They are also growing, with six schools currently open and two more scheduled for 2014 and 2015, and are now adopting these approaches in all of their new and existing schools that historically used more traditional instructional approaches. What distinguishes Summit’s leaders is their bold willingness to totally redesign their school and continue changing in order to help students achieve lasting success.

**Whittemore Park Middle School**

Personalized learning isn’t just for charter school students. At a public school surrounded by neglected buildings, public housing, and gang activity, and in a state with one of the nation’s lowest high school graduation rates, something incredible is happening.

When 6th graders arrived at Whittemore Park Middle School in Conway, S.C., in fall 2013, they found themselves at a transformed 6th- to 8th-grade school that provided personalized learning experiences for students. Instead of receiving instruction from a teacher at a chalkboard in a traditional classroom, students are at the center of their own educational experience.

Whittemore Park is the lowest-performing school in the Horry County School District. Most students are low-income and are among those traditionally least likely to graduate college- and career-ready. The district gave Whittemore Park Principal Judy Beard broad discretion to work with her leadership team and teachers to rethink what their school would look like and how it might operate. After exploring different options, they embraced personalized learning.

With encouragement from the district and a startup grant from the Gates foundation’s Next Generation Learning Challenges, Whittemore Park is implementing a new instructional model called iCAN (Individualized, College and career readiness, Aspirations of students, and Network of support). Its goal is to provide students an unprecedented level of personalization, preparing each student to graduate on time, college- and career-ready.

They’re redesigning the school using a competency-based approach to learning, where students take a personalized set of classes based not on traditional grade levels but on skill level. For example, students aren’t 6th graders anymore—they are “first years.” Students follow their own schedules, receiving the majority of their lessons digitally. Teachers work with students to develop and execute learning plans carefully designed to meet them wherever they are, interact with students in small groups, and...
use data from assessment tools to gain a deeper understanding of each student’s individual abilities and needs. They are aided by support staff and empowered by technology to better tailor their instruction and reach each student on a more meaningful level.

Whittemore Park students meet daily with their assigned iCAN Academy Groups — cohorts of classmates who receive academic and social support together and benefit from weekly advising, biweekly mentoring, and other elements of a holistic education. They also take exploratory courses in topics ranging from robotics to choral music that are designed to nurture students’ individual interests and talents.

The new model breaks down traditional school walls, allowing students to access digital content and lessons online so they can learn anytime, anywhere. For a generation that spends most of its time on mobile phones, this makes a lot of sense.

Through an extensive network of support and professional development, teachers receive the same benefits of personalization and feedback. The school is working with external partners who offer additional expertise and insight, including local higher education institutions and digital content providers who will help ensure students receive quality digital instruction that works for them.

Whittemore Park is demonstrating how schools, with district support, can advance personalized learning. What makes this school particularly exciting and inspiring is the willingness of its teachers to not just settle for tinkering at the margins but to innovate and rethink the entire design in service of students.

New York City iZone 360

In a community defined by diversity, New York City school officials understand that personalizing education could have a big effect on student achievement. In 2010, the city launched the Innovation Zone (iZone), a districtwide effort to support and encourage schools to combine technology-based and teacher instruction to promote student-centered learning. The initiative started with 81 charter and traditional schools throughout New York’s five boroughs and is on course to reach 400 schools this year.

Part of this effort is called iZone360, and it’s the front line for full-scale blended learning experimentation. iZone360 schools have the chance to redesign themselves around personalizing learning so students can progress at their own pace. A series of design and planning events, along with continuous support and guidance offered by the program, help educators build a new model for their participating school (New York City Department of Education, n.d.). The district is encouraging schools to toss out the rule book and rethink every aspect of what makes a school effective, including budgets, staff, spaces, schedules, instruction methods, and technology.

For example, the New Design High School offers teachers extra pay to come up with new practices to test in the classroom. In response, instructors have developed a one-on-one coaching project where teachers help students establish and pursue goals. The school has adopted an online dashboard to document and critique lesson plans and give students instant feedback. Student projects mix in-class assignments with online components (Cromidas, 2011).

All of these strategies are monitored and evaluated, and those that show promise can be adopted by other schools looking to try something new.

At Brooklyn High School of the Arts (BHSA) — the first arts school accepted into the iZone360 program — educators use technology to engage their arts-focused students in academic coursework and enhance the flow of teaching. For example, in drama courses, students write plays based on filmed interviews with family members and acquaintances recalling major historical events.

Beyond technological engagement and innovative coursework, the arts-focused school’s iZone360 experimentation extends to their list of courses. The school also uses Skype to offer more classes by having teachers from different schools teach via videoconference. Additional language and Advanced Placement courses are also offered online. The school’s goal is to move toward a blended, rigorous, and personalized curriculum, which engages students’...
artistic talents and interests and pushes them academically.

The iZone opens the door to pioneering teaching practices that can be tested and improved based on immediate results. Teachers and school leaders have the autonomy to design new approaches to personalized learning and also build partnerships with external experts to provide additional expertise and support. As one New Design High science teacher said, “It’s about making a mess, trying new things” (Cromidas, 2011).

What makes the iZone so powerful is that the city itself is supporting a culture of innovation that empowers schools to let go of old ways that don’t work and find something that does.

Conclusion

Promising examples are important and exciting. But because students’ lifelong opportunities are at stake, innovations in personalized learning must be held to a high standard of evidence about what works and what doesn’t. With Gates foundation support, the RAND Corporation is addressing five research questions in a multiyear study that currently includes more than 40 personalized learning schools with additional schools joining each year:

• How do students attending the schools perform on measures of academic achievement?
• How do the schools compare to more traditional schools?
• What are the defining characteristics of the schools, including the use of technologies, roles of teachers, experiences of individual students, and approaches to student progression?
• How are school characteristics, such as pedagogical approaches and particular learning technologies, related to academic outcomes?
• How do students attending the schools perform on measures of broader cognitive skills such as nonroutine problem solving and critical thinking, and on measures of interpersonal and intrapersonal skills and attitudes?

The study includes student-level learning outcomes as well as school-level attendance, behavior, persistence, and graduation rates relative to matched comparison groups. Student surveys will be used to examine students’ interpersonal and intrapersonal skills and attitudes. Over the next few years this study will generate rich information about personalized learning schools.

In the meantime, we’re seeing early evidence that personalized learning approaches have the potential to not only accelerate student learning but also to give young people the skills to navigate their own learning. Less than a month into Summit’s personalized learning pilot, a young man raised his hand and said to his teacher, “I think I’m behind.” Based on this student’s transcript and records, he had been behind his entire academic career. And yet, like many students, he had not fully grasped just how behind he was. In a traditional classroom setting a student may feel as though he’s making progress because everyone around him is progressing. The forward movement required in group instruction can obscure an individual’s struggles.

Now, for the first time in his life, when given control over his own learning and told to choose his own goals and complete his own assessments, this young man finally saw that he wasn’t moving forward and the consequences of his poor performance. He then felt empowered to raise his hand, ask for help, and start taking ownership of his own learning.

This is the power of students owning their own learning, which has implications far beyond the graduation stage. Today’s students will create the jobs of tomorrow. They must be prepared to master core math and literacy skills, learn new material, and demonstrate their knowledge in an environment that will prize resourcefulness and innovation. This is what it means to prepare today’s young people for tomorrow’s challenges. Personalized learning has the potential to prepare all students to pursue their passions and achieve their dreams.

References


Greater understanding of effective instructional practices in relation to the redesign of learning spaces is beginning to take shape across the nation, and beyond. The industrial-age model of students in rows, churning out work in mirror image of one another no longer meets the needs of today’s 21st century learners.

The basic design of classrooms in the United States for the past 100 years or so is rooted in a construct where efficiency and uniformity of outcomes is viewed as tantamount to producing students with a very specific and often narrowly defined set of skills.

Sir Ken Robinson, celebrated author and creator of the first TED Talk to reach 10 million views, points out the pressing need to fundamentally change the instructional approaches and environments found in the majority of public schools. He advocates the need to address three fundamental qualities in all students: uniqueness, curiosity and creativity. To help each child flourish and achieve her potential, the design and delivery of instructional learning spaces and practices must change. From active learning spaces to ambiance in those spaces, and from learner-centered practices to the role of digital tools, learning environments are primed for a creativity revolution.

Creating learning spaces

The Common Core State Standards provide needed guidance regarding the goal of preparing our students to be college and career ready. Firmly embedded in the standards is the focus on creativity, critical thinking, collaboration and communication, identi-
fied as 21st century skills. While lectures have their place, flexible learning spaces are needed to provide the types of experiences where students can reach their full potential.

The creative use of space in classrooms and other environments, including libraries and media centers, can motivate and promote learning. Likewise, supportive collaboration and deeper social connections provide a personalized and inclusive environment. Imagine students cozying up with a book in a reading nook, Wobble chairs, tables that can be easily moved with changing heights and writable surfaces, and standing desks. The design of individual spaces should be:

- Flexible – consider current and evolving pedagogies.
- Timeless – enable space to be reconfigured over time.
- Creative – inspire students and educators.
- Enterprising – spaces should support different purposes.

In “Designing New Learning Environments to Support 21st Century Skills,” Bob Pearlman highlights the design elements used in several innovative school districts throughout the United States. Elements found in these schools that were designed and repurposed included primary student work areas, presentation spaces, large group spaces, extended learning spaces and specialty labs.

Districts throughout California have started to adjust learning environments with furniture, creative spaces and labs. In the Vista Unified School District, a recently reconstituted Vista Innovation & Design Academy (VIDA) Middle School emerged in 2014. At VIDA, the focus is on sparking the creative genius of young innovators. But to do that, the school has had to re-imagine its use of space.

One of the creative ways VIDA uses space is in what used to be its library. VIDA now calls it the “Learning Commons” to emphasize the need for 21st century students to have highly flexible and adaptable learning environments. The majority of the furniture at VIDA is on wheels and has flip top tables, many with writable surfaces. VIDA also utilizes an assortment of mixed height desks and tables, in addition to a variety of types of seating.

“By re-imagining the traditional use of space on campus, we have created an environment for kids where they are building community in their own ways, in their own fashion, and with their own creative license,” said Founding Principal Eric Chagala. “It would have been disingenuous telling kids we wanted to launch their creativity when we had them sitting in traditional rows.”

Oxnard Union High School District just finished construction on its newest high school, Rancho Campana, designed with a focus on Linked Learning and the needs of a 21st century learner from the ground up. Superintendent Gabe Soumakian said the campus is designed to extend learning and facilitate work-based learning opportunities.

Consider the ambiance

Imagine students returning to school and a classroom where the walls, floors and colors were vastly different than they were accustomed to. The University of Salford School of the Built Environment imagined just that, and set out to study and report on the impact of the environments on learning. In 2012, the university conducted a study of 34 classrooms in seven schools, collecting data on student performance and engagement.

The role of technology

In a true learning environment of the 21st century, technology must be in the forefront. With the plethora of high-interest, interactive, on-demand digital resources, paper and pencil simply can’t compete as the only tools available in classrooms. What is needed in learning environments is access to devices that can access grade level content, integrate multi-media content (such as video, screen-casting, interactive story design), and inter-
Steps to a learner-centered environment

• Define what “learner-centered” will look like in your school/district.

• Create opportunities for educators to observe new environments and redefine instructional models.

• Provide professional learning opportunities to foster a new learner-centered culture.

• Take risks to play with furniture, lighting, and paint ideas to see what resonates with students and staff in your school/district.

• Integrate technology and digital resources.

• Empower administrators to design similar collaborative working environments for teachers and support staff

• Celebrate and share accomplishments with parents, school boards, community.

active simulations.

In 2012, the Alliance for Excellent Education developed “The Digital Learning Imperative: How Technology and Teaching Meet Today’s Education Challenges.” The report points out that digital learning has many complicated facets, including professional development, learning management platforms, tools and devices, digital content, and data and assessment. What it also points out is the way digital learning can better meet student needs than traditional lectures, research and note taking.

Technology and digital access can better support diverse learners, reduce dropout rates, improve attendance, and reduce the achievement gap (Alliance, 2009). For example, in rural areas, digital content can help students access courses where offerings might not be as plentiful. In rural Northern California’s East Nicolaus High School, digital content and access has provided opportunities to support underrepresented students.

The digital content has made a significant impact on learning, particularly in the area of STEM. Supported by Project Lead the Way, students are exposed to engineering principles, robotics and technology resources to support their interest to pursue careers in the STEM field they would not otherwise have had without access to digital tools.

Superintendent Karen Villalobos said, “Feedback from the first year of implementation was that students enjoyed the hands-on approach to teaching and the cohort had no attrition as the students move on to year two. In addition, ENHS now has ownership of the curriculum from year one and is able to provide STEM courses to future students. We are pleased to provide students with these future forward skills to move them into the 21st century.”

At Oxnard USD’s Rancho Campana High School, all students have their own devices and access to wifi the moment they step on campus. Classes are designed not only for students to have daily face-to-face time with teachers, but also to interact with teachers and classmates in a learning management system.

“When students are out, they have immediate access from home or any other place in the world to the lessons taught each day,” Principal Roger Adams said.

Developing first-hand experiences and allowing students to create products is another strength of digital resources in 21st century learning environments. When we buy things on Amazon or make a family webpage on Facebook, it’s not an act of being “techie,” it’s the norm.

“Our students teach themselves how to cook and do gymnastics with YouTube,” said Jon Corippo, academic innovation director at CUE. “Our students are makers and coders at home, and FaceTime with their parents. It’s now time for schools to take the lead in developing our students to their fullest potential. Technology, fully embedded into teaching and learning, can move students far away from the constrained learning potential of a worksheet dependent classroom.”

Becoming learner centered

Learning environments are in the midst of significant change in order to engage students in collaborative activities and innovative practices. Yet they are not just about the design, the furniture or the space. Classrooms are just as much about the instructional strategies and delivery models facilitated by educators, especially at the middle and high school levels.

Research is proving that the traditional teacher in front of the room with students aligned in rows may exist and, at times, may have a role in learning, but is simply not as effective as student-centered or “teacher as learning designer” models (Alliance for Excellent Education, May 2012). Regardless of room arrangement, teacher as facilitator, inventor, motivator and catalyst should be the starting point. Moving from “learning centered” to “learner centered” includes culture shifts such as:

- College and career ready expectations.
- Collaborative, relevant and applied learning.
- Personalized options with student voice and choice.
- Flexible anytime, anywhere learning.

Learner centered classrooms begin with educators who get to know their students personally, understanding their learning styles, strengths, weaknesses and passions.

Continued on page 32
Building a community while managing behavior is a balancing act, yet harkens us back to the one-room schoolhouses with different ages all encompassed under one roof, where differentiation and true understanding was a focal point.

Kevin Silberberg, superintendent in the Panama-Buena Vista School District, knows the importance of learner-centered schools. “The technology promise of today is about personalization,” he said. “For us our goals center around literacy – it’s the ‘center of our universe.’ If students are not at grade-level literacy, we can remediate. If students are above grade level, we can accelerate. The old models of adding more curriculum, pull-outs and aides is too expensive and have too many variables. Districtwide courseware, software that is driven by formative assessments, and professional development for our teachers is the direction we are going.”

Looking forward

We may not know the technologies of the future, or even the professions for which we prepare the students who enter our doors every day. What we do know is that we are the innovative designers in our schools who need to prepare students for these environments. We will still need places to house students, emerging technologies, and some sort of furniture.

The classrooms and meeting spaces we design for students need to be as dynamic as the world around them. The impacts of learner centered environments on student learning make a difference, from technology to furniture to the ambiance. As we design these new workplaces, we are revolutionizing our schools to help students better manage their attention and thinking.

References

• Zhao, Yong (2012), World Class Learners: Educating Creative and Entrepreneurial Students, Thousand Oaks, CA: Corwin Press.

Lisa Gonzales is superintendent in the Portola Valley School District, a #FutureReady superintendent and ACSA vice president. Charles Young is superintendent in the Benicia Unified School District. Both are members of TICAL, California’s Technology Information Center for Administrative Leadership.

Nature provides thrilling experiences, from short weekend get-aways to year-long expeditions. But because nature is unpredictable, the experienced traveler knows that having a knowledgeable guide to assist them on every journey is the key to a safe and successful adventure.

Since 1986, SELF has been the guide of choice through the wilderness of excess liability solutions for California’s schools and colleges. SELF is there to help its members prepare for any contingency and prevent most losses. But when the unavoidable does occur, SELF provides the catastrophic claim expertise and financial resources to help its members prevail and continue to deliver the finest in education without interruption.

Choose the right guide – choose SELF – the not-for-profit, member owned answer to catastrophic loss coverage.

Join our team now. Call 866-453-5300

Nature provides thrilling experiences, from short weekend get-aways to year-long expeditions. But because nature is unpredictable, the experienced traveler knows that having a knowledgeable guide to assist them on every journey is the key to a safe and successful adventure.

Since 1986, SELF has been the guide of choice through the wilderness of excess liability solutions for California’s schools and colleges. SELF is there to help its members prepare for any contingency and prevent most losses. But when the unavoidable does occur, SELF provides the catastrophic claim expertise and financial resources to help its members prevail and continue to deliver the finest in education without interruption.
Student Engagement:

These four elements can spark intrinsic motivation—
for English language learners and others.

Larry Ferlazzo

Bertrand Russell (1975) once wrote, “To understand the actual world as it is, not as we should wish it to be, is the beginning of wisdom.” His words are often quoted in the community-organizing world (where I worked for 19 years before becoming a teacher), and they’re worth remembering when we plan and evaluate our instructional practices, including personalized learning.

“Understanding the world as it is” means being realistic. And if we’re realistic, we’ll know that even when a particular instructional method has been studied under controlled conditions, found to be effective, and labeled “best practice,” none of that matters if students won’t do the work. Teachers in the real world recognize that although personalization has the potential to improve learning, our first job in applying any approach is to engage students in the learning process. And engagement is not about baiting a hook. It’s about helping students find their spark and make their own fire.

Researchers have identified four key elements that help develop this kind of student engagement (Ryan & Deci, 2000):

- **Autonomy** is the amount of power students have to determine what they’re doing and how they’re doing it. Typically, the more autonomy students have, the higher their level of intrinsic motivation.
- **Competence**, or self-efficacy, occurs when a student has the necessary skills to complete the assigned task successfully. “Growth mindset” notwithstanding, our students are not endowed with magical powers they can substitute for an adequate skill set. They won’t be energized by banging their heads against a wall if they have no hope of breaking through.
- **Relatedness** is created when students’ actions result in developing closer relationships with those whom they like and/or respect. In the classroom context, this is often about achieving high-quality relationships with teachers, as well as connecting with their classmates.
- **Relevance** means that students perceive the things we ask them to do as being in their own self-interest. Do the learning activities relate to topics that students are genuinely curious about? Do students believe that accomplishing the task or reaching the learning target will help them achieve a short-term or long-term goal?

Of course, in the real world, every lesson may not have a high concentration of all four of these elements. But speaking as a classroom teacher, I don’t believe it’s too much to expect that most of our lessons will have some degree of all of them. When autonomy, self-efficacy, relatedness, and relevance are combined, they have a cumulative, synergistic effect. Students feel that they have (and in fact they do have) more power to proactively determine their life paths. This sense
Key to Personalized Learning
of agency, in turn, increases the likelihood that they will be able to transfer what they learn to other contexts—and will feel that at least some of the work they do in school matters outside the school walls.

As we strive to create personalized-learning environments for our students, it’s essential that we keep these four elements of intrinsic motivation in mind. There are many ways in which we can capitalize on technology to weave engagement into our students’ day—and there are also plenty of effective non-tech strategies. Let me describe a few strategies that I’ve found effective. Although I’ve applied these strategies with English language learners (ELLs), they can be equally useful for other students.

**How to Promote Autonomy**

Researchers have found that providing different kinds of choice in personalized learning encourages autonomy (Goodwin, 2010). Stefanou, Perencench, DeCinto, & Turner (2004) identify three kinds of choice: organizational (for example, giving students a role in creating class rules or establishing due dates for assignments); procedural (for example, giving students a choice of media to present their ideas or of topics to study); and cognitive (encouraging student ownership of learning by asking them to justify or argue for their point, generate their own solutions, evaluate their own or others’ ideas, and so on).

So I suggested, “How about writing an essay trying to convince me which is the best team in the NFL?”

“I could do that?” he responded in amazement. I told him yes, provided he used the graphic organizer the rest of the class was using, which highlighted the important elements of a persuasive essay.

He worked intently for the remainder of the period. As he turned in his essay, he asked, “Can I write one on the best basketball team to make up for some of the work I missed?”

“Of course,” I answered. Coincidentally, the next week there was a teachers’ meeting with his mother. She had tears in her eyes as she held up John’s essay with the A it had earned. She told us it was the first essay John had ever completed.

**Tech example:** Every Monday, ELLs in my Beginners English class complete a form on which they can identify anything they want to learn during their allotted computer time, as long as it promotes their language development. Students might write, “Learn eight irregular verbs and how to use them,” “Learn more about the history of Mexico—in English,” “Earn 600 points in Duolingo,” “Learn 20 words related to food,” and so on. At the same time, they choose how their learning will be assessed on Friday—by taking a test, giving a class presentation, creating a poster, composing and performing a short play, or another idea they have. For the most part, students research their topics using the wide variety of resources posted on our class blog (www.sacschoolblogs.org/larryferlazzo), but they are free to explore the Internet and choose other resources. According to some researchers, this kind of cognitive
choice (in which students have wide latitude in determining both what they learn and how they’re assessed) can promote the highest levels of self-motivation (Stefanou et al., 2004).

**How to Promote Competence**

We feel competent when we know we have the skills necessary to successfully accomplish a task. Competent learners have developed the ability to accurately assess their current capabilities and the belief that they can expand them through work and study.

**Non-tech example:** One approach that I’ve found particularly effective concept you learn in one place to a new environment) is so important in education, I often ask what, if anything, they learned in my class that they apply elsewhere. Since I began giving students more choice about what reading strategies they use in my classroom, the percentage of students who reply that they are using these strategies elsewhere has increased dramatically.

**Tech example:** Online tools can help students reinforce their sense of competence by promoting risk-taking. Making mistakes in grammar, articulating new knowledge, or experimenting with pronunciation feels less scary when we know that our mistakes will remain a secret between us and our computer.

My student Chang was a newcomer from China whose English was progressing rapidly in reading, writing, and listening. He was shy, though, and was almost completely unwilling to speak in English. I introduced him to the website English Central (www.englishcentral.com), which shows engaging closed-captioned videos, asks users to repeat the audio, and then automatically assesses their pronunciation. Within weeks after he began regularly practicing both at school and at home, Chang’s confidence and the quantity and quality of his English speaking had increased so much that, on occasion, I joked that I regretted showing him the site!

In fact, immediate feedback from a computer program can serve as a limited form of coaching—a crucial component of deliberate practice that supports mastery. There are plenty of free online tools that we can draw on to create a “choice menu” for students, giving them personal learning options for just about any subject imaginable (See “Online Tools for Personalized Learning: For ELLs and Others” on p. 33).

I’d offer one major caution about using technology to personalize learning and promote competence. Effective practice requires feedback and coaching. Such support might be adequately provided by a combination of feedback from the computer program and regular conversations between a student and teacher. But it also requires constant reflection by the learner on what he or she is doing right, could be doing better, and must do to improve enough to reach the next level.

Online tools seldom provide this reflective space, so we need to consider how we can make students’ work on the computer more comparable to deliberate practice. With my Beginning English students, I provide a simple form that they can use, in combination with our one-on-one conversations, for goal-setting and reflection on their work online. It contains three questions:

- *(Before you log in)* Today, I want to ___.
- *(At the end of class)* Did I achieve my goal? (yes or no)
- *(At the end of class)* These things helped me learn today, or didn’t help me learn today: ___.

For example, after using the reflection form and thinking about additional questions we had discussed in class, Rodrigo realized that although he had enjoyed using a site filled with English-language-learning games the most, he had learned more when he used an independent reading tool that provided audio and visual support to help the learner access more complex text. His realization didn’t mean that he never played the language games again, but he began spending more time—at home and at
school—on the reading site to reach his goal of English proficiency.

How to Promote Relatedness
In the context of intrinsic motivation, relatedness is about human connections. How can personalized learning help students feel more connected with others and feel cared about by people whom they respect?

Non-tech example: To enhance teacher-student relationships, I often take 15 minutes during my free period to walk, listen, and talk with individual students about their goals and interests. Many independent student projects, purchases of specific high-interest books, and important referrals to our counselor have come out of these conversations.

To enhance student-to-student relationships, we have a peer-mentoring system that’s especially effective for our 9th graders. Older trained student mentors meet weekly with their mentees to build relationships, discover problems (both at school and at home), and offer advice. The mentors regularly strategize with teachers on how they can be most helpful.

Tech example: I discovered one way of using technology to develop relatedness entirely by accident. Although our school is committed to welcoming newcomers, and we have many classes specifically geared to them, there is often one class period each day when it’s difficult to place these beginning English students in a regular learning environment until their English improves at least slightly.

During that class period, they’re often temporarily placed in an independent study skills class in my room, working on computers while I’m teaching a different class. There aren’t enough computers in this space, so the new students use an extension for their headphones to share the devices. At first I thought they would find this frustrating, but in practice, I see them constantly pointing at the screen and discussing the learning exercises they are using.

I haven’t subjected these impromptu learning sessions to rigorous scientific study, but initial assessment results suggest that students who share the computers improve more rapidly than those who use individual computers. In fact, even though we’ve increased the number of computers in my classroom, some students insist on sharing because, as one student told me, “We learn better by helping each other.”

How to Promote Relevance
Relevance occurs when students view school work as interesting and useful for improving their present lives or achieving their hopes and dreams.

Non-tech example: One lesson I often use in many of my classes has a particular tie-in to personalized learning. Students interview family members and acquaintances, neighbors and classmates, to identify issues of community concern. Through these conversations and classroom discussions about what they learned in their interviews, students determine a priority issue that they can take action on themselves.

Over the years, classes have organized job training fairs, mounted public outreach campaigns during the SARS epidemic, and helped educate cautious community members about the U.S. census and the need for people to answer the census questionnaires—just to name a few projects. Through such projects, students can gain a broader understanding of what “personalized learning” means. They realize that many of their personal interests and needs affect other people and that they often need to work with others to achieve positive results.

Tech example: All of the tech “personalized learning” activities described for autonomy, competence and relatedness can also support relevance to student interests and goals. Using the resources shown in “Online Tools for Personalized Learning: For ELLs and Others” and similar resources, I’m easily able to make learning English more personally relevant to each of my ELLs. Whether a student is interested in the construction, medical, or cosmetology fields, or loves to play soccer or basketball, or wants to study for a driver’s test, within minutes I can copy and paste accessible links to pages designed to teach English that contain content about those topics.

Which Kind of Experience?
A veteran educator once told me that a key question we teachers need to consider is which kind of experience we want to create for our students: a prepackaged, antiseptic tour, or an adventure-filled journey where they often take the path less traveled and can’t wait to see what they’ll find.
around the next bend.

A similar question faces advocates of personalized learning. Will students be presented with a confining list of options based on what a computer program determines they should be interested in and capable of doing? Or can we view personalized learning more broadly to include both tech and non-tech strategies that facilitate student agency and expand the universe of learning possibilities?

There are no magic bullets in education—or just about anywhere else. But if we keep in mind the four key elements required for developing intrinsic motivation—autonomy, competence, relatedness, and relevance—we might be surprised at how much personalized-learning magic can actually happen in our real-world classrooms.

References

Larry Ferlazzo (mrferlazzo@aol.com) teaches English, social studies, and International Baccalaureate classes at Luther Burbank High School in Sacramento, California. His books include Building a Community of Self-Motivated Learners (Routledge, 2015) and Helping Students Motivate Themselves: Practical Answers to Classroom Challenges (Routledge, 2015). He writes columns for both The New York Times and Education Week. Follow him on Twitter @LarryFerlazzo.

Online Tools for Personalized Learning: For ELLs and Others

These online tools provide self-paced materials, and some are adaptive (modifying what students see on the basis of their responses). All allow teachers to create virtual classrooms so that they can monitor student progress.

- **Duolingo** (www.duolingo.com) is probably the most popular language-learning online tool today. Many languages are available. (Free.)
- **USA Learns** (http://usalearns.org) is an internationally used site for learning English. It is sponsored by the Sacramento County Office of Education. (Free.)
- **English Central** (www.englishcentral.com/videos) lets users see videos, re-record the audio, and then assesses the accuracy of their pronunciation. (Many resources are free, although premium content is also available.)
- **Raz-Kids** (www.raz-kids.com) provides “talking books” at multiple levels that speak the text at the same time the words are highlighted. There’s a wide range of fiction and expository text. ($90 annually for one classroom of students.)
- **ReadWorks** (http://digital.readworks.org) has multiple texts with online assessments. (Free.)
- **Newsela** (https://newsela.com) provides several “levels” of the same newspaper articles, along with some online interactives. (Content is free, although there is a cost for creating a virtual classroom.)
- **Tween Tribune** (http://tweentribune.com) is from the Smithsonian and also offers several levels of the same newspaper article, along with quizzes. (Free.)
- **CommonLit** (www.commonlit.org) provides thematic reading collections with writing prompts. The site is planning to expand substantially over the next year. (Free.)
- **iCivics** (www.icivics.org) provides many social studies-related games and online activities, including ones targeting primary sources. (Free.)
- **ScootPad** (www.scootpad.com) has many online lessons on multiple subjects. (Free, but offers many additional premium features with a cost.)